

# Report on rapid assessment of sites of conservation interest along the Libyan coastline

By Abdulmaula Hamza





*The ancient port city of Apollonia, Sousse, Libya  
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## Report on rapid assessment of sites of conservation interest along the Libyan coastline

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This report has been elaborated in the GEF Mediterranean Sea Programme (MedProgramme) framework.

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Athrun, Al-Qubbah, Libya  
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Bombah, Derna District, Libya  
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## Executive Summary

The report presents the results of a rapid assessment conducted on sites of conservation interest along the Libyan coastline within the framework of MedProgramme's Child Project 3.1 on "Management Support and Expansion of Marine Protected Areas in Libya." The project is coordinated by UNEP-MAP MedProgramme and co-executed by three regional partners, including the Regional Activities Centre for Specially Protected Areas (SPA/RAC), IUCN Mediterranean Cooperation Centre, and the World Wide Fund for Nature (WWF North Africa office) in collaboration with the Ministry of Environment in Libya. The project aims to address the capacity barriers that hinder the sustainability and effectiveness of the Marine Protected Areas (MPAs) network in Libya by establishing management support mechanisms in priority MPAs. The report presents data on 26 coastal sites along the Libyan coast that feature specific biodiversity elements and are under environmental pressures that require both protection and mitigation. The data includes basic geographic, administrative, and ecological information, conservation and environmental status of each site, the active CSOs in the area, women's role, maps including preliminary borders of each MPA, terrestrial and marine areas targeted for protection based on a rapid survey conducted between August and November 2022. The survey also aimed to understand the anthropogenic pressures on each site. The report proposes protecting 3800.75 Km<sup>2</sup> of coastal terrestrial area and 7500.89 Km<sup>2</sup> of marine water along the Libyan coast, contributing to the "30X30" Global Biodiversity Target. The report also concludes that establishing MPAs is part of a broader strategy for promoting sustainable development and conservation in Libya and the Mediterranean region. It is hoped that the UNEP/MAP's Child Project 3.1 will help to address the capacity barriers that hinder the formulation, governance, sustainability, and effectiveness of the MPAs network in Libya.



# Introduction

The Libyan coastline is a region of great ecological and cultural importance, home to a diverse range of marine and terrestrial ecosystems that support various species and provide livelihoods for local communities. However, these ecosystems are threatened by multiple anthropogenic stressors, including changes in land use, overfishing, pollution, invasive species, and climate change. To address these threats, the UNEP/Mediterranean Action Plan (UNEP/MAP) has launched Child Project 3.1 on Management Support and Expansion of Marine Protected Areas in Libya, which aims to establish a network of Marine Protected Areas (MPAs) along the Libyan coastline. Establishing MPAs is a key strategy for conserving marine biodiversity and promoting sustainable development. MPAs are areas of the ocean where human activities are restricted or prohibited, allowing ecosystems to recover and thrive. They can help to protect important habitats, such as rocky bottoms, sandy beaches, and seagrass beds, and support the recovery of threatened species, such as marine mammals, sea turtles, seabirds, and sharks. MPAs can also benefit local communities economically through ecotourism and sustainable fisheries.

In this regard, the Mediterranean Cooperation Centre of IUCN (IUCN-Med) based in Malaga (Spain), in collaboration with the Regional Activity Centre for Specially Protected Areas (SPA/RAC) and WWF North Africa Office, is assisting the Ministry of Environment in Libya in the implementation of the GEF MedProgramme's Child Project 3.1. This GEF-funded project aims to enhance the protection of marine biodiversity and the management of Marine Protected Areas (MPAs). This will be done by developing an MPA governance structure at the national level, which will be supported through new onsite management units and updated management plans for selected pilot sites at Farwa, Gara, and Ain Al Ghazala MPAs.

As part of this project, a rapid assessment of sites of conservation interest was conducted between August and November 2022. The assessment covered 26 coastal sites along the Libyan coast that feature specific biodiversity elements and/or are under environmental pressures that require protection, in addition to some other sites that can be considered under the type of other effective conservation measures OECMs. Site data tables were designed to provide basic geographic, administrative, and ecological information and additional data on each site's present conservation and environmental status.

The results of this rapid survey reveal that many selected sites are home to important marine and terrestrial species, including sea turtles, dolphins, and migratory birds. However, these species are threatened by various anthropogenic stressors, including overfishing, pollution, and habitat destruction. The tables also highlight the increasing potential role of local CSOs in the site areas and the role of women in conservation efforts.

The data presented in the site tables will inform the establishment of MPAs along the Libyan coastline. The MPAs will protect the region's biodiversity and cultural heritage while promoting sustainable development and livelihoods for local communities. By establishing a network of MPAs, the UNEP/MAP MedProgramme hopes to address the capacity barriers that hinder the sustainability and effectiveness of the MPA network in Libya and ensure the long-term conservation of the region's unique ecosystems. Several sites along the Libyan coast can be good candidates for nomination as Special Protected Areas of Mediterranean Importance, which show their regional importance in terms of species diversity and

representativeness of important Mediterranean habitats and need further detailed studies and elaboration.

The sites of conservation interest inventory fall under Component 1: Improving Governance and Management Support, Outcome 1: Protection of marine biodiversity in Libya's Marine Protected Areas is enhanced through the development of an MPA governance structure at the national level and supported through new on-site management units, sustainable management plans and monitoring programs and networks, Output 1.2: Inventory of marine and coastal sites of conservation interest in Libya and monitoring programmes.

This component (Output 1.2) intends to characterise the marine and coastal sites of conservation interest via rapid biodiversity surveys at selected sites from the 24 sites identified in 2012 and any new sites of conservation interest, including some open water sites, to assess the quality of the ecosystems involved at each site and its floral and faunal communities, along with an understanding of the present and predicted and emerging threats that can alter such diversity, including coastal development, climate change, and biological invasions.

This rapid survey indicated the potential protection of 3800.75 Km<sup>2</sup> of coastal terrestrial areas and 7500.89 Km<sup>2</sup> of marine water areas along the Libyan coast, contributing to the 30 by 30 goal globally. These results have been presented at a national workshop on the inventory of marine and coastal sites of conservation interest in Libya, held on 26 January 2023 in Tripoli, with the broader conservation community and other relevant stakeholders in the country, including civil society organisations and relevant public institutes, before submitting the final results to the government for follow-up actions (See annexe 1, containing the list of participants).

This output is also based on the UN Environment Strategic Outcome 3.4, which involves monitoring, inventorying, and assessing biodiversity, focusing on endangered and threatened species, non-indigenous species, and key habitats.

The project aims to address many challenges faced by MPAs in Libya. One of the main challenges is the need for a national governance structure. Without a clear and effective management plan, MPAs can be difficult to manage and ensure that conservation objectives are met effectively. Another challenge is the need for a sustainable management and monitoring system. These policies and procedures are necessary to track progress toward conservation goals and make necessary changes in business practices.



# Methodology

The table below, within the methodology section, details all methods, performance indicators, and deliverables with a timeframe for each activity.

**Table 1: Description of activities, methodology applied, performance indicators, deliverables, and delivery timeline.**

| Activity                                                                                                                                                    | Methodology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Performance indicators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Deliverables/means of verification                                                                                                                                                                                                    | Delivery timeline |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <b>Activity 1</b><br>Desk based study to analyse the existing data on marine and coastal sites of conservation interest and prioritise sites to be visited. | The work started with collation of all published materials after the bench document (IUCN 2011) to gather all available data on the listed sites. Sites were prioritized based on good coverage of ecological features, such as habitats and species diversity and KBA criteria.                                                                                                                                                                                                                              | Desk based study completed.<br><br>Sites prioritized based on specific criteria                                                                                                                                                                                                                                                                                                                                                                                                                                           | Inception report workplan, detailed methodology (SDF), report format (Table of contents) and timeline                                                                                                                                 | 20 September 2022 |
| <b>Activity 2</b><br>Conduct at least one field mission to identify sites of conservation interest.                                                         | Based on the above method of selecting sites based on specific criteria, the list of sites of conservation interest will be produced and used to prioritize site visits. Two field missions were conducted between September and October 2022. Local CSOs and active stakeholders were involved in data collection, via gray literature, meetings and/or direct contact.                                                                                                                                      | <ul style="list-style-type: none"> <li>Field visits and rapid assessment inventory conducted at all priority sites.</li> <li>Local CSOs and other relevant stakeholders involved in the process and aware of the CP3.1 project and its importance.</li> <li>Data collected, taking into consideration the Standard data format developed by SPA/RAC, and the habitat taxonomy of coastal and marine ecosystems, as well as relevant data related to wetlands (Ramsar) and open water habitats, when applicable</li> </ul> | Draft inventory report.                                                                                                                                                                                                               | 20 January 2023   |
| <b>Activity 3</b><br>Assist IUCN-Med in organisation of a national workshop to present, discuss and validate the results of the survey                      | Assist the Ministry of Environment in logistical preparation of the workshop, including identifying a list of participants, gender balanced and geographically representative. Sending invitations and helping with selecting the venue and date.<br><br>Prepare all PowerPoint presentations and hard-copies of the draft report of the survey to be discussed in the workshop. Prepare a workshop report to IUCN-Med with details on the workshop participants, presentations, discussions and conclusions. | <ul style="list-style-type: none"> <li>Preparations for the workshop are completed on-time with the ministry of environment.</li> <li>PowerPoints and hardcopy of the reports produced.</li> <li>Workshop report edited and submitted to IUCN-Med for comments.</li> </ul>                                                                                                                                                                                                                                                | National workshop organised and draft report discussed and validated by relevant gender balanced and geographically representative stakeholders. Workshop report, including all PowerPoint presentations and minutes of the workshop. | 26 January 2023   |
| <b>Activity 4.1</b><br>Final report editing and submission                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Final report submitted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final report of the inventory, including recommendations based on the national workshop, consultations and the PowerPoint presentation.                                                                                               | 15 February 2023  |

## Criteria for selection of sites:

Various existing frameworks and protocols have been considered when formulating the criteria for site evaluation. The Special Protected Areas of Mediterranean Importance (SPAMI) under the SPA protocol, IUCN Key Biodiversity Areas, Ramsar criteria for wetland sites, CBD criteria of protected areas, and the Zone naturelle d'intérêt écologique, faunistique et floristique (ZNIEFF) have all been used in the development of these criteria.

The SPAMI criteria, which identify and protect important areas within the Mediterranean region, have been a basis for formulating the evaluation criteria. These criteria ensure the site meets the necessary standards and contributes to biodiversity conservation.

The IUCN Key Biodiversity Areas, recognised globally for their significance in terms of biodiversity, have also influenced the criteria. These areas are identified based on threatened species, endemic species, and exceptional ecological characteristics. Incorporating these criteria ensures that the site being evaluated possesses high biodiversity value.

The Ramsar criteria, initially developed for wetland sites, have been adapted to provide additional insights into the evaluation process. These criteria consider factors such as wetland functions, species diversity, and ecological processes, further enhancing the evaluation's comprehensiveness.

The CBD criteria of protected areas, established by the Convention on Biological Diversity, contribute to the evaluation process by considering representativeness, ecological connectivity, and management effectiveness. These criteria help assess the overall effectiveness of the site in conserving biodiversity.

Additionally, the ZNIEFF, a recognised natural area in France, adds another layer of evaluation criteria. This designation acknowledges areas of ecological, faunal, and floristic interest. Considering ZNIEFF criteria ensures that the site's ecological importance is considered.

The criteria are divided into two types (Table 2).

- 1. Priority 1 criteria:** Are deemed essential for the country and highly important during evaluation. These criteria directly contribute to the conservation goals and must be met by the site.
- 2. Priority 2 criteria:** This criterion was given to sites that require additional data for further evaluation and are characterised by vulnerability, fragility, sensitivity, and low recovery.

These criteria serve as indicators for potential issues and help guide future monitoring and assessment efforts. By incorporating these diverse criteria from various frameworks and protocols, the evaluation process becomes more comprehensive, ensuring that all relevant aspects of biodiversity conservation and ecological significance are considered. This approach allows for a thorough assessment of the site's value and aids in making informed decisions regarding its protection and management.



**Table 2 : Priority criteria used in the report**

**Priority 1 criteria are:**

- Uniqueness or rarity.
- Endemism.
- Special importance for life history stages of the species concerned: fish nursery areas, coastal lagoons.
- Importance for threatened or endangered species and habitats: the main species to be considered are: Sea Turtles (nesting sites), Monk seal, Cartilaginous fish species, Bird species (areas fulfilling IBA criteria), seagrass meadows, coralligenous, etc.
- Naturalness.
- Threats likely to impair the ecological, biological, aesthetic or cultural value of the area.

**Priority 2 criteria are:**

- Vulnerability, fragility, sensitivity.
- Presence of non-indigenous species.
- Low recovery, biological productivity, biological diversity.

# Identified sites of conservation Interest to be part of the Libyan network of Marine and Coastal Protected areas



- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| 1. Wadi Maseed                                          | 16. Tolmitah-Ugla rocky coast                     |
| 2. Wadi Turghat                                         | 17. Kouf Beaches                                  |
| 3. Ain Wadi Kaam                                        | 18. Sabkhat Ain Azzarga                           |
| 4. Sabkhat Qasr Ahmed-Taourgha Complex                  | 19. Sabkhat Ain Shakika (Ain Eshgaiga)            |
| 5. Ain Taourgha                                         | 20. Wadi Khalij                                   |
| 6. Sandy beaches and waters of Al Araar Bouerat Lahsoun | 21. Wadi Hamassah                                 |
| 7. Shash Beach                                          | 22. Gulf of Bumba and its islets                  |
| 8. Sabkhat Sultan                                       | 23. Abulfrais Beach                               |
| 9. Sandy beaches of Bishr, Ajdabiya and Zueitina        | 24. North beaches of Ain Al Ghazala               |
| 10. Garah Island                                        | 25. Beaches of Gurdaba Gulf of Burdiya (Bardiyah) |
| 11. Shat Elbadine                                       |                                                   |
| 12. Al-Mtefla Beach                                     |                                                   |
| 13. Sabkhat Jeliana-Benghazi                            |                                                   |
| 14. Ain Zayanah                                         |                                                   |
| 15. Sabkhat Alkuz                                       |                                                   |





# 01 Wadi Maseed

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Wadi Maseed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Region (Municipality)                        | Tripoli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Location                                     | 32° 47' N – 13° 42' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Quality and importance                       | <p>Spring-fed in origin, the Wadi Maseed flows through continental dunes (with reforestation using Acacia, Eucalyptus, and other alien species). Occasionally, after heavy rain, the sand bar is cut, and the wadi is connected to the sea. River water is fresh, quite deep in places, with reedy vegetation (Typha, Juncus, Phragmites). There is a relatively small area of open water and fringing vegetation of about 100 hectares at the mouth of the river, limited by the sandbar, a beach, and a rocky outcrop offshore. Extensive beds of Posidonia oceanica are present offshore.</p> <p>Karabulli is listed as an Important Bird Area (IBA) by BirdLife International because it meets criterion A3 for three biome-restricted species of the Mediterranean North Africa biome (<i>Alectoris barbara</i>, <i>Sylvia melanocephala</i>, and <i>Sylvia conspicillata</i>) and one species of the Sahara Sindian biome (<i>Turdoides fulvus</i>). Wadi Maseed is a wintering site for several SPA-listed seabird species.</p> <p>This site is a Potential site of national importance for Sandwich Tern. Other waterbird species reported here are gannet <i>Morus bassanus</i>, osprey <i>Pandion haliaetus</i>, moorhen <i>Gallinula chloropus</i>, stone curlew <i>Burhinus oedipnemos</i>, sanderling <i>Calidris alba</i>, common sandpiper <i>Actitis hypoleucos</i>, greenshank <i>Tringa nebularia</i>, great skua <i>Stercorarius skua</i>, Audouin's gull <i>Larus audouinii</i>.</p> <p>It is a popular destination for family excursions and picnics. It could become an excellent location for facilities such as a visitor centre and information panels, for raising public awareness, and for guided visits. The alien-introduced species should be removed progressively as native plants take over on the dunes.</p> |
| Future conservation actions (incl. OECMs)    | In a good status regardless the need to clear trash and identify the borders clearly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Threats                                      | Development, Waste disposal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Designation                                  | Declared as an MPA under the MOE decree 272/2021, no enforcement applied yet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Cultural importance of the site              | Recreational site during summer season.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Active CSOs in the site region               | Al-shaheed Association, Libyan Wildlife Trust, Libyan Birds Society                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Women role in the site                       | Education, Agriculture and livestock                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 25.37                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Proposed Marine Area (Km <sup>2</sup> )      | 21.65                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| SPA/BD protocol                              | Coastal wetlands (estuaries), dunes, sandy beaches, rocky beaches.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Ramsar                                       | Coastal/Marine F ("Estuarine waters, permanent estuaries and deltas"), partly Marine/Coastal E ("beaches of fine or coarse sand").                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ZNIEFF                                       | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|            |                                                                                                                                                                                                                                                                                                       |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Priority 1 | <ul style="list-style-type: none"> <li>• Special importance for life history stages of the species: fish nursery areas.</li> <li>• Naturalness.</li> <li>• Importance for threatened or endangered species and habitats (Birds)</li> <li>• Current situation (security, degradation state)</li> </ul> |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

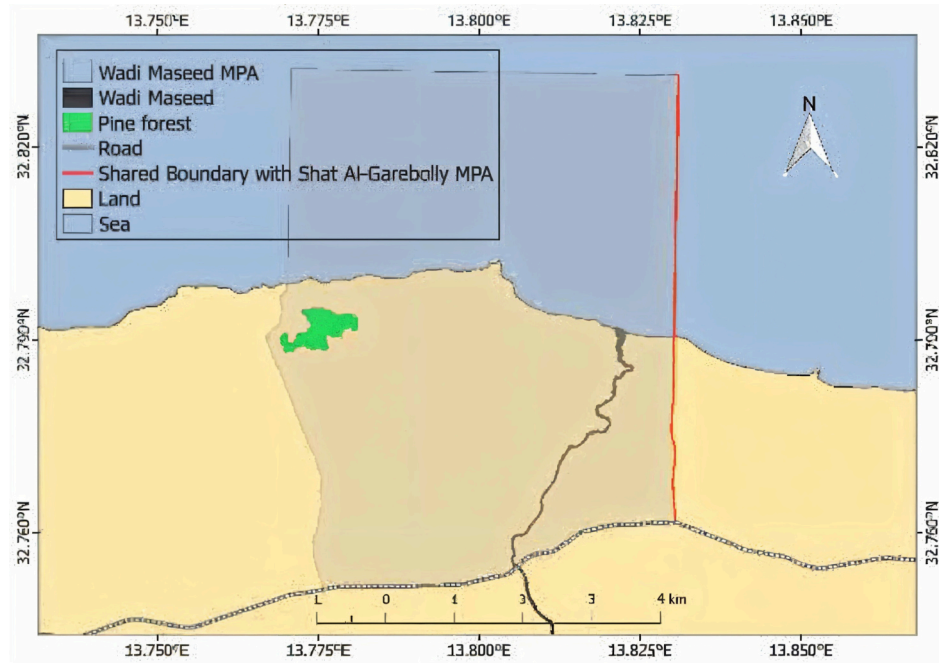


Figure 1 Proposed boundaries of Wadi Maseed protected area



Figure 2 An overview of estuary area of Wadi Maseed





## 02 Wadi Turghat

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Wadi Turghat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Region (Municipality)                        | Tripoli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Location                                     | 32° 47' N – 13° 49' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Quality and importance                       | <p>It is located east of Garhbuli (40 km east of Tripoli) and extends south to the Atlas Mountains (Nafoussa) in Libya up to Tarhuna. It empties into the Mediterranean Sea, where it overflows in winter. The basin of this valley has an area of 199 square kilometres.</p> <p>Wadi Turghat presents a similar range of habitats and species as the Wadi Maseed. The area is slightly larger in size, range, and number of waterbirds. The river mouth in the dunes includes fairly abundant fringing freshwater vegetation, not generally reaching the sea because of a sandbar at the mouth. The area is considered a vital stopover for trans-Saharan migrants, especially passerines, particularly on a northward passage in spring. The site is ranked 19th based on avian species richness (Atlas of Wintering Waterbirds, 2012) and is of national importance for coots <i>Fulica atra</i>. Other birds usual here are gadwall <i>Anas strepera</i>, pintail <i>Anas acuta</i>, pochard <i>Aythya ferina</i>, ferruginous duck <i>Aythya nyroca</i>, yelkouan shearwater <i>Puffinus yelkouan</i>, gannet <i>Morus bassanus</i>, great egret <i>Casmerodius albus</i>, spoonbill <i>Platalea leucorodia</i>, great crested grebe <i>Podiceps cristatus</i>, black-necked grebe <i>Podiceps nigricollis</i>, moorhen <i>Gallinula chloropus</i>, little ringed plover <i>Charadrius dubius</i>, great skua <i>Stercorarius skua</i> and kingfisher <i>Alcedo atthis</i>.</p> |
| Future conservation actions (incl.OECMs)     | The area requires control of alien vegetation and regulation of human uses. The site could be an excellent location for information, public awareness and education facilities and for providing services such as guided tours.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Threats                                      | Apart from Waste water intrusion, there was amounts of solid waste (plastics) in the water and on the rims needs some specific measures, locally and upstream.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Designation                                  | Declared as an MPA under the MOE decree 272/2021. Turghat forms the eastern boundary of the Karabulli (Al-Gharabolli) National Park.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Cultural importance of the site              | Recreational site during summer season.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Active CSOs in the site region               | Al-shaheed Association, Libyan Wildlife Trust.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Women role in the site                       | Education, Agriculture and livestock                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 8.49                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Proposed Marine Area (Km <sup>2</sup> )      | 6.71                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| SPA/BD protocol                              | Coastal wetlands (estuaries), also dunes, sandy beaches, rocky beaches.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Ramsar                                       | Coastal/Marine F ("Estuarine waters, permanent estuaries and deltas"), partly Marine/Coastal E ("beaches of fine or coarse sand").                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| CBD                                          | Scientific, educational or aesthetic interest. The existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| ZNIEFF                                       | Economic value, vulnerability.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Ramsar                                       | Criteria 2, 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Priority 1                                   | <ul style="list-style-type: none"> <li>Importance for threatened or endangered species and habitats: gull species wintering site.</li> <li>Naturalness.</li> <li>Existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area (waste dumping).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

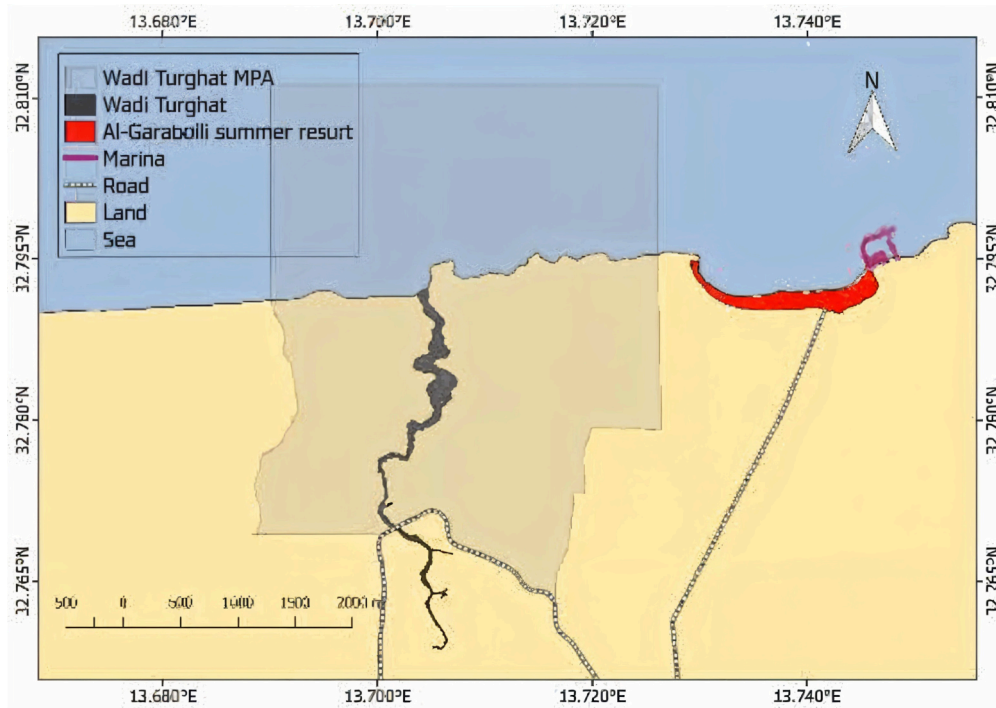


Figure 3 Proposed boundaries of Wadi Turgat protected area



Figure 4 An overview of the beach of Wadi Turgat protected area





## Ain Wadi Kaam

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                  | Ain Wadi Kaam                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Region (Municipality)                      | Almergeb (Khoms)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Location                                   | 32° 31' N – 14° 26' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Quality and importance                     | <p>Starting as a freshwater spring (Ain), it constitutes a river in the Kaam valley (Wadi Kaam) and an estuary at the river mouth. The area is an aquaculture site for freshwater fishes that uses tanks on land. Part of the water irrigates numerous small fields on both banks.</p> <p>This is an important spot for resident fauna and a stop-over point for migratory birds, cited in the literature as one of the most famous Tripolitania sites for ornithology, ranked 17th in species richness of wintering waterbirds, and some of these species are: Wigeon <i>Anas penelope</i>, pochard <i>Aythya ferina</i>, ferruginous duck <i>Aythya nyroca</i>, yelkouan shearwater <i>Puffinus yelkouan</i>, gannet <i>Morus bassanus</i>, cattle egret <i>Bubulcus ibis</i>, great egret <i>Casmerodius albus</i>, grey heron <i>Ardea cinerea</i>, purple heron <i>Ardea purpurea</i>, great crested grebe <i>Podiceps cristatus</i>, Osprey <i>Pandion haliaetus</i>, Water Rail <i>Rallus aquaticus</i>, moorhen <i>Gallinula chloropus</i>, coot <i>Fulica atra</i>, sanderling <i>Calidris alba</i>, ruff <i>Philomachus pugnax</i>, Caspian tern <i>Hydroprogne caspia</i>, sandwich tern <i>Sterna sandvicensis</i>, kingfisher <i>Alcedo atthis</i>. Ain Wadi Kaam is also potential site of national importance for: Audouin's gull <i>Larus audouinii</i>.</p> |
| Future conservation actions (incl. OECMs): | In a good conservation status, needs more measures of protection and site biodiversity assessment (other than birds).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Threats                                    | Water management could be a problem if the agricultural activities are expanded. The presence of large amounts of anthropogenic wastes is a problem to be tackled.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Designation                                | Declared as an PA under the MOE decree 272/2021.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Cultural importance of the site            | Popular recreational site during summer season & School visits.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Active CSOs in the site region             | Al-Shaheed Association, Libyan Birds Society, Libyan Wildlife Trust.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Women role in the site                     | Education, Agriculture and livestock                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Proposed Terrestrial Area (Km2)            | 38.26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Proposed Marine Area (Km2)                 | 26.76                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Habitat types                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| SPA/BD protocol                            | Mainly Coastal wetlands (estuaries), dunes, sandy beaches, rocky beaches.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Ramsar                                     | Mainly Inland M (Permanent rivers/streams/creeks), Coastal/Marine F ("Estuarine waters, permanent estuaries and deltas"), partly Marine/Coastal E ("beaches of fine or coarse sand").                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Criteria applicable                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| CBD                                        | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| ZNIEFF                                     | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Criteria for the Libyan coast              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Priority 2                                 | Vulnerability, fragility, sensitivity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

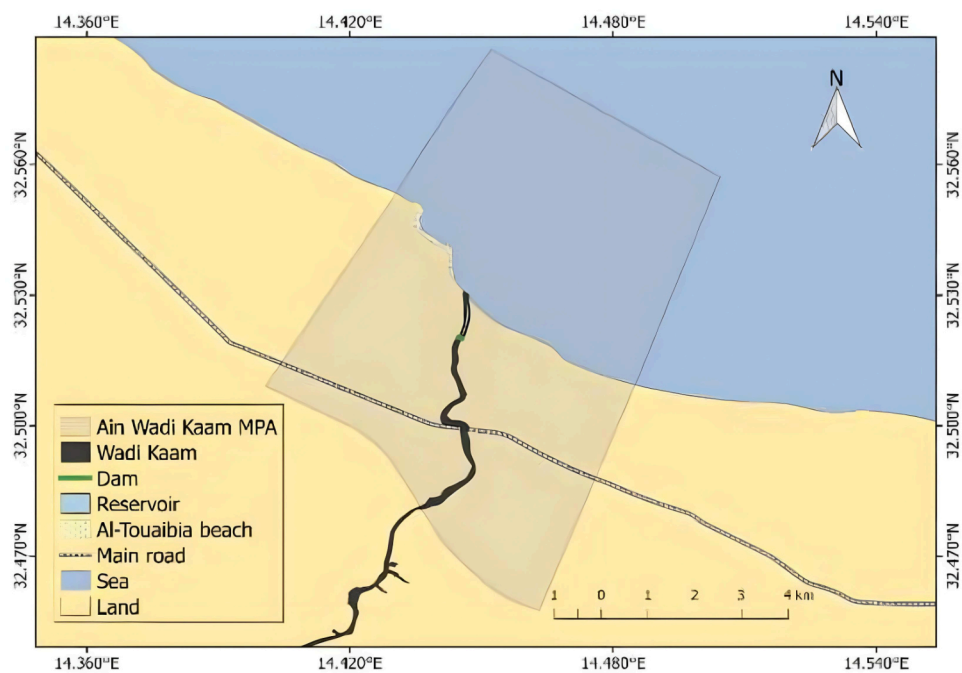


Figure 5 Proposed boundaries of Wadi Kaam protected area



Figure 6 An overview of Wadi Kaam protected area





## 04 Sabkhat Qaser Ahmed-Taourgha Complex

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Sabkhat Qaser Ahmed-Taourgha Complex                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Region (Municipality)                        | Misuratah                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Location                                     | 32° 00' N – 15° 19' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Quality and importance                       | <p>The largest coastal wetland of Libya and possibly of the whole Mediterranean. It is a single depression, nearly 100 km long, with very low saline waters or wet mudflats, scattered deeper areas, and some freshwater influxes from underground sources. The northern part of the huge sabkha system extends south and southwest to Hisha through Taourgha and Um Elazaam. The overall sabkhas included in this site are 16 sites. The proximity of the Mediterranean coast makes it important for wintering waterbirds, especially gulls and waders. Parts of Sabkhat Taourgha are important wintering sites for common cranes. Site of international importance for Kentish plover (Ramsar criteria 6).</p> <p>Potential site of international importance for slender-billed Gull.</p> <p>Site of national importance for: Audouin's Gull, black-headed gull, black-winged stilt, cattle egret, coot, crane, dunlin, greater flamingo, lesser black-backed gull, little stint, pintail, redshank, ruff, shelduck, shoveler, teal, glossy ibis, golden plover, little egret, mallard, marsh harrier, Mediterranean gull, moorhen, sandwich tern, wigeon.</p> |
| Future conservation actions (incl. OECMs)    | In near-natural condition except for the threat of dumping solid waste by the nearby city of Qaser Ahmed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Threats                                      | Urban waste, dumping, drought, unregulated local tourism, overfishing of sharks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Designation                                  | Declared as an MPA under the MOE decree 272/2021.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Cultural importance of the site              | Recreational site during summer season. Falconry may be practiced on limited level.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Active CSOs in the site region               | Libyan Organisation for Nature Conservation, Libyan Birds Society                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Women role in the site                       | No data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 2287.82                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Proposed Marine Area (Km <sup>2</sup> )      | 2667.32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| SPA/BD protocol                              | Salt marshes, salt steppes, salt scrub.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Ramsar                                       | Mainly Inland R (Seasonal/intermittent saline/brackish/alkaline lakes and flats), also partly Human-made 8 (Wastewater treatment areas)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| SPAMI                                        | <p>Scientific, educational or aesthetic interest.</p> <p>The existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| CBD                                          | Importance of threatened species and habitats, vulnerability, fragility, sensitivity, low recovery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ZNIEFF                                       | Economic value, vulnerability.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Ramsar                                       | Criteria 2, 3, 6.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Priority 2                                   | Vulnerability, fragility, sensitivity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

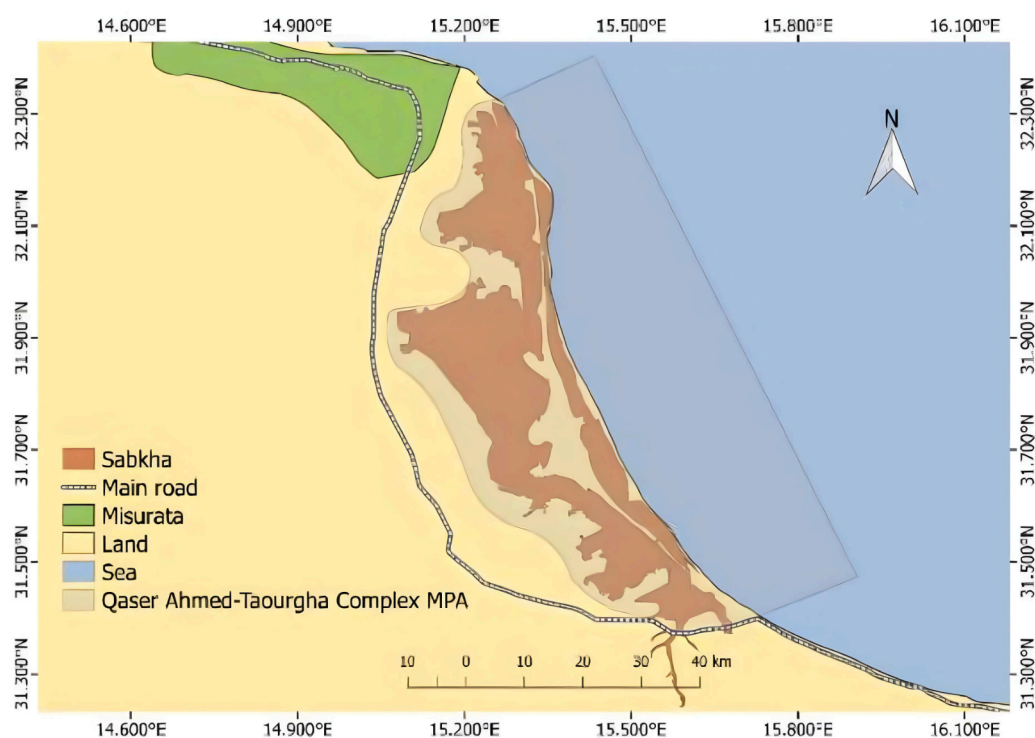


Figure 7 Proposed boundaries of Sabkhat Qaser Ahmed-Taourgha Complex protected area



## 05 Ain Taourgha

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                 | Ain Taourgha                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Region (Municipality)                     | Misuratah                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Location                                  | 32° 01' N – 15° 07' E (Map included in Sabkhat Qaser Ahmed-Taourgha Complex site).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Quality and importance                    | This natural freshwater spring is the central point of a small oasis and is surrounded by extensive salt marshes. The site is of major interest both culturally and in terms of biological diversity. The fauna includes several freshwater fish species, reptiles, and amphibians that require further surveys. Some waterfowl species are present year-round, while others are migratory and increase in number and diversity during winter. This site was ranked at 5th national position based on avian species richness. Site of national importance for black-winged stilt, cattle egret, crane, flamingos, shoveler. Potential site of national importance for the glossy ibis and the marsh harrier. The habitat here appears more suitable than elsewhere in Libya for the wintering and possibly the nesting of some bird species, such as the marbled duck <i>Marmaronetta angustirostris</i> . |
| Future conservation actions (incl. OECMs) | The traditional management of the spring and oasis is still functional, but partially neglected due to the population moving to the nearby town of Taourgha. Traditional modes of life and associated water management could be reinstated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|                                              |                                                                                                                                                                                                                                                    |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Threats                                      | The area's cultural heritage is neglected and the wetland is threatened locally by drought or misuse such as fires and clearance. It is important to note the presence in this area of infectious diseases like Schistosomiasis and Leishmaniasis. |
| Designation                                  | Not managed in present, some water management was done by the agricultural project.                                                                                                                                                                |
| Cultural importance of the site              | The area has rich cultural importance, as Taourgha tribes lives to the interior of the area, with unique cultural heritage for wetland-based communities. The incorporation of this in the management activities is a priority.                    |
| Active CSOs in the site region               | Libyan Organisation for Nature Conservation<br>Libyan Birds Society                                                                                                                                                                                |
| Women role in the site                       | Nature-based handicraft products, Agriculture and grazing.                                                                                                                                                                                         |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | Nature-based handicraft products, Agriculture and grazing.                                                                                                                                                                                         |
| Proposed Marine Area (Km <sup>2</sup> )      | Included within Sabkhat qasr Ahmed-Taourgha Complex                                                                                                                                                                                                |
| Habitat types                                |                                                                                                                                                                                                                                                    |
| SPA/BD protocol                              | Salt marshes                                                                                                                                                                                                                                       |
| Ramsar                                       | M -- Permanent rivers/streams/creeks.<br>R -- Seasonal/intermittent saline/brackish/alkaline lakes and flats.<br>Y -- Freshwater springs; oases.<br>9 -- Canals and drainage channels, ditches.                                                    |
| Criteria applicable                          |                                                                                                                                                                                                                                                    |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                   |
| KBA                                          | A declared IBA since 1992.                                                                                                                                                                                                                         |
| SPAMI                                        | • Site of Mediterranean importance for waterbird species.<br>• Representative site for Mediterranean saltmarsh habitats                                                                                                                            |
| ZNIEFF                                       | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                           |
| Ramsar                                       | 4                                                                                                                                                                                                                                                  |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                    |
| Priority 1                                   | Importance for threatened or endangered species and habitats: nesting and wintering of waterbirds<br>Uniqueness and rarity (largest freshwater spring in Libya with 2.4 cubic meter/ second).                                                      |





*Figure 8. A view of Taourgha spring waterways.*



## 06 Sandy beaches and waters of Al Araar- Bouerat lahsoun

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Sandy beaches and waters of Al Araar-Bouerat lahsoun                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Region (Municipality)                        | Misuratah (Gulf of Sirte, western side)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Location                                     | 31° 53' N – 15° 23' E (central point)- (Map included in Sabkhat Qaser Ahmed-Taourgha Complex site)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Quality and importance                       | <p>The area covers 70 km of sandy/partially rocky beaches from the town of Qaser Ahmed to Bouerat lahsoun, located on the western headland of the Gulf of Sirte, to be considered with the sea and adjacent Sabkhas on the land side.</p> <p>Several beaches along this coastal area were identified as critical nesting beaches for Loggerhead sea turtles, and they host an essential proportion of wintering waterbirds and other birds of prey in western Libya. The area is also one of the few landing sites for cartilaginous fishes <i>Carcharhinus brevipinna</i> and <i>Carcharhinus limbatus</i>. The spawning season starts from February to April. These species are caught by specific gillnets (Kellabia). Shorebirds are abundant in summer, the sabkhas (site no. 4, see above) behind the sandy beach dunes are healthy with less anthropogenic pollution compared to other areas, and it contains some mammalian wildlife that deserve further studies, such as red fox, jackals, and fennec zerda. several species of NIS have been recorded <i>Erugosquilla massavensis</i>, <i>Nerita sanguinolenta</i>, <i>Conomurex persicus</i>, <i>Nerita sanguinolenta</i> and <i>Lagocephalus sceleratus</i>.</p> |
| Future conservation actions (incl.OECMs)     | In good conservation status, regardless of some shark overfishing in May.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Threats                                      | Sand dune habitat disturbance, by 4-wheel drive vehicles. Turtle Egg poaching, and natural predation by mammalian predators, in addition to Shark fishing during breeding season, and bycatch of turtles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Designation                                  | Declared as an MPA under the MOE decree 272/2021. Managed seasonally during Seaturtle nesting season (May-October).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Cultural importance of the site              | Recreational area for families in the summer & Falconry.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Active CSOs in the site region               | AMWAJ Association, Libyan Organisation for Nature Conservation, Libyan Birds Society.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Women role in the site                       | No data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | Included within Sabkhat qaser Ahmed-Taourgha Complex.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Proposed Marine Area (Km <sup>2</sup> )      | Included within Sabkhat qaser Ahmed-Taourgha Complex.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| SPA/BD protocol                              | Dunes, sandy beaches, rocky beaches; hard bottoms; sands.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Ramsar                                       | <p>B -- Marine subtidal aquatic beds.</p> <p>E -- Sand, shingle or pebble shores.</p> <p>Ss -- Seasonal/intermittent saline/brackish/alkaline marshes/pools.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|                               |                                                                                                                                                                                                    |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CBD                           | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                   |
| SPAMI                         | <ul style="list-style-type: none"> <li>• Site of Mediterranean importance for sea turtle/ Seabird species.</li> <li>• Site of Mediterranean importance for Cartilaginous fish breeding.</li> </ul> |
| ZNIEFF                        | natural heritage value, economic value.                                                                                                                                                            |
| Ramsar                        | Criteria 1, 2, 4.                                                                                                                                                                                  |
| Criteria for the Libyan coast |                                                                                                                                                                                                    |
| Priority 1                    | Importance for threatened or endangered species and habitats: nesting and wintering of loggerhead sea turtles / seabird species.                                                                   |



*Figure 9. A view of Bouerat Lahsun coastal area.*





## 07 Shash Beach

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Shash Beach                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Region (Municipality)                        | Sirte (Gulf of Sirte)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Location                                     | 31° 13' N – 16° 18' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Quality and importance                       | <p>This sandy beach is 28 km long and 100-200 m wide. The western area of this beach is used by local inhabitants for recreational bathing, especially on weekends. A small landing site with a few boats is also present. The overall site includes six beaches (the Thalateen, west of the Thalateen, Shash, Tamit, the Alkhamseen, and the palm beach), including the area north of the coastal road and 6 km inside the sea, as well as the sabkha of the Alkhamseen located south of the coastal road, the total length of the beaches is about 34 km, and the total area is about 240 square kilometres, of which 80 square kilometres are the area of the fifty Sabkha. This area is characterised by the abundance and diversity of species of dolphins, cartilaginous fish <i>Carcharhinus brevipinna</i> and <i>Carcharhinus limbatus</i> spawning season started from February to April, and molluscs such as (<i>Tonna galea</i>), in addition to loggerhead sea turtles (<i>Caretta caretta</i>) that nest densely on these beaches. This beach is naturally protected due to barriers and tunnels that prevent access to the beach except through rough and branched roads similar to a maze, making them semi-protected beaches. These tunnels also provide shelter and potential nesting sites for various species of birds. The waters of this site are an important spawning area for cartilaginous fish in addition to the vast <i>Posidonia oceanica</i> meadows. This site is also a Potential site of national importance for lesser black-backed gulls during the winter.</p> |
| Future conservation actions (incl.OECMs)     | Declared as an MPA under the MOE decree 218/2022.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Threats                                      | Blast fishing, bycatch of turtles, sharks, and cetaceans, Tar ball pollution, Bird trapping, and plastic litter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Designation                                  | Managed seasonally during Seaturtle nesting season (May-October).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Cultural importance of the site              | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Active CSOs in the site region               | AMWAJ Association, Libyan Society for Birds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Women role in the site                       | Mainly, women have a significant role in Education, the Health sector, and Media                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 80.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Proposed Marine Area (Km <sup>2</sup> )      | 160.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| SPA/BD protocol                              | Dunes, sandy beaches, rocky beaches, hard bottoms, sands, marine vegetation beds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

|                               |                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ramsar                        | <p>B -- Marine subtidal aquatic beds.</p> <p>E -- Sand, shingle or pebble shores.</p> <p>Ss -- Seasonal/intermittent saline/brackish/alkaline marshes/pools</p>                                                                                                                                                                    |
| Criteria applicable           |                                                                                                                                                                                                                                                                                                                                    |
| CBD                           | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                   |
| SPAMI                         | <ul style="list-style-type: none"> <li>• Site of Mediterranean importance for sea turtle species.</li> <li>• Site of Mediterranean importance for seagrass communities.</li> </ul>                                                                                                                                                 |
| ZNIEFF                        | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                                                                                                           |
| Ramsar                        | Criteria 2, 4, 6.                                                                                                                                                                                                                                                                                                                  |
| Criteria for the Libyan coast |                                                                                                                                                                                                                                                                                                                                    |
| Priority 1                    | <p>Importance for threatened or endangered species and habitats: loggerhead sea turtles, cartilaginous fish nursery and fishing area. Historically a site with monk seal presence.</p> <p>Existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area: driving on sandy beaches.</p> |

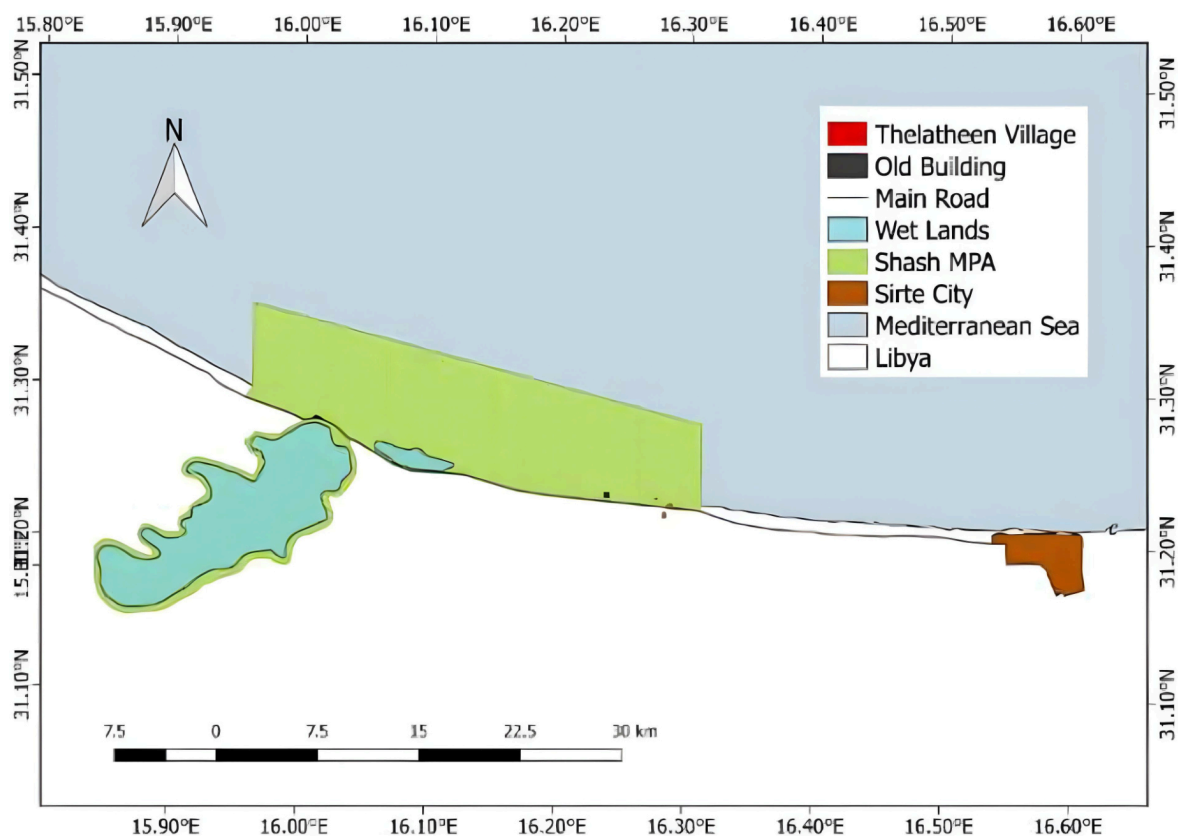


Figure 10 Proposed boundaries of Shash protected area



Figure 11 A View of Shah coastal area



## 08 Sabkhat Sultan

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                | Sabkhat Sultan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Region (Municipality)                    | Sirte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Location                                 | 31° 06' N – 17° 10' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Quality and importance                   | <p>An extensive Salt Lake covering some 2,000 ha behind the coastal dunes east of Sirte, towards the base of the Gulf of Sirte. Extensive fringing <i>Arthrocnemum</i> vegetation. Water was present during our visit rather deeper than at Taourgha Sabkhas, so conditions for water birds were good. It dries out in most summers.</p> <p>The Salt Lake runs parallel to the seashore. A nationally important site for Audouin's gull. Other birds on the site include the greater flamingo and Kentish plover.</p> |
| Future conservation actions (incl.OECMs) | Candidate for Ramsar Site                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |



|                                              |                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Threats                                      | Main coastal highway runs just by the wetland, which may cause some disturbance and potential for change of status because of greater accessibility, but no major problems apparent apart from use as a refuse dump.                                                                                                                                |
| Designation                                  | Declared as coastal Protected area under MOE decree 272/2021, but so far, no conservation measures are taken on the ground.                                                                                                                                                                                                                         |
| Cultural importance of the site              | The archaeological site of old Surt is next to the site.                                                                                                                                                                                                                                                                                            |
| Active CSOs in the site region               | AMWAJ Association, Green Footprint Organization                                                                                                                                                                                                                                                                                                     |
| Women role in the site                       | No data.                                                                                                                                                                                                                                                                                                                                            |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 56.147                                                                                                                                                                                                                                                                                                                                              |
| Proposed Marine Area (Km <sup>2</sup> )      | 118.745                                                                                                                                                                                                                                                                                                                                             |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                     |
| SPA/BD protocol                              | Coastal wetlands (lagoons) or Saltmarshes.                                                                                                                                                                                                                                                                                                          |
| Ramsar                                       | Inland R (Seasonal/intermittent saline/brackish/alkaline lakes and flats).                                                                                                                                                                                                                                                                          |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                     |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery                                                                                                                                                                                                                     |
| SPAMI:                                       | <ul style="list-style-type: none"> <li>• Site of Mediterranean importance for wintering waterbird species (incl. seabirds, such as Audouin's Gulls).</li> <li>• Scientific, educational or aesthetic interest.</li> <li>• The existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area.</li> </ul> |
| ZNIEFF                                       | Vulnerability, natural heritage value, aesthetic value.                                                                                                                                                                                                                                                                                             |
| Ramsar                                       | Criteria 2, 3,4.                                                                                                                                                                                                                                                                                                                                    |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                                                                                                                     |
| Priority 2                                   | Vulnerability, fragility, sensitivity.                                                                                                                                                                                                                                                                                                              |

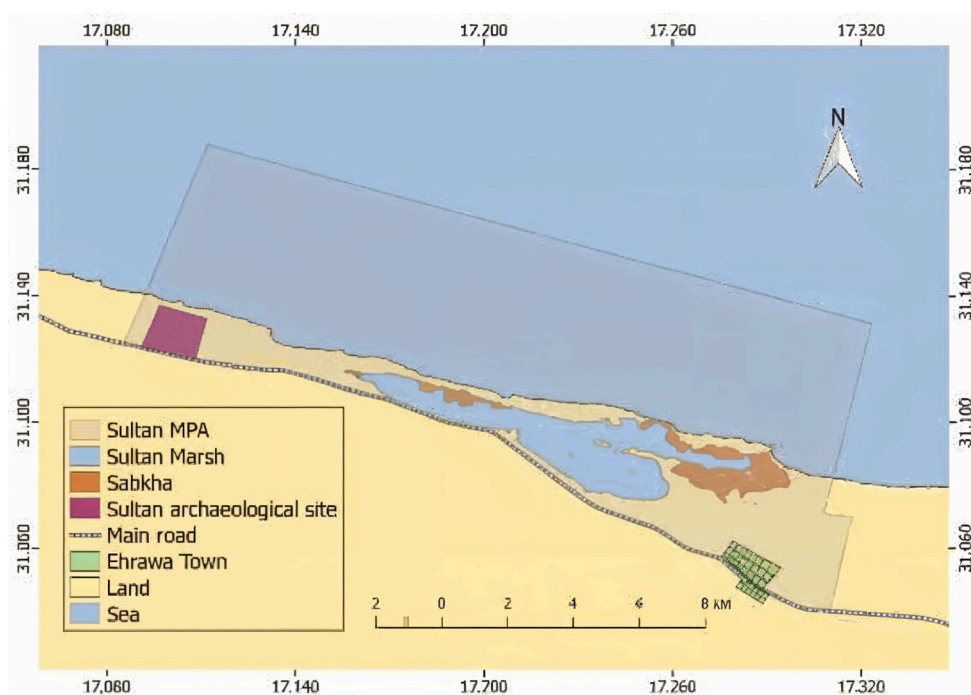


Figure 12 Proposed boundaries of Sabkhat Sultan protected area



Figure 13 A view of partially flooded Sabkhat Sultan protected area



## Sandy beaches of Bishr, Ajdabiya and Zwaitina

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Sandy beaches of Bishr, Ajdabiya and Zwaitina                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Region (Municipality)                        | Al Wahat (ex Ajdabiyah, Gulf of Sirte, eastern side)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Location                                     | From 30° 15' N – 19° 11' E to 30° 57' N – 20° 07' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Quality and importance                       | <p>This area covers about 100 km of sandy beaches with rocky areas, comprising most of the southeastern sector of the Gulf of Sirte and the southernmost point of the Mediterranean Sea.</p> <p>This area is highly understudied, but the information indicates excellent habitats for nesting loggerhead sea turtles, the passage of some migrant birds, and historic distribution beaches for monk seals. The area is also considered an important nursery for cartilaginous fishes (<i>Carcharhinus brevipinna</i> and <i>Carcharhinus limbatus</i>) that play a role in the establishment of populations of NIS (<i>Erugosquilla massavensis</i>, <i>Nerita sanguinolenta</i>, <i>Conomurex persicus</i>, and <i>Lagocephalus sceleratus</i>), due to the expected higher temperature in comparison with other areas in the north.</p> <p>Also, the beaches of Bishr and Agayla are famous for stranding debris brought by a circular current in the central Mediterranean, which may play a role in fish distribution at this location.</p> |
| Future conservation actions (incl.OECMs)     | In a good conservation status, requires more surveys and enforcement of measures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Threats                                      | Oil spill vulnerability, blast fishing, sea turtle egg poaching, hunting and trapping of migrant birds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Designation                                  | No designation yet, needs further study to assess the sea turtle nesting areas and seagrass habitat quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Cultural importance of the site              | No data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Active CSOs in the site region:              | No designation yet, needs further study to assess the Sea Turtle nesting areas and seagrass habitat quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Women role in the site                       | No data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 440.62                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Proposed Marine Area (Km <sup>2</sup> )      | 3685.51                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| SPA/BD protocol                              | Dunes, sandy beaches, rocky beaches, hard bottoms, sands, marine vegetation beds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Ramsar                                       | <p>B -- Marine subtidal aquatic beds.</p> <p>E -- Sand, shingle or pebble shores.</p> <p>Ss -- Seasonal/intermittent saline/brackish/alkaline marshes/pools</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



| Criteria applicable           |                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CBD                           | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                                                        |
| SPAMI                         | <ul style="list-style-type: none"> <li>• Site of Mediterranean importance for sea turtle species.</li> <li>• Site of Mediterranean importance for seagrass communities.</li> </ul>                                                                                                                                                                                      |
| ZNIEFF                        | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                                                                                                                                                |
| Ramsar                        | Criteria 2, 4, 6.                                                                                                                                                                                                                                                                                                                                                       |
| Criteria for the Libyan coast |                                                                                                                                                                                                                                                                                                                                                                         |
| Priority 1                    | <ul style="list-style-type: none"> <li>• Special importance for life history stages of the species: sea bird colony site (lesser crested tern, Mediterranean Shag), feeding of and nesting of sea turtles (nesting on near mainland).</li> <li>• Importance for threatened or endangered species and habitats: sea birds, monk seals (sighted). Naturalness.</li> </ul> |

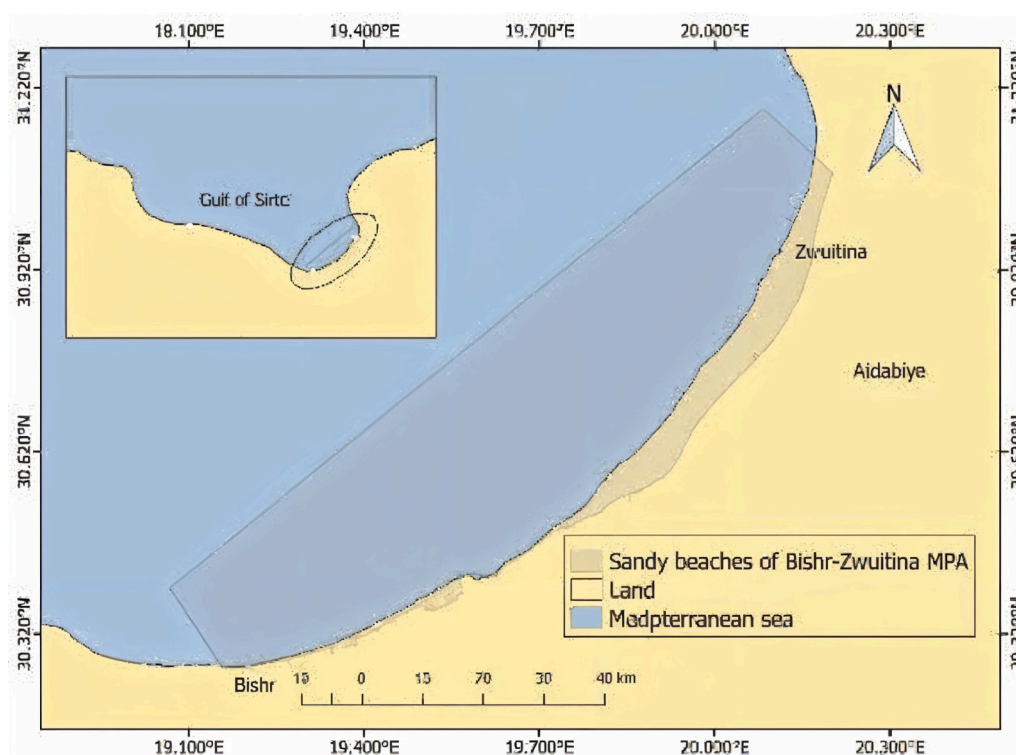


Figure 14. Proposed boundaries of Bishr, Ajdabiya and Zwuitina protected area



Figure 15 Satellite view of Bishr, Ajdabiya and Zwaitina protected area coastline (Google Earth)



## 10 Garah Island

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Garah Island                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Region (Municipality)                        | Ajdabiyah                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Location                                     | 30° 46' N – 19° 57' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Quality and importance                       | A five-hectare sandstone islands in the north-eastern part of the Gulf of Sirte, maximum 8 m above sea level, with low sandstone cliffs or gentle slopes surrounding modest hills with scattered rocks and low halophytic vegetation (mainly <i>Suaeda</i> and <i>Arthrocnemum</i> ) growing on sandy substrate. The most important breeding site for lesser crested tern <i>Thalasseus bengalensis</i> emigrata. Yellow legged gulls and Mediterranean shags. The Mediterranean monk seal has been recorded on the site and in surrounding waters. Several NIS ( <i>Erugosquilla massavensis</i> , <i>Nerita sanguinolenta</i> , <i>Conomurex persicus</i> , <i>Nerita sanguinolenta</i> , <i>Pterois miles</i> and <i>Lagocephalus sceleratus</i> ) have been found. There is pressure of fishing on <i>Epinephelus marginatus</i> . |
| Future conservation actions (incl.OECMs)     | During our visit in 2022, the site is still with favorable conservation status. Lesser crested tern colony was preparing to leave the island after another successful nesting season. Some trash drifted by sea accumulated to the shores of the island.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Threats                                      | In natural condition, however some solid wastes drifted to the island by sea and a few visitors.<br>Threats include: Oil pollution risk from nearby Zouitina terminal and passing tankers, blast fishing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Designation                                  | Declared as coastal Protected area under MOE decree 272/2021, it was selected as a pilot site for the CP 3.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Cultural importance of the site              | Some archaeological remains (graves).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Active CSOs in the site region:              | Alhayat Organization (Ajdabiya branch), Libyan Birds Society.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Women role in the site                       | No data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 0.02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Proposed Marine Area (Km <sup>2</sup> )      | 10.81                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Habitat types                 |                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPA/BD protocol               | Marine cliffs, rocky coasts, marine vegetation beds, hard bottoms.                                                                                                                                                                                                                                                                                                                 |
| Ramsar                        | D -- Rocky marine shores.                                                                                                                                                                                                                                                                                                                                                          |
| Criteria applicable           |                                                                                                                                                                                                                                                                                                                                                                                    |
| SPAMI                         | Site of Mediterranean importance for MAP seabird species.<br>Site of Mediterranean importance for seagrass communities.                                                                                                                                                                                                                                                            |
| ZNIEFF                        | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                                                                                                                                                           |
| Ramsar                        | Criteria 2, 4, 6.                                                                                                                                                                                                                                                                                                                                                                  |
| Criteria for the Libyan coast |                                                                                                                                                                                                                                                                                                                                                                                    |
| Priority 1                    | <ul style="list-style-type: none"> <li>• Special importance for life history stages of the species: sea bird colony site (lesser crested tern, Mediterranean shag), feeding of and nesting of sea turtles (nesting on near mainland).</li> <li>• Importance for threatened or endangered species and habitats: sea birds, monk seals (sighted).</li> <li>• Naturalness.</li> </ul> |

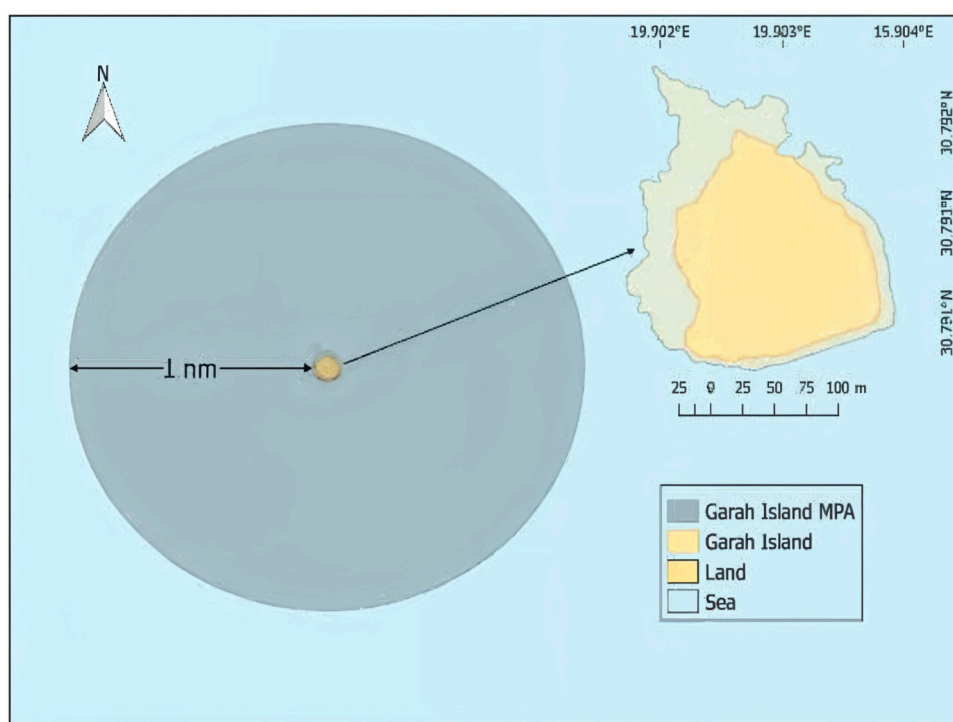


Figure 16 Proposed boundaries of Gara Marine Protected Area





*Figure 17. An overview of Gara Island.*



*Figure 18 Mediterranean shag and lesser crested terns during breeding season 2022 on Gara island.*



Figure 19 Underwater footage of Gara island.



## 11 Shat Elbaddine

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                | Shat Elbaddine                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Region (Municipality)                    | Ajdabiyah                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Location                                 | 32° 00' N – 15° 19' E                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Quality and importance                   | This small salty/brackish Sabkha, covering about 30 hectares, is located behind the coastal dunes, about 100 km south of Benghazi on the eastern coast of the Gulf of Sirte, with beach palms and halophytes dominating the plant cover. The sandy beach is an important loggerhead nesting site in eastern Libya. Audouin's gull and sandwich tern are common here during winter—some light agricultural activities around the site include herding sheep and goats. |
| Future conservation actions (incl.OECMs) | In a good conservation status.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Threats                                  | In near-natural condition, except for minor urban pollution from bathers.                                                                                                                                                                                                                                                                                                                                                                                             |
| Designation                              | Sea turtle egg poaching, driving vehicles on sandy beaches which destroys nests and wild flora on the dunes.                                                                                                                                                                                                                                                                                                                                                          |

|                                              |                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cultural importance of the site              |                                                                                                                                                                                                                                                                                                                           |
| Active CSOs in the site region:              | Green Footprint Organization, Benghazi , Alhayat Organisation (Ajdabiya branch).                                                                                                                                                                                                                                          |
| Women role in the site                       | Grazing                                                                                                                                                                                                                                                                                                                   |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 90.77                                                                                                                                                                                                                                                                                                                     |
| Proposed Marine Area (Km <sup>2</sup> )      | 77.97                                                                                                                                                                                                                                                                                                                     |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                           |
| SPA/BD protocol                              | Dunes, sandy beaches, rocky beaches, hard bottoms, sands.                                                                                                                                                                                                                                                                 |
| Ramsar                                       | B -- Marine subtidal aquatic beds.<br>E -- Sand, shingle or pebble shores.<br>Ss -- Seasonal/intermittent saline/brackish/alkaline marshes/pools.                                                                                                                                                                         |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                           |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                          |
| SPAMI                                        | Importance of threatened species and habitats, vulnerability, fragility, sensitivity, low recovery.                                                                                                                                                                                                                       |
| ZNIEFF                                       |                                                                                                                                                                                                                                                                                                                           |
| Ramsar                                       | Criteria 2, 4, 6.                                                                                                                                                                                                                                                                                                         |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                                                                                           |
| Priority 1                                   | <ul style="list-style-type: none"> <li>Importance for threatened or endangered species and habitats: loggerhead sea turtles.</li> <li>Existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area: turtle egg poaching, blast fishing, driving on sandy beaches.</li> </ul> |

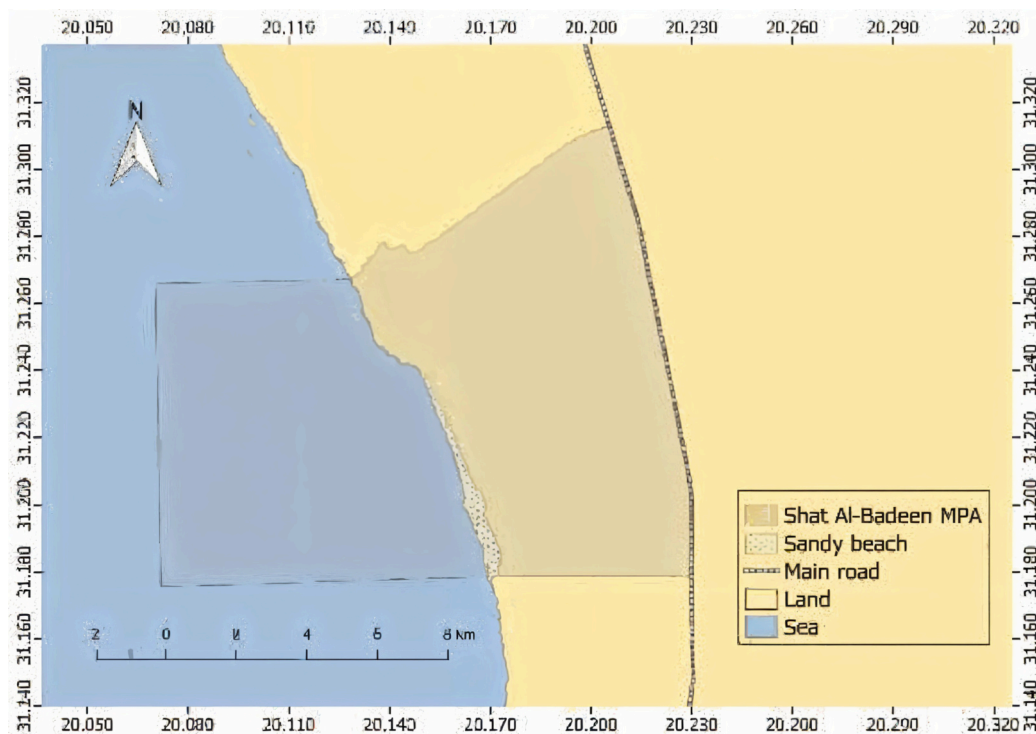


Figure 20 Proposed boundaries of Shat Elbadeen Marine Protected Area





# 12

## Al-Mtefla beach

|                                           |                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                 | Al-Mtefla beach                                                                                                                                                                                                                                                                                                                                           |
| Region (Municipality)                     | Benghazi                                                                                                                                                                                                                                                                                                                                                  |
| Location                                  | 31° 17' N – 20° 07' E                                                                                                                                                                                                                                                                                                                                     |
| Quality and importance                    | This low-lying sandy beach is located 100 km south of Benghazi. It extends over 4.5 km of coastline with moderate plant cover of mixed dunes and halophyte plant cover. The beach is a nationally important site for nesting sea turtles, and the salt marsh is an important wintering waterbird site—probable importance for summer breeding shorebirds. |
| Future conservation actions (incl. OECMs) | In near-natural condition, with increased amounts of urban solid waste drifting to the sea and left by visitors on site.                                                                                                                                                                                                                                  |
| Threats                                   | Natural predation of seaturtle nest and some egg poaching.                                                                                                                                                                                                                                                                                                |
| Designation                               | No protection known, except partial protection of sea turtle nests in summer.                                                                                                                                                                                                                                                                             |
| Cultural importance of the site           |                                                                                                                                                                                                                                                                                                                                                           |
| Active CSOs in the site region            | Green Footprint Organization, Benghazi.                                                                                                                                                                                                                                                                                                                   |

|                                              |                                                                                                                                                   |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Women role in the site                       | Grazing.                                                                                                                                          |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 37.93                                                                                                                                             |
| Proposed Marine Area (Km <sup>2</sup> )      | 88.69                                                                                                                                             |
| Habitat types                                |                                                                                                                                                   |
| SPA/BD protocol                              | Dunes, sandy beaches, rocky beaches, hard bottoms, sands.                                                                                         |
| Ramsar                                       | B -- Marine subtidal aquatic beds.<br>E -- Sand, shingle or pebble shores.<br>Ss -- Seasonal/intermittent saline/brackish/alkaline marshes/pools. |
| Criteria applicable                          |                                                                                                                                                   |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                  |
| SPAMI                                        | Site of Mediterranean importance for Loggerhead sea turtle nesting.                                                                               |
| ZNIEFF                                       | Natural heritage value.                                                                                                                           |
| Ramsar                                       | Criteria 2, 4, 6.                                                                                                                                 |
| Criteria for the Libyan coast                |                                                                                                                                                   |
| Priority 1                                   | Importance for threatened or endangered species and habitats: loggerhead sea turtles.                                                             |

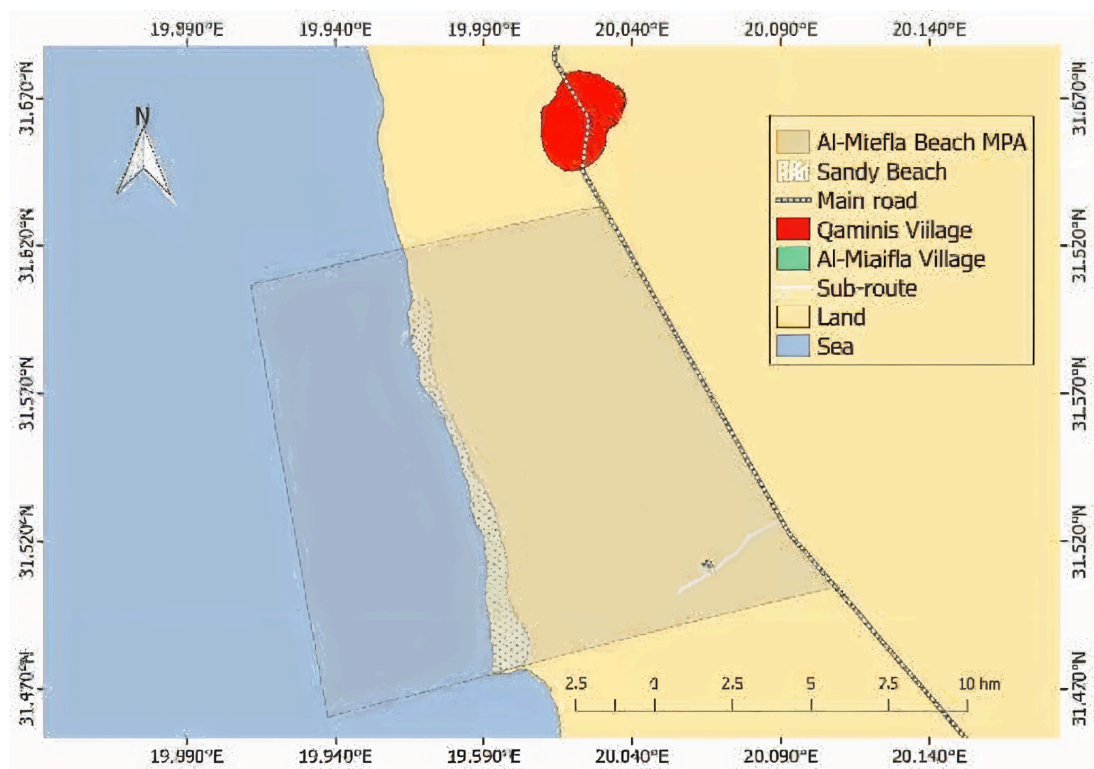


Figure 22 Proposed boundaries of Al-Mtefla Marine Protected Area



## 12 Sabkhat Jeliana- Benghazi

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Sabkhat Jeliana-Benghazi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Region (Municipality)                        | Benghazi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Location                                     | 32° 05' N – 20° 03' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Quality and importance                       | <p>The site, located on the western side of Benghazi Lake and covering 90 hectares, was used in the early 1900s for salt production. It receives water from a connection to the inner harbour (23 July Lake) and from sewage water effluents, which increase the water's productivity but pose environmental and health concerns.</p> <p>The site includes a small islet that hosts (during summer months) the third Mediterranean colony of lesser crested terns, <i>Thalasseus bengalensis</i>.</p> <p>The site is the most important waterbird site nationally, attracting birds all year around and hosting 30% of Libya's wintering waterbirds. During the winter census, the number of waterbirds reached 90 species in one day, including most SPA-listed bird species. Some are the black-headed gull, black-necked grebe, coot, cormorant, dunlin, flamingo, Kentish plover, little stint, pintail, pochard, ringed plover, shoveler, slender-billed gull, teal, whiskered tern. As well as a potential site of national importance for black-winged stilt, grey heron, Mediterranean gull, moorhen redshank, sanderling, sandwich tern, and wigeon.</p> |
| Future conservation actions (incl.OECMs)     | The adjacent port of Benghazi area can be considered as OECM, being important for seabird roosting.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Threats                                      | Solid waste dumping, sewage water pollution and development threatening the habitat quality of the site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Designation                                  | Declared as coastal Protected area under MOE decree 272/2021, but so far, no conservation measures are taken on the ground. A detailed management plan for the site is being prepared by a technical committee from Benghazi (in progress).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Cultural importance of the site              | Used by locals as a walking area, in addition to the site's importance for birdwatchers. In the past, this site was famous for salt production (see photo below) and its historic archaeological importance for Greek civilisation, as it is one of the sites where Lake Triton was named. Euesperides (Benghazi) was built on a mound overlooking ancient Lake Tritonis from the north and east early in the 6th Century BC. A small statue of Vinos is exhibited in the Pennsylvania Museum in the USA and originated from here. The site is also a site for golf sports for local clubs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Active CSOs in the site region:              | Green Footprint Organization, Benghazi.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Women role in the site                       | Urban open air sport hub for locals of both genders.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 1.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Proposed Marine Area (Km <sup>2</sup> )      | 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| SPA/BD protocol                              | Coastal wetland (salt marsh)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Ramsar                                       | Coastal/Marine F ("Estuarine waters, permanent estuaries and deltas"), partly Marine/Coastal E ("beaches of fine or coarse sand").                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



|                               |                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPAMI                         | <p>Site of Mediterranean importance for wintering waterbird species (incl. seabirds).</p> <ul style="list-style-type: none"> <li>Scientific, educational or aesthetic interest.</li> <li>The existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area.</li> </ul>             |
| ZNIEFF                        | Vulnerability, natural heritage value, aesthetic value.                                                                                                                                                                                                                                                                        |
| Ramsar                        | Criteria 2, 3, 4.                                                                                                                                                                                                                                                                                                              |
| Criteria for the Libyan coast |                                                                                                                                                                                                                                                                                                                                |
| Priority 1                    | <ul style="list-style-type: none"> <li>Vulnerability, fragility Importance for threatened or endangered species and habitats: lesser crested terns, great flamingos, and some other waterbirds.</li> <li>Existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area.</li> </ul> |

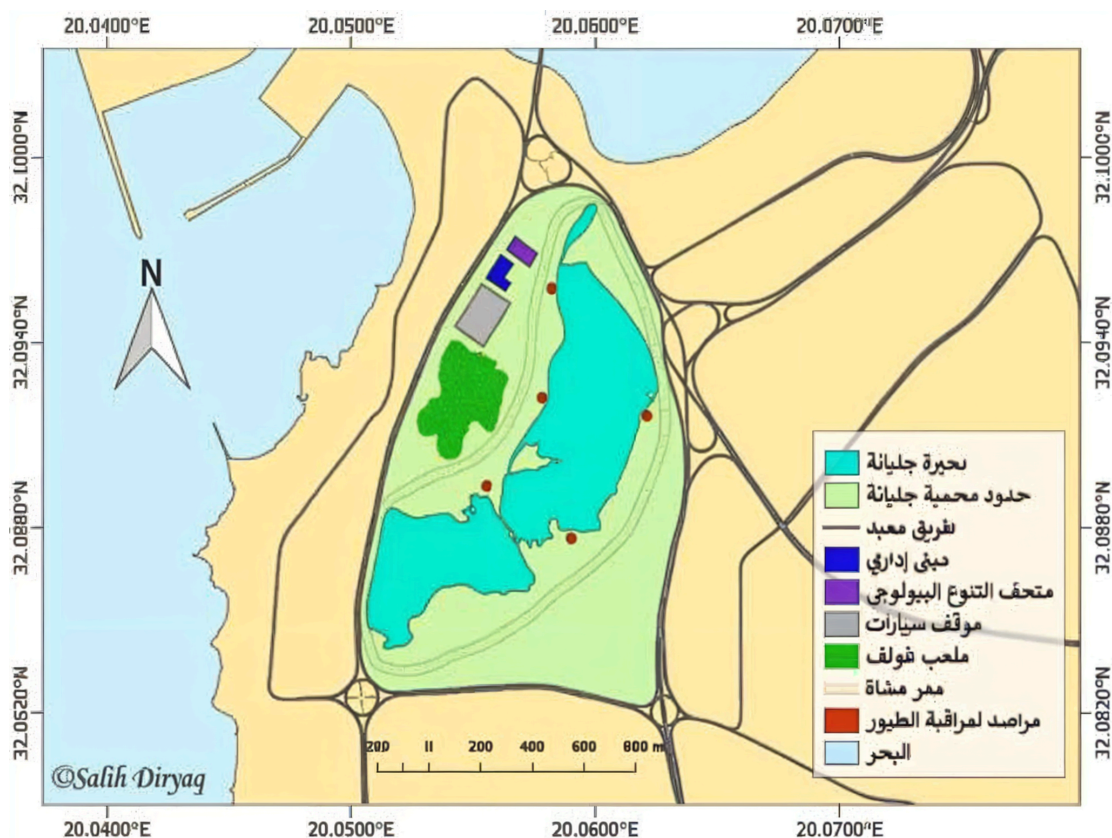


Figure 23 Proposed boundaries of Sabkhat Jeliana-Benghazi Protected Area



# 14 Ain Zayanah

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Ain Zayanah                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Region (Municipality)                        | Benghazi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Location                                     | 32° 12' N – 20° 09' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Quality and importance                       | <p>This typical coastal sabkha, bordering an oval-shaped cove, is fed by freshwater springs at the east end mixed with seawater entering from the west. The site covers about 500 hectares, with man-made banks partially in the southern part. The vegetation is dominated by <i>Arthrocnemum</i>, with some macrophytes (<i>Ruppia</i>) and a palm grove growing on the eastern side of the lagoon mouth.</p> <p>The adjacent sea coast is popular for summer tourism. This site is part of the Benghazi Important Bird Area (IBA), as a wintering site for waterbirds and a fish nursery site.</p> |
| Future conservation actions (incl. OECMs)    | Conservation status still favorable, but threatened by solid waste dumping on the sabkha side.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Threats                                      | The site's terrestrial part is used for dumping urban waste, which may affect the water quality of the lagoon due to run-off. In addition to invasive species such as <i>Yucatan Molly</i> , which reported recently from the lagoon, believed to be released from the aquarium                                                                                                                                                                                                                                                                                                                       |
| Designation                                  | Sport fishing, surfing and local swimming competitions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Cultural importance of the site              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Active CSOs in the site region               | Green Footprint Organization, Benghazi.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Women role in the site                       | Not relevant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 9.025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Proposed Marine Area (Km <sup>2</sup> )      | 8.027                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| SPA/BD protocol                              | Coastal wetlands (estuaries). Also, dunes, sandy beaches, rocky beaches.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Ramsar                                       | Coastal/Marine F ("Estuarine waters, permanent estuaries and deltas"), partly Marine/Coastal E ("beaches of fine or coarse sand").                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| SPAMI                                        | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| ZNIEFF                                       | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Ramsar                                       | Coastal/Marine F ("Estuarine waters, permanent estuaries and deltas"), partly Marine/Coastal E ("beaches of fine or coarse sand").                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Priority 1                                   | <ul style="list-style-type: none"> <li>• Special importance for life history stages of the species: fish nursery areas.</li> <li>• Importance for threatened or endangered species and habitats: birds.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                    |

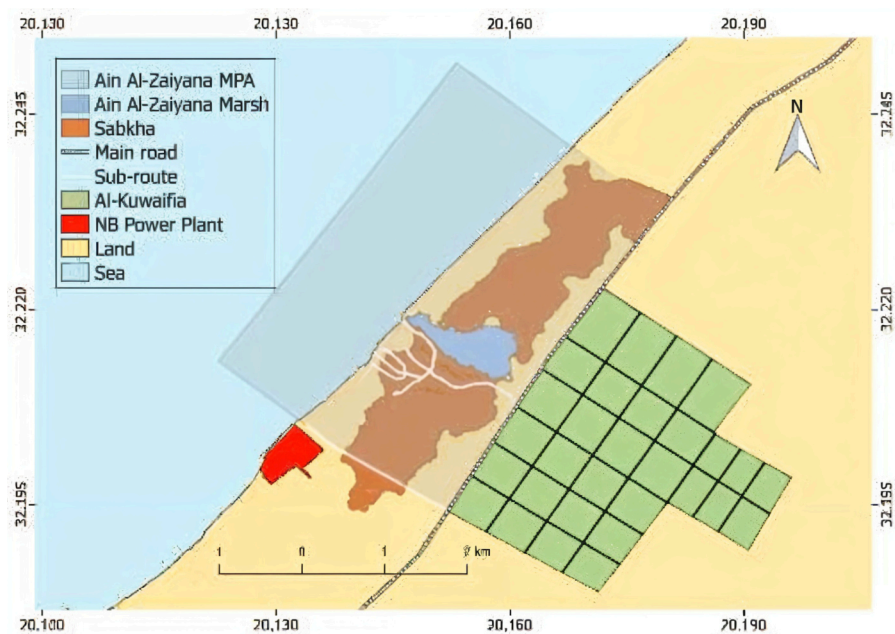


Figure 24 Proposed boundaries of Ain Zayanah Protected Area



Figure 25 A view of Ain Zayanah Bay





# 15 Sabkhat Alkuz

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Sabkhat Alkuz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Region (Municipality)                        | Benghazi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Location                                     | 32° 26' N – 20° 26' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Quality and importance                       | <p>This 15 km-long sabkha lies at the northwestern corner of the high karstic limestone of Cyrenaica, covered with vast forests of <i>Juniperus</i>. Surrounded by the typical vegetation of brackish Mediterranean wetlands, it is a representative site for brackish coastal temporary wetland habitats. It includes vast <i>Arthrocnemum</i> and <i>Juncus</i> beds and <i>Tamarix</i> bushes bordering temporary pools and sandy mudflats.</p> <p>Al Kuz is one of Libya's largest coastal lagoons and may have offered some of the best wintering habitats over Libya to the possibly extinct Slender-billed Curlew <i>Numenius tenuirostris</i>. The lagoon runs parallel to the seashore, between the towns of Daryanah and Tukrah, both founded in ancient Greek times not far from Berenice (present-day Benghazi). Other birds on the site include the greater flamingo, Kentish plover, slender-billed gull, common shelduck, yellow-legged gull, avocet, and common redshank.</p> |
| Future conservation actions (incl.OECMs)     | No data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Threats                                      | Solid waste dumping, sewage water pollution threatens parts of the site habitat quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Designation                                  | Declared as coastal Protected area under MOE decree 272/2021, but so far, no conservation measures are taken on the ground.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Cultural importance of the site              | No data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Active CSOs in the site region               | Green Footprint Organization, Benghazi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Women role in the site                       | Grazing, Livestock and Limited agriculture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 20.685                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Proposed Marine Area (Km <sup>2</sup> )      | 16.143                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| SPA/BD protocol                              | Coastal wetland (salt marsh).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Ramsar                                       | Coastal/Marine F ("Estuarine waters, permanent estuaries and deltas"), partly Marine/Coastal E ("beaches of fine or coarse sand").                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| SPAMI                                        | <p>Site of Mediterranean importance for wintering waterbird species (incl. seabirds).</p> <ul style="list-style-type: none"> <li>• Scientific, educational or aesthetic interest.</li> <li>• The existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|                               |                                                                                                                                                                                                                                                                                                     |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ZNIEFF                        | Vulnerability, natural heritage value, aesthetic value.                                                                                                                                                                                                                                             |
| Ramsar                        | Criteria 2, 3, 4.                                                                                                                                                                                                                                                                                   |
| Criteria for the Libyan coast |                                                                                                                                                                                                                                                                                                     |
| Priority 1                    | <ul style="list-style-type: none"> <li>Importance for threatened or endangered species and habitats: lesser crested tern, great flamingo, and some other waterbirds.</li> <li>Existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area.</li> </ul> |

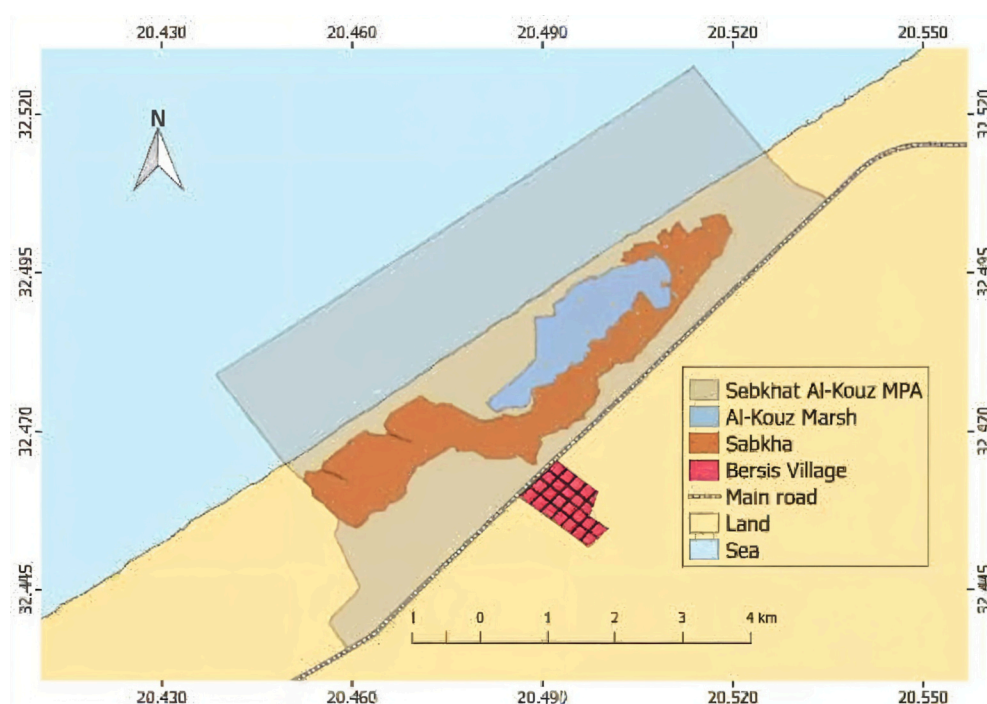


Figure 26 Proposed boundaries of Sabkhat Alkuz Protected Area



Figure 27 A view of Sabkhat Alkuz showing a flooded salt marsh ecosystem.



## 16 Tolmitah-Ugla rocky coast

|                       |                                                     |
|-----------------------|-----------------------------------------------------|
| Site name             | Tolmitah-Ugla rocky coast                           |
| Region (Municipality) | Al Marj                                             |
| Location              | From 32° 42' N – 20° 56' E to 32° 46' N – 21° 19' E |



|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quality and importance                       | <p>This medium to high elevated limestone rocky coast, in direct contact to woodland of Jabal Al Akhdar, intersects with numerous wadis cutting through high cliffs. The site extends for more than 80 km along the coast, small bays with sandy beaches and a high density of turtle nests each year. The site is famous for the sightings of monk seals, as several underwater or coastal marine caves were identified as suitable habitats for the species.</p> <p>The site also has a historic-archaeological importance as the Greek city of Tolmitah is located on its western border, with several wrecks, underwater scenery and artifacts.</p> |
| Future conservation actions (incl. OECMs)    | In near-natural conditions, with limited human disturbance, except the practice of blast fishing from the beach.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Threats                                      | <p>The following major threats are identified:</p> <ul style="list-style-type: none"> <li>• Blast fishing (spread at sea and from high cliffs on the coastline).</li> <li>• The construction of a new road between Tolmitah and Qasr Libya that will provide vehicle access to this inaccessible part of the coastline, threatening its natural formations and closing wadi mouths. The road works have been suspended currently.</li> <li>• Unregulated bird hunting.</li> <li>• Development of tourist facilities and urban construction.</li> </ul>                                                                                                  |
| Designation                                  | The eastern end (near Ugla) is the northwestern border of the Kouf National Park. The remaining area is not designated. Recently declared as PA (MOE decree 272/2021)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Cultural importance of the site              | Historic archeological sites on land and underwater.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Active CSOs in the site region               | NAWRAS Association for Wildlife                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Women role in the site                       | Agriculture, wooding, and Grazing activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 324.580                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Proposed Marine Area (Km <sup>2</sup> )      | 206.895                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| SPA/BD protocol:                             | Dunes, sandy beaches, rocky beaches, hard bottoms, sands, marine vegetation beds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Ramsar:                                      | <p>B -- Marine subtidal aquatic beds.</p> <p>E -- Sand, shingle or pebble shores.</p> <p>Ss -- Seasonal/intermittent saline/brackish/alkaline marshes/pools.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| SPAMI                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| ZNIEFF                                       | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Priority 1                                   | Importance for threatened or endangered species and habitats: loggerhead sea turtles and monk seal (needs further investigation).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

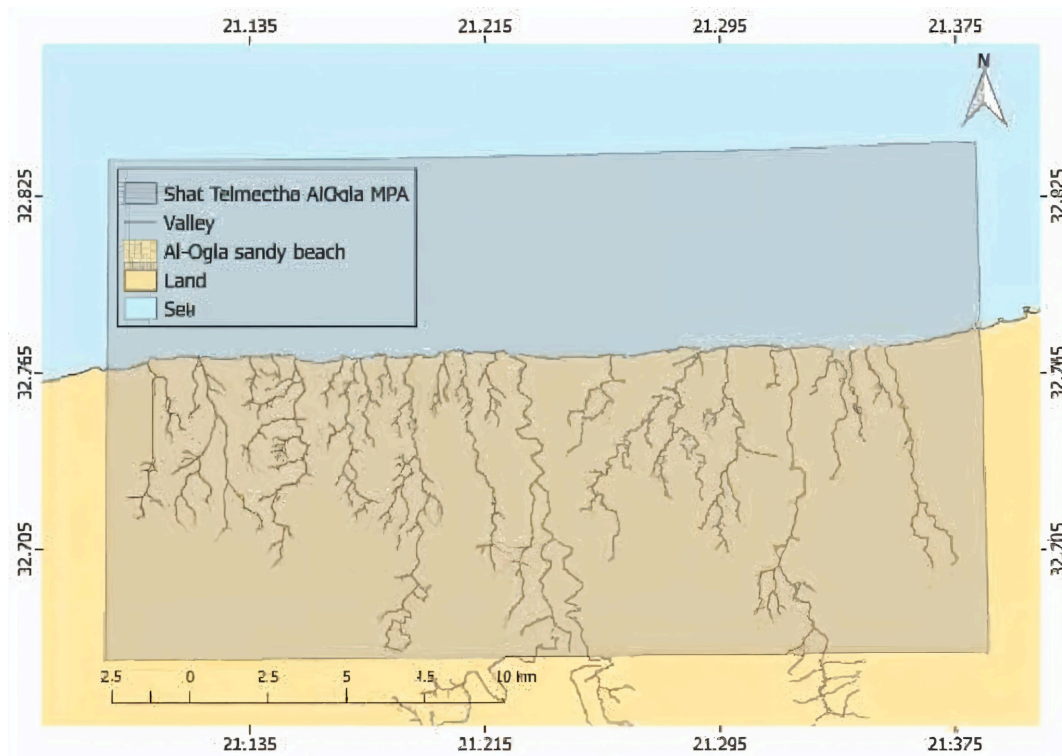


Figure 28 Proposed boundaries of Tolmitah-Ugla Protected Area.



Figure 29 A View of Tolmitah-Ugla coast, showing Ugla rocky islets.



# 17 Kouf Beaches

|                                              |                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Kouf Beaches                                                                                                                                                                                                                                                                                                                                                                                  |
| Region (Municipality)                        | Al Jabal Al Akhdar                                                                                                                                                                                                                                                                                                                                                                            |
| Location                                     | 32° 47' N – 21° 23' E                                                                                                                                                                                                                                                                                                                                                                         |
| Quality and importance                       | <p>The limestone formations of the Green Mountain meet up with a succession of small bays (from 600 m to 4 km wide) including short sandy beaches.</p> <p>The beaches (Bananes) are important marine turtle nesting sites and monk seal have been sighted in the area. Inland, the Green Mountain hills and woodland offers high biodiversity with typical Mediterranean fauna and flora.</p> |
| Future conservation actions (incl. OECMs)    | Not protected, and some illegal buildings established on the seaside, threatening natural beach and marine habitats                                                                                                                                                                                                                                                                           |
| Threats                                      | <ul style="list-style-type: none"> <li>• Sand mining</li> <li>• Turtle egg poaching</li> <li>• Unregulated bird hunting</li> <li>• Development of tourist facilities and urban construction</li> </ul>                                                                                                                                                                                        |
| Designation                                  | Under the borders of Kouf National Park Recently declared as PA (MOE decree 272/2021).                                                                                                                                                                                                                                                                                                        |
| Cultural importance of the site              | Historic archeological sites on land and underwater.                                                                                                                                                                                                                                                                                                                                          |
| Active CSOs in the site region               | <ul style="list-style-type: none"> <li>• NAWRAS Association for Wildlife</li> <li>• Marine Biology In Libya</li> </ul>                                                                                                                                                                                                                                                                        |
| Women role in the site                       | Agriculture and Grazing activity                                                                                                                                                                                                                                                                                                                                                              |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 1.918                                                                                                                                                                                                                                                                                                                                                                                         |
| Proposed Marine Area (Km <sup>2</sup> )      | 2.634                                                                                                                                                                                                                                                                                                                                                                                         |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                               |
| SPA/BD protocol                              | Dunes, sandy beaches, rocky beaches, hard bottoms, sands, marine vegetation beds.                                                                                                                                                                                                                                                                                                             |
| Ramsar                                       | <p>B -- Marine subtidal aquatic beds.</p> <p>E -- Sand, shingle or pebble shores.</p> <p>Ss -- Seasonal/intermittent saline/brackish/alkaline marshes/pools.</p>                                                                                                                                                                                                                              |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                               |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                                                                              |
| SPAMI                                        | <ul style="list-style-type: none"> <li>• Site of Mediterranean importance for sea turtle species.</li> <li>• Site of Mediterranean importance for seagrass communities.</li> <li>• Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.</li> </ul>                                                                |



|                               |                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ZNIEFF                        | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                                                                                                                                                 |
| Ramsar                        | Criteria 2, 4, 6.                                                                                                                                                                                                                                                                                                                                                        |
| Criteria for the Libyan coast |                                                                                                                                                                                                                                                                                                                                                                          |
| Priority 1                    | <ul style="list-style-type: none"> <li>Importance for threatened or endangered species and habitats: loggerhead sea turtles.</li> <li>Historically site with monk seal presence.</li> <li>Existence of threats likely to impair the ecological, biological, aesthetic value of the area: illegal hunting and trapping; blast fishing; sea turtle egg poaching</li> </ul> |

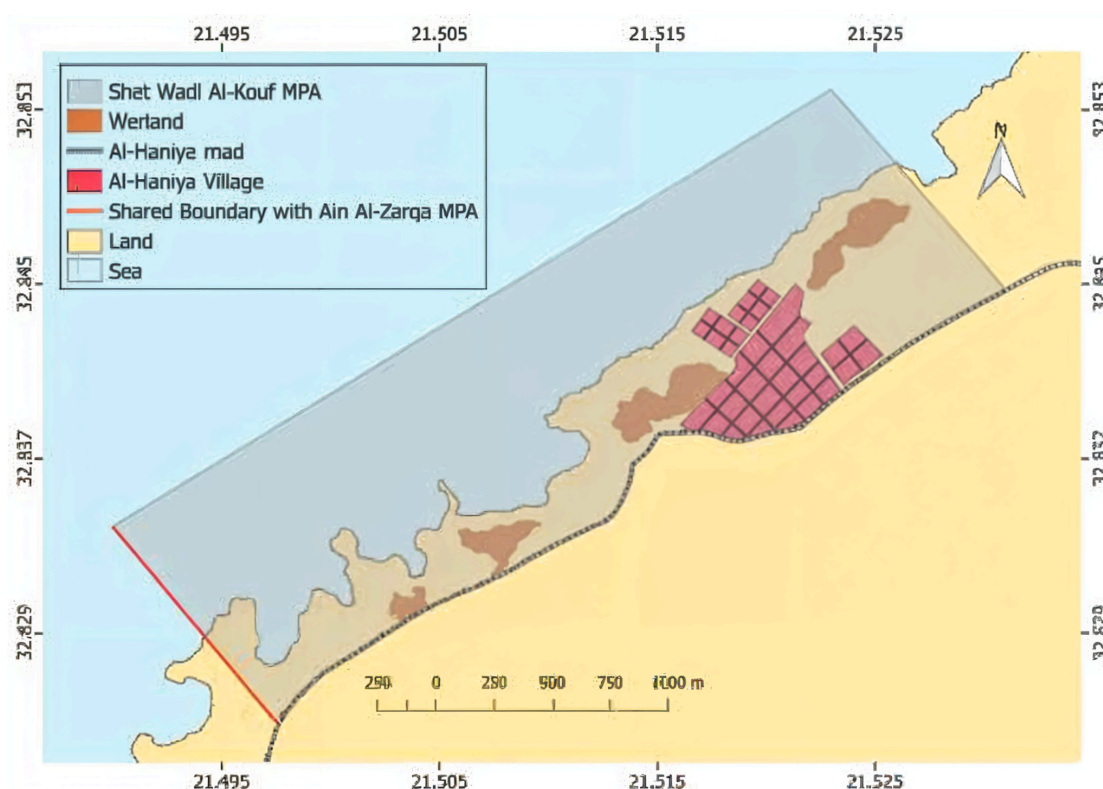


Figure 30 Proposed boundaries of Kouf Beaches Marine Protected Area.



*Figure 31 A View of Kouf Beaches Marine Protected Area*



*Figure 32 Illegal development on Kouf Beaches*



## 18 Sabkhat Ain Azzarga (Elzarga)

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Sabkhat Ain Azzarga (Elzarga)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Region (Municipality)                        | Al Jabal Al Akhdar, Kouf                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Location                                     | 32° 48' N – 21° 27' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Quality and importance                       | This coastal lagoon is located within the borders of Kouf National Park. Covering a few hundred hectares, it is fed partly by seawater incursions through channels, partly by springs probably of karstic origin. Situated in the coastal plain below the limestone plateau of the Jabal Akhdar, this lagoon is unusual as it is surrounded by limestone formations rather than dunes. It retains humidity all year round, but salinity increases in summer. The lake is flooded with seawater during the winter due to winds and high waves, thus covering a vast distance with seawater. This area provides an environment with distinctive habitats suitable for the life of many organisms. Vegetation on the inland side includes an extensive fringe of Tamarix with more freshwater-loving plants such as Juncus, phragmites, and ruppia. Fauna includes waterbirds (Kentish plover 78, ringed plover 12, little stint 19, curlew sandpiper 1, dunlin 229, sanderling 3, turnstone 1, little stint, kingfisher 1, grey heron 34 (Date 27.08.2022)), amphibians, fishes (Mugil) and gastropods. |
| Conservation Status                          | In a good status during our visit in September 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Future conservation actions (incl.OECMs)     | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Threats                                      | Wildlife hunting and private ownership claims, development. unregulated visits with picnic waste.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Designation                                  | Part of El Kouf National Park, not currently managed. The site is designated as a Ramsar site. Recently declared as PA (MOE decree 272/2021)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Cultural importance of the site              | Educational and field site used by local schools and universities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Active CSOs in the site region               | <ul style="list-style-type: none"> <li>• NAWRAS Association for Wildlife</li> <li>• Marine Biology in Libya</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Women role in the site                       | Grazing and agriculture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 2.607                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Proposed Marine Area (Km <sup>2</sup> )      | 3.117                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| SPA/BD protocol                              | Coastal wetlands (estuaries); also, dunes, sandy beaches, rocky beaches, salt marshes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Ramsar                                       | R -- Seasonal/intermittent saline/brackish/alkaline lakes and flats.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



| Criteria applicable           |                                                                                                                                                                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CBD                           | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                           |
| ZNIEFF                        | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                   |
| Ramsar                        | Criteria 2, 4.                                                                                                                                                                                                                             |
| Criteria for the Libyan coast |                                                                                                                                                                                                                                            |
| Priority 1                    | <ul style="list-style-type: none"> <li>• Special importance for life history stages of the species: fish nursery areas.</li> <li>• Importance for threatened or endangered species and habitats: birds.</li> <li>• Naturalness.</li> </ul> |

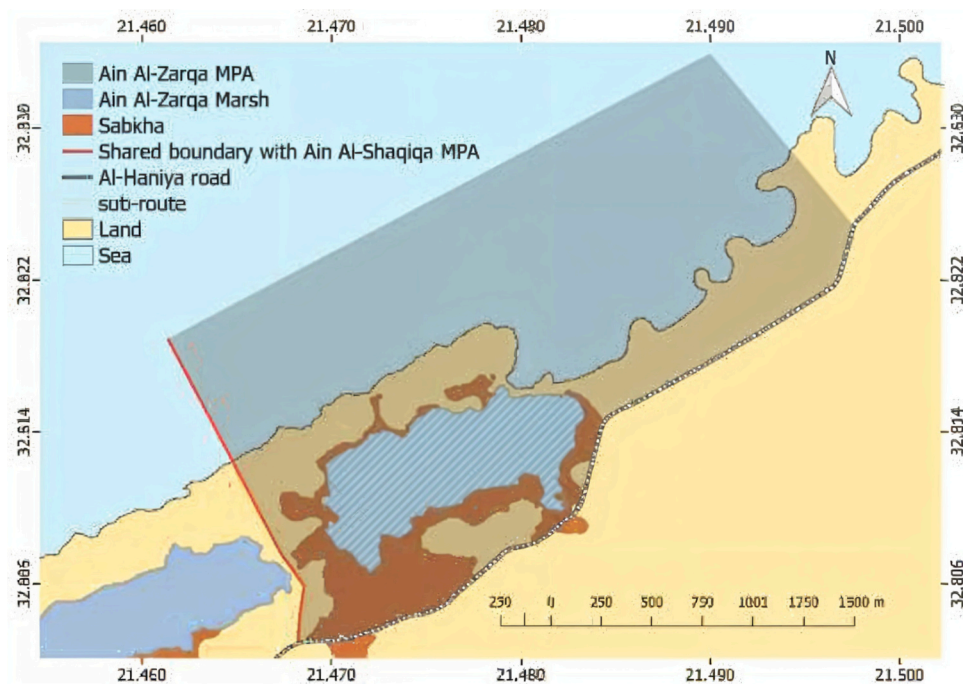


Figure 33 Proposed boundaries of Sabkhat Ain Azzarga Marine Protected Area.



Figure 34 A View of Sabkhat Ain Azzarga Marine Protected Area



## 10 Sabkhat Ain Shakika (Ain Eshgaiga)

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name              | Sabkhat Ain Shakika (Ain Eshgaiga)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Region (Municipality)  | Al Jabal Al Akhdar, Kouf                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Location               | 32° 49' N – 21° 29' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Quality and importance | This coastal lagoon, near Ain Zarga, was considered part of the National Park of El Kouf. It is a permanent large lagoon with shallow waters, fed by seawater incursions and freshwater springs from Al Jabal Akhdar. It is surrounded by dunes and limestone formations and covered by well-preserved typical vegetation. The vegetation on the inland side includes extensive Tamarix wood growing on flooded soil and relatively large Juncus groves. Bird species reported here are cattle egret, grey heron, and some birds of prey. Amphibians, fish, and gastropods are also present. |

|                                              |                                                                                                                                                                                                                                                                                 |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conservation Status                          | This is a Ramsar site, in near-natural condition. Only disturbances are overgrazing, and limited agriculture, but some locals claim land ownership.                                                                                                                             |
| Future conservation actions (incl.OECMs)     | N/A                                                                                                                                                                                                                                                                             |
| Threats                                      | Wildlife hunting and private ownership claims, development. unregulated visits with picnic waste.                                                                                                                                                                               |
| Designation                                  | Although the site is protected as Ramsar site, enforcement of protection should be applied in future. The site can be a MAB site as another way of management, given the human activities and limited agriculture conducted here. Recently declared as PA (MOE decree 272/2021) |
| Cultural importance of the site              | Educational and field site used by local schools and universities.                                                                                                                                                                                                              |
| Active CSOs in the site region               | <ul style="list-style-type: none"> <li>• NAWRAS Association for Wildlife</li> <li>• Marine Biology in Libya</li> </ul>                                                                                                                                                          |
| Women role in the site                       | Grazing and agriculture                                                                                                                                                                                                                                                         |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 2.673                                                                                                                                                                                                                                                                           |
| Proposed Marine Area (Km <sup>2</sup> )      | 2.268                                                                                                                                                                                                                                                                           |
| Habitat types                                |                                                                                                                                                                                                                                                                                 |
| SPA/BD protocol                              | Coastal wetlands (estuaries); also, dunes, sandy beaches, rocky beaches, salt marshes.                                                                                                                                                                                          |
| Ramsar                                       | R -- Seasonal/intermittent saline/brackish/alkaline lakes and flats.                                                                                                                                                                                                            |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                 |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                |
| ZNIEFF                                       | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                                                        |
| Ramsar                                       | Criteria 2, 4.                                                                                                                                                                                                                                                                  |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                                                 |
| Priority 1                                   | <ul style="list-style-type: none"> <li>• Special importance for life history stages of the species: fish nursery areas.</li> <li>• Importance for threatened or endangered species and habitats: birds.</li> <li>• Naturalness.</li> </ul>                                      |



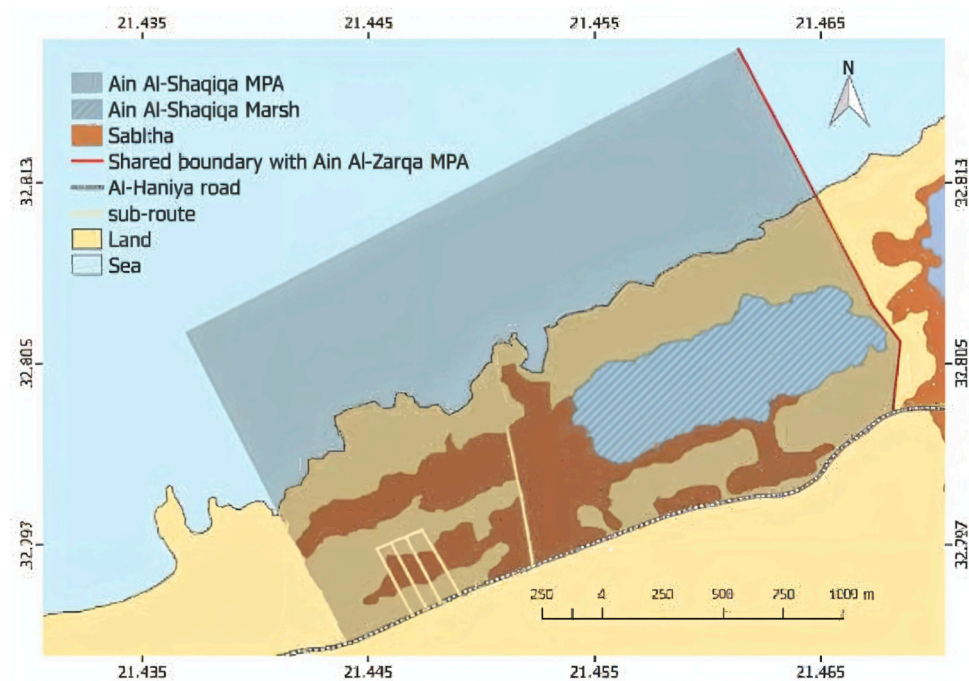


Figure 35 Proposed boundaries of Sabkhat Ain Shakika Marine Protected Area.



Figure 36 A View of Sabkhat Ain Shakika Marine Protected Area





*Figure 37 Local cattle grazing at Sabkhat Ain Shakika*



*Figure 38 Houses built with the vicinity of Sabkhat Ain Shakika*



## Wadi Khalij (Al-Khabta)

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Wadi Khalij (Al-Khabta)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Region (Municipality)                        | Derna                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Location                                     | 32° 39' N – 22° 54' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Quality and importance                       | <p>Steep hills surround this wadi, developing in an estuarine lagoon about one kilometre from the sandbar barrier at the wadi mouth. Water is brackish and shallow (1-2 m) and contains mullets and eels. The Beach is sandy (233 m), can host some loggerhead turtle nests, used by locals for bathing and picnics in summer, and a small part is used as a seasonal landing site for local anglers. A fringe band of reeds and bushes provides essential habitat and shelter for many local birds and seasonal migrants.</p> <p>Some species under the SPA protocol annexe include The slender-billed gull <i>Chroicocephalus genei</i>, and Kentish plover <i>Charadrius alexandrinus</i>.</p> |
| Conservation Status                          | The area is subject to important human activity, but is still in good condition. Public use should be regulated and there is a need for solid waste management. Also of concern: the importance of sand extraction in the area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Future conservation actions (incl. OECMs)    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Threats                                      | Massive illegal sand mining, urban solid waste, bird hunting, blast fishing on the sea side.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Designation                                  | The site has a special mixture of freshwater and marine habitats, making it an ideal coastal site for MPA with freshwater ecosystems that can qualify for Ramsar site as well. The site is declared as an MPA (MOE decree 272/2021).                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Cultural importance of the site              | Falconry is common culture in the area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Active CSOs in the site region               | <ul style="list-style-type: none"> <li>Alhayat Organization for Protection of Wildlife and Marine Organisms- Derna.</li> <li>NAWRAS Association for Wildlife</li> <li>Marine Biology In Libya</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Women role in the site                       | No Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 96.418                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Proposed Marine Area (Km <sup>2</sup> )      | 5.142                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| SPA/BD protocol                              | Coastal wetlands (estuaries); also, dunes, sandy beaches, rocky beaches, salt marshes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Ramsar                                       | <p>Coastal/Marine F (Estuarine waters, permanent estuaries and deltas), partly Marine/Coastal E (beaches of fine or coarse sand).</p> <p>M -- Permanent rivers/streams/creeks.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |



|                               |                                                                                                                                                                                                                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CBD                           | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                 |
| ZNIEFF                        | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                                                         |
| Ramsar                        | Criteria 3, 7.                                                                                                                                                                                                                                                                   |
| Criteria for the Libyan coast |                                                                                                                                                                                                                                                                                  |
| Priority 1                    | <ul style="list-style-type: none"> <li>• Special importance for life history stages of the species: fish nursery areas.</li> <li>• Naturalness.</li> <li>• Existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area.</li> </ul> |

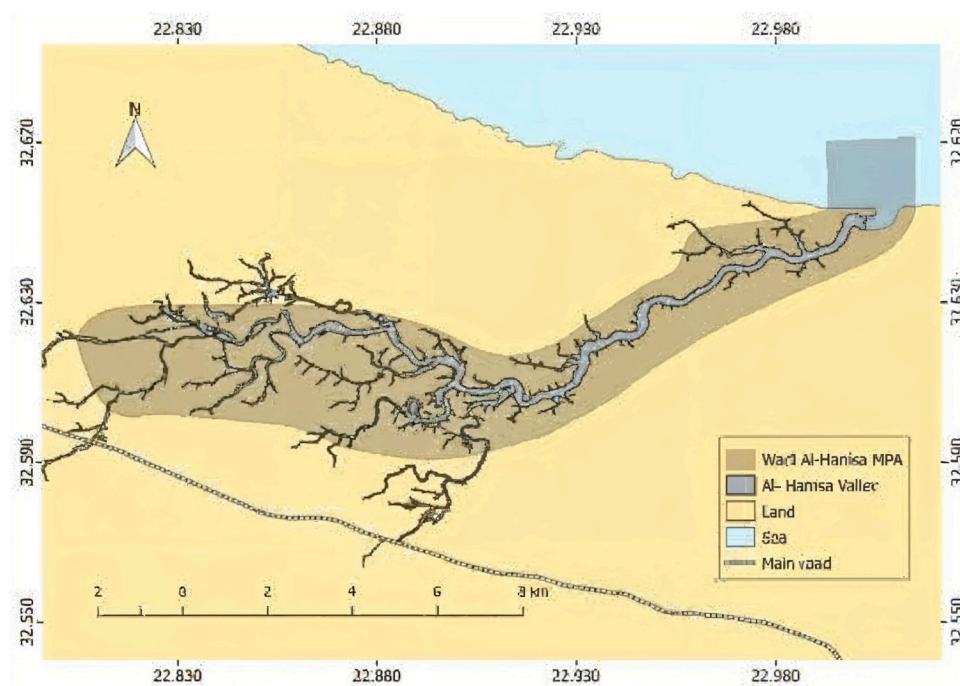


Figure 39 Proposed boundaries of Wadi Khalij (Al-Khabta) Marine Protected Area.



Figure 40 A view of Wadi Khalij (Al-Khabta) estuary area.



## 21 Wadi Hamassah

|                       |                       |
|-----------------------|-----------------------|
| Site name             | Wadi Hamassah         |
| Region (Municipality) | Derna                 |
| Location              | 32° 39' N – 23° 00' E |

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quality and importance                       | <p>This lagoon at the valley mouth extends a long way inland. The upstream area of the valley is 4m above sea level, with an overall average depth of 2 m. The complex of water and vegetation creates a scenic landscape and offers a crucial wetland habitat that provides food and shelter for local and migratory birds.</p> <p>Fish fauna include <i>Affanius faciatus</i> (a native Killifish species) and <i>Oreochromis niloticus</i> in freshwater streams and <i>Mugilcephalis sp.</i>, <i>Lithognathus mormyrus</i>, and <i>Atherina sp.</i> in the marine area. Avian diversity includes the common sandpiper, ringed plover, cormorants, grey heron, little egret, marsh harrier, and several gull species.</p> <p>The edges of the wadi mouth provide shelter from northerly and easterly waves and wind. Artisanal fishers use the wadi mouth in all seasons as a haven and craft servicing point. Local sheep herds use the wadi as a shelter in summer, and some tourist activities take place on the beaches.</p> |
| Conservation Status                          | The site is still with favorable conservation status, regardless of the human uses in camping, hunting and limited fishing activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Future conservation actions (incl. OECMs)    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Threats                                      | Bird hunting/trapping, unregulated local tourism, Illegal fishing gears (blast fishing, small mesh-size nets), Foreign illegal fishing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Designation                                  | The site has a special mixture of freshwater and marine habitats, making it ideal coastal site for MPA with freshwater ecosystems, that can qualify for Ramsar site as well. The site is declared as an MPA (MOE decree 272/2021).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Cultural importance of the site              | Falconry is common culture in the area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Active CSOs in the site region               | <ul style="list-style-type: none"> <li>Alhayat Organization for Protection of Wildlife and Marine Organisms- Derna.</li> <li>NAWRAS Association for Wildlife</li> <li>Marine Biology In Libya</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Women role in the site                       | No Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 53.912                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Proposed Marine Area (Km <sup>2</sup> )      | 4.258                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| SPA/BD protocol                              | Coastal wetlands (estuaries), dunes, sandy beaches, rocky beaches.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Ramsar                                       | <p>Coastal/Marine F (Estuarine waters, permanent estuaries and deltas), partly Marine/ Coastal E (beaches of fine or coarse sand).</p> <p>M – Permanent rivers/streams/creeks.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Criteria applicable                          | <p>Coastal/Marine F (Estuarine waters, permanent estuaries and deltas), partly Marine/ Coastal E (beaches of fine or coarse sand).</p> <p>M – Permanent rivers/streams/creeks.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| ZNIEFF                                       | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Ramsar                                       | Criteria 3, 7.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Priority 1                                   | <ul style="list-style-type: none"> <li>Special importance for life history stages of the species: fish nursery areas.</li> <li>Naturalness.</li> <li>Existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



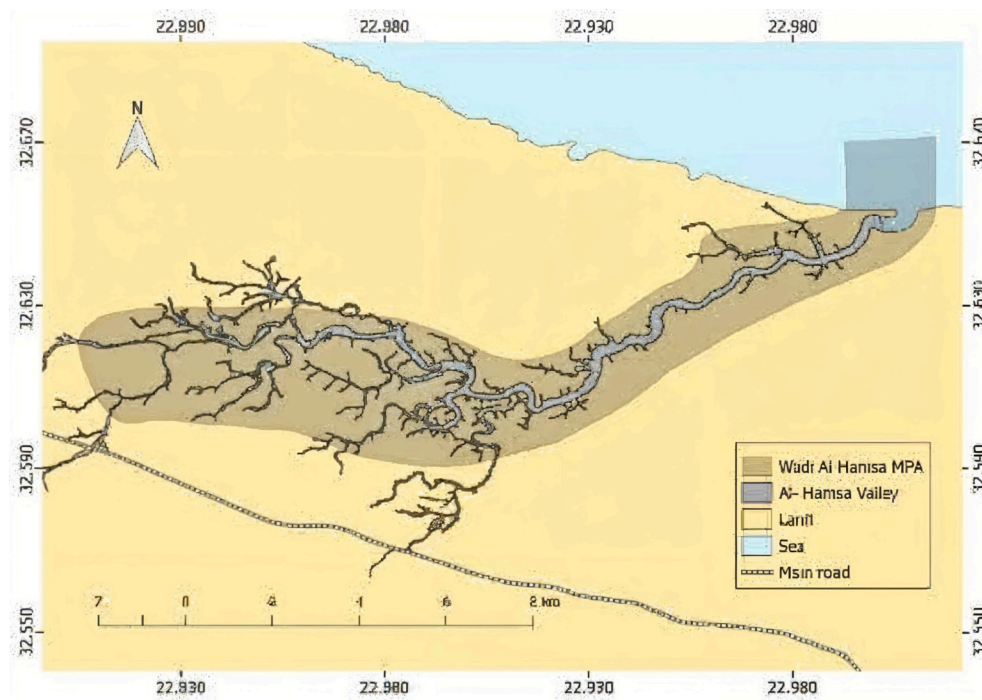


Figure 41 Proposed boundaries of Wadi Hamassah Marine Protected Area.



Figure 42 A view of Wadi Hamassah estuary area.





Figure 43 A view of Wadi Hamassah coastal area



## 22 Gulf of Bumbah and its islets

|                       |                               |
|-----------------------|-------------------------------|
| Site name             | Gulf of Bumbah and its islets |
| Region (Municipality) | Derna                         |
| Location              | 32° 20' N – 23° 09' E         |

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quality and importance                       | <p>This marine area with shallow waters is rich in marine vegetation (<i>Cymodocea</i> and micro-atolls and meadows of <i>Posidonia</i>), with freshwater input from Ain Tememi and other wadis. Three small islands are present within the Gulf: Fteha, Misrata, and Bardaa. Bardaa (Joka) is located 13 kilometres east of the coast of Bamba and is one of the Gulf's most important and largest islands. The island of Misurata also stands out as the closest island to the mainland in Bamba. It is important for the breeding of Mediterranean shag <i>Gulosus aristotelis desmarestii</i>, and the smallest is an area estimated at 1,800 square meters. Its height does not exceed two meters above sea level, and in the middle of the two islands is a small island called Fteha Island, a rectangular island in shape with a salt marsh that occupies most of the island area. The last is Elba Island, located at the mouth of Ain Al Ghazala. It is (with Fteha islet) important for lesser crested tern breeding (SPA species) and for feeding habitat for the monk seals. All islands are uninhabited and in good natural condition.</p> <p>The Gulf of Bumba is important as a feeding and wintering ground for loggerhead and green turtles, a nesting site for loggerhead turtles, and a potential feeding area for monk seals (sightings). In addition, it is a good fish nursery site and passage route for migratory water birds and birds of prey (falcons). A small artisanal fishing community is in Temimi (boat numbers 20-30).</p> |
| Conservation Status                          | In natural condition, except for some sewage interaction with Ain Temimi, this leads to the Gulf of Bumbah on the southern side.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Future conservation actions (incl. OECMs)    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Threats                                      | Migratory bird hunting (poaching), fishing in shallow waters, blast fishing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Designation                                  | The site is declared as an MPA (MOE decree 272/2021).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Cultural importance of the site              | The area is known for its traditions for artisanal fisheries and falconry culture.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Active CSOs in the site region:              | <ul style="list-style-type: none"> <li>• Alhayat Organization for Protection of Wildlife and Marine Organisms- Derna.</li> <li>• NAWRAS Association for Wildlife</li> <li>• Marine Biology In Libya</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Women role in the site                       | No Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 189.406                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Proposed Marine Area (Km <sup>2</sup> )      | 357.300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| SPA/BD protocol                              | Marine vegetation beds, soft bottoms, sandy beaches.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Ramsar                                       | <p>A -- Permanent shallow marine waters in most cases less than six meters deep at low tide. B -- Marine subtidal aquatic beds.</p> <p>D -- Rocky marine shores, on Bardas Island and Elba Island.</p> <p>E -- Sand, shingle or pebble shores.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| SPAMI                                        | <p>Site of Mediterranean importance for MAP seabird species.</p> <p>Site of Mediterranean importance for seagrass communities.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| ZNIEFF                                       | Aesthetic value, natural heritage value, economic value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Ramsar                                       | Criteria 2,4,6.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Priority 1                                   | <p>Special importance for life history stages of the species: seabird colony site (lesser crested tern, Mediterranean shag), <i>Posidonia</i>. Feeding, wintering and nesting of sea turtles (see above). Importance for threatened or endangered species and habitats: seabirds, monk seal, <i>Posidonia</i> special structure (macroatolls).</p> <p>Naturalness</p> <p>Vulnerability, fragility, sensitivity: large group visits, oil spills, and physical habitat properties: consequent degradation</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



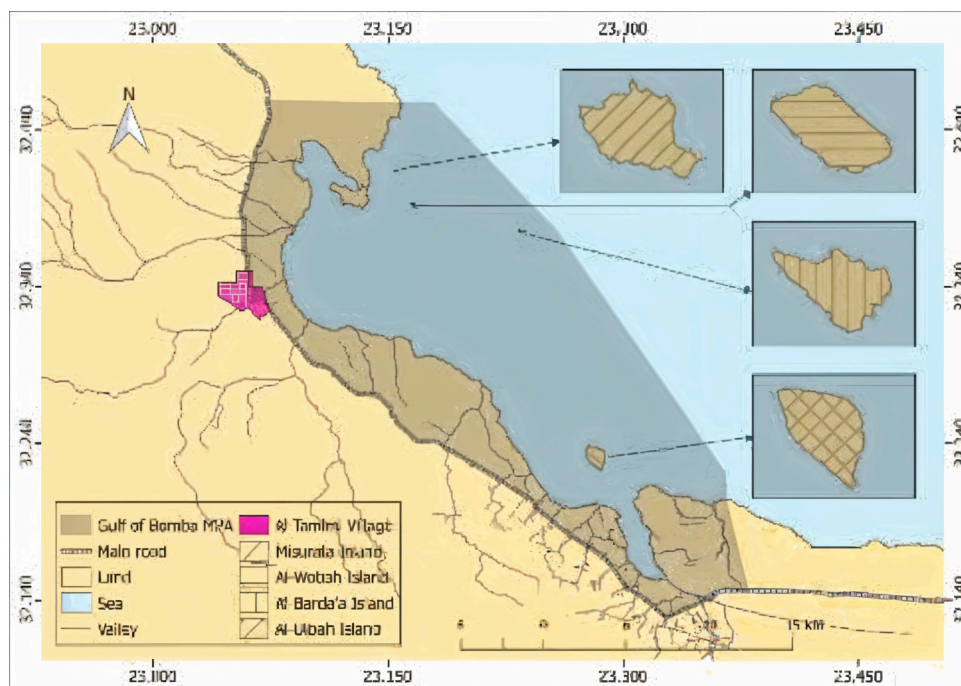


Figure 44 Proposed boundaries of Gulf of Bombah and its islets Marine Protected Area.



Figure 45 Bardaa island aerial view. Note the *Posidonia oceanica* meadows in macroatoll shape.



Figure 46 A marine cave at Bardaa island.



Figure 47 Gulf of Bumbah aerial photo, notice shallow water and small islands.





## 23 Abulfraes Beach

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Abulfraes Beach                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Region (Municipality)                        | Gulf of Bumba, Derna                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Location                                     | 32° 16' N – 23° 13' E                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Quality and importance                       | This 1.4 Km sandy beach features a high loggerhead sea turtle nesting density. It is located at 20 km south of Al-Temimi village. The beach is surrounded from the west by a 6 square km salt marsh, which is important for waders, migratory waterbirds, and birds of prey. This salt marsh is fed by freshwater from the nearby Wadi Temimi during winter. The site is worth further monitoring and is considered part of the Gulf of Bumbah's important bird area. |
| Conservation Status                          | Intensive sand extraction has impaired the long-known natural condition of the site, and currently the site is recovering pending further sand extraction.                                                                                                                                                                                                                                                                                                            |
| Future conservation actions (incl. OECMs)    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Threats                                      | Sand extraction, turtle nest poaching.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Designation                                  | Part of Gulf of Bumbah important bird area.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Cultural importance of the site              | Falconry and artisanal fisheries are the main cultural activities in the area.                                                                                                                                                                                                                                                                                                                                                                                        |
| Active CSOs in the site region:              | • Alhayat Organization for Protection of Wildlife and Marine Organisms                                                                                                                                                                                                                                                                                                                                                                                                |
| Women role in the site                       | No Data                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 5.38                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Proposed Marine Area (Km <sup>2</sup> )      | 5.31                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| SPA/BD protocol                              | Dunes, sandy beaches, rocky beaches, hard bottoms, sands, marine vegetation beds.                                                                                                                                                                                                                                                                                                                                                                                     |
| Ramsar                                       | B -- Marine subtidal aquatic beds.<br>E -- Sand, shingle or pebble shores.<br>Ss -- Seasonal/intermittent saline/brackish/alkaline marshes/pools.                                                                                                                                                                                                                                                                                                                     |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery                                                                                                                                                                                                                                                                                                                                       |
| Ramsar                                       | Criteria 2,4,6.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Priority 1                                   | Importance for threatened or endangered species and habitats: nesting and wintering of loggerhead sea turtles.                                                                                                                                                                                                                                                                                                                                                        |



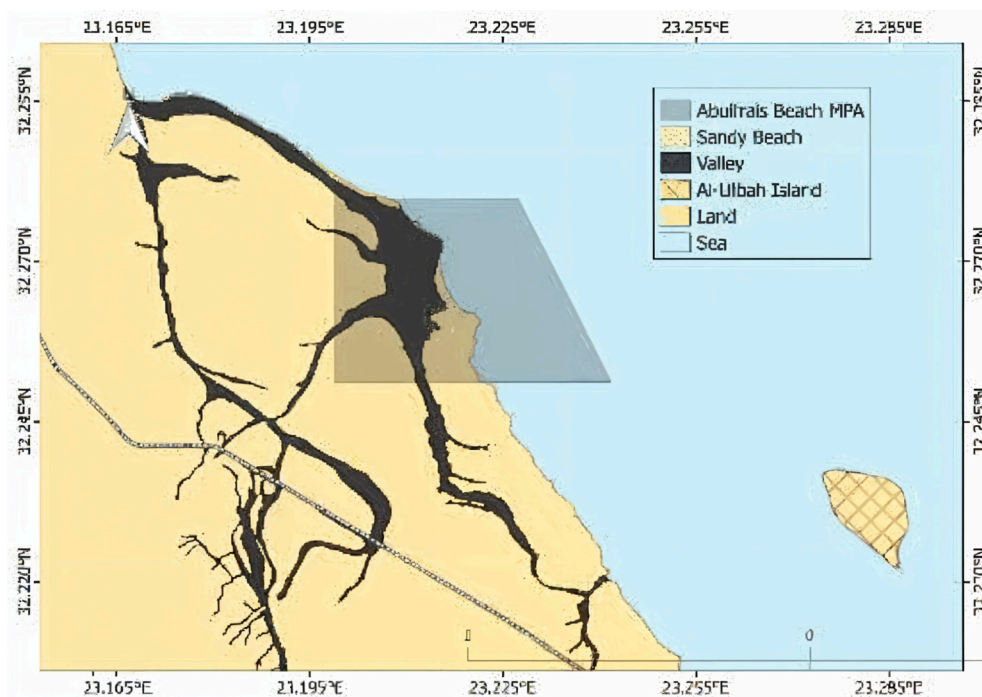


Figure 48 Proposed boundaries Abulfraes Beach (included in Gulf of Bumbah MPA).



Figure 49 A view of Abulfraes Beach



## 24 Beaches north of Ain Al Ghazalah

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Beaches north of Ain Al Ghazalah                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Region (Municipality)                        | Al Butnan, Tobruk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Location                                     | From 32° 12' N – 23° 20' E to 32° 12' N – 23° 21' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Quality and importance                       | <p>One of three pilot sites for Child Project 3.1, this site was declared a protected area in 2009, however management body is still not active. The quality of this site as a marine cove with shallow waters contains several species of algae, and seagrass (<i>Posidonia</i> and <i>Cymodocea</i>). The northern coast of Ain Alghazala is short sandy and sandy/pebble beaches, generally about 1 km long each, intersected by a rocky low to medium elevated coast. The area is well-conserved thanks to limited human access, however recently, it became a popular camping site for bird hunters in late summer.</p> <p>It is an essential site for sea turtle nesting, with high natural predation by foxes. The marine waters are shallow, with important seagrass meadows and diverse fish communities. The area to the back of the beach is a salt marsh with rocky formations.</p> |
| Conservation Status                          | In near-natural condition, with minor pollution of tar balls.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Future conservation actions (incl. OECMs)    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Threats                                      | Oil pollution, unregulated hunting, marine litter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Designation                                  | Part of the designated area of Ain Alghazala MPA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Cultural importance of the site              | Falconry and artisanal fisheries are the main cultural activities in the area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Active CSOs in the site region:              | Alhayat Organization for Protection of Wildlife and Marine Organisms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Women role in the site                       | Grazing and livestock.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 2.45                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Proposed Marine Area (Km <sup>2</sup> )      | 4.38                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| SPA/BD protocol                              | Dunes, sandy beaches, rocky beaches; hard bottoms, sands, marine vegetation beds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Ramsar                                       | <p>B -- Marine subtidal aquatic beds.</p> <p>E -- Sand, shingle or pebble shores.</p> <p>Ss -- Seasonal/intermittent saline/brackish/alkaline marshes/pools.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| SPAMI                                        | <ul style="list-style-type: none"> <li>• Site of Mediterranean importance for sea turtle species.</li> <li>• Site of Mediterranean importance for seagrass communities.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|                               |                                                                                                                                                                                                                                                                                                                       |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ramsar                        | Criteria 2,4,6.                                                                                                                                                                                                                                                                                                       |
| Criteria for the Libyan coast |                                                                                                                                                                                                                                                                                                                       |
| Priority 1                    | <ul style="list-style-type: none"> <li>Importance for threatened or endangered species and habitats: loggerhead sea turtles.</li> <li>Existence of threats likely to impair the ecological, biological, aesthetic value of the area: illegal hunting and trapping, blast fishing, sea turtle egg poaching.</li> </ul> |

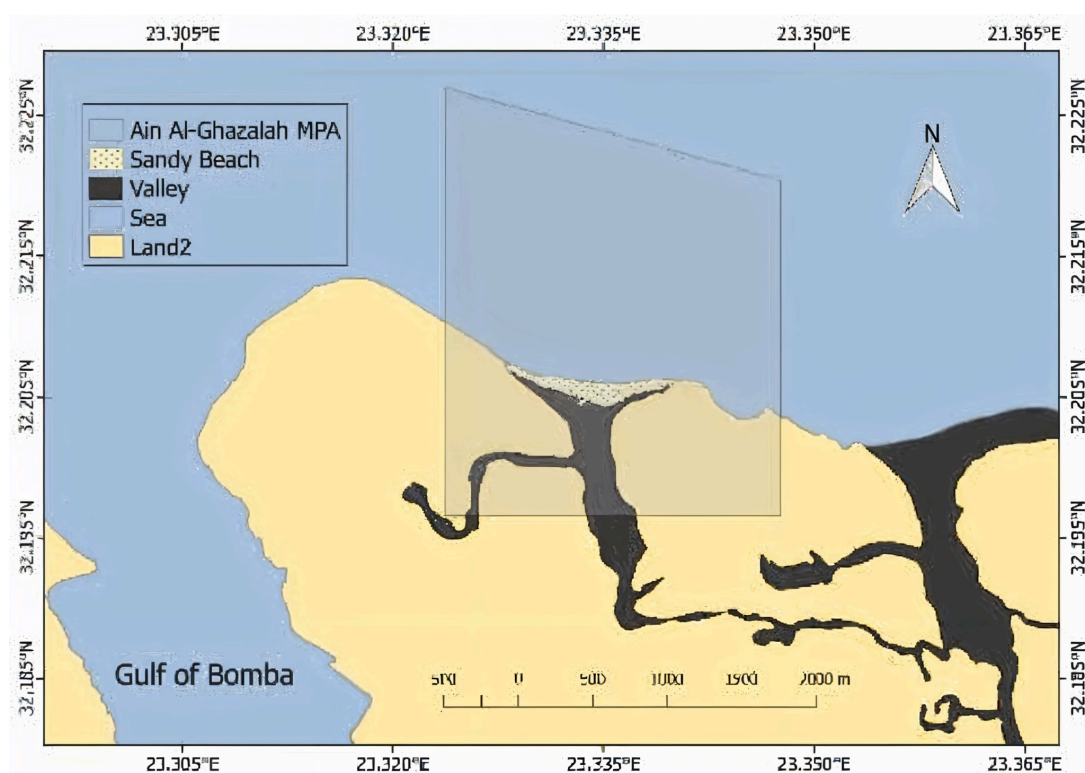


Figure 50 Proposed boundaries Beaches north of Ain Al Ghazalah





## Beaches of Al-Gurdaba

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                    | Beaches of Al- Gurdaba                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Region (Municipality)                        | Tobruk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Location                                     | 32° 10' N – 23° 27' E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Quality and importance                       | <p>Extended sandy beaches (13 km), with some wide beaches reaching over 800m inland, intersect with 4 valleys with sparse vegetation and date palm grooves.</p> <p>The site is an important nesting area for loggerhead marine turtles <i>Caretta caretta</i>. The marine area is characterised by seagrass meadows, which cover several square kilometres, and in the form of microatolls in deeper waters. The coastal waters of the site act as a nursery for several species of fish, such as sharks, rays, and marine invertebrates, and the open waters are a potential site for Mediterranean monk seals.</p> |
| Conservation Status                          | Many sectors of this beach were degraded during our visit, due to sand mining activities. The site is proposed as an MPA for marine turtles and seagrass habitats. An inventory of species and habitats are needed for the site as soon as possible.                                                                                                                                                                                                                                                                                                                                                                 |
| Future conservation actions (incl. OECMs)    | The site is proposed as an MPA for marine turtles and seagrass habitats. An inventory of species and habitats are needed for the site as soon as possible.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Threats                                      | Unsustainable use of natural resources (Bird trapping, including trapping of birds of prey for falconry), tar balls pollution, Illegal fishing gears (blast fishing, small mesh-size nets), Foreign illegal fishing, sand mining leading to changes in the site topography and hydrology.                                                                                                                                                                                                                                                                                                                            |
| Designation                                  | Under control of the local council                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Cultural importance of the site              | Falconry is the main cultural activities in the area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Active CSOs in the site region               | Alhayat Organization for Protection of Wildlife and Marine Organisms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Women role in the site                       | Grazing and livestock.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 24.57                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Proposed Marine Area (Km <sup>2</sup> )      | 21.17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Habitat types                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| SPA/BD protocol                              | Dunes, sandy beaches, rocky beaches; hard bottoms, sands, marine vegetation beds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Ramsar                                       | <p>B -- Marine subtidal aquatic beds.</p> <p>E -- Sand, shingle or pebble shores.</p> <p>Ss -- Seasonal/intermittent saline/brackish/alkaline marshes/pools.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Criteria applicable                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| SPAMI                                        | <ul style="list-style-type: none"> <li>• Site of Mediterranean importance for sea turtle species.</li> <li>• Site of Mediterranean importance for seagrass communities.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Ramsar                                       | Importance for threatened or endangered species and habitats: loggerhead sea turtles, Elasmobranchs. Migratory bird passage area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Priority 1                                   | Importance for threatened or endangered species and habitats: loggerhead sea turtles, Elasmobranchs. Migratory bird passage area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

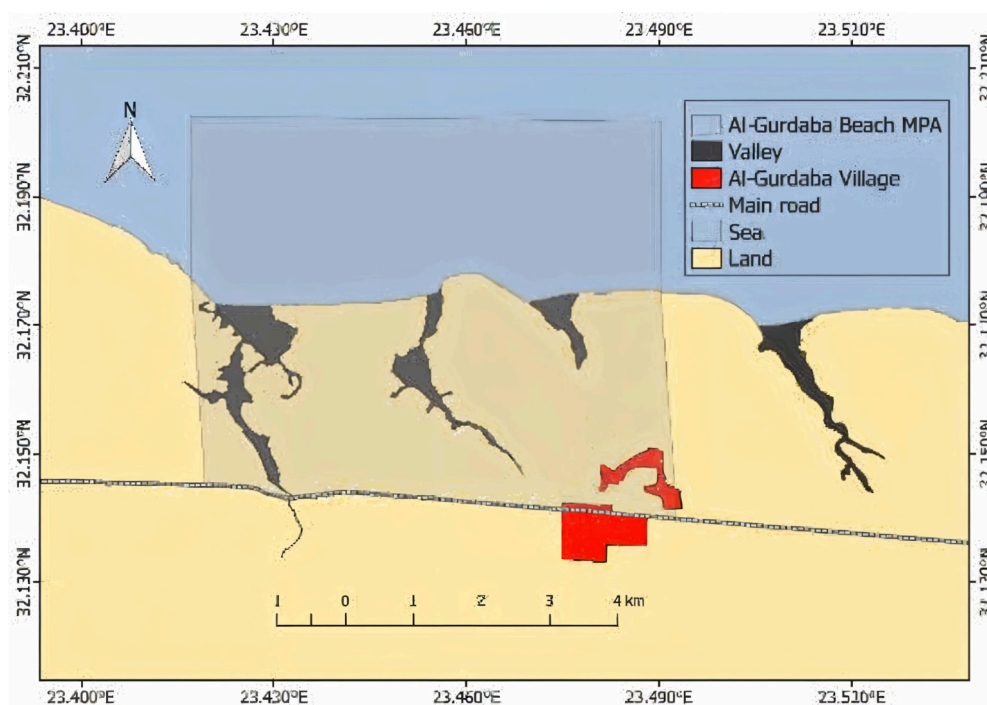


Figure 51 Proposed boundaries of Beaches of Al- Gurdaba Marine Protected Area.



Figure 52 General view of Beaches of Al- Gurdaba Marine Protected Area.





*Figure 53 Bird trapping at Beaches of Al- Gurdaba*



*Figure 54 Tar ball oil pollution at Beaches of Al- Gurdaba*





## 26 Gulf Bardiya (Al-Burdi bay)

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site name                                 | Bardiya (Al-Burdi bay)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Region (Municipality)                     | Tobruk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Location                                  | 32° 10' N – 23° 27' E<br>Located about 150 Km east of Tobrouk. The most eastern site near the Egyptian border. This site is used by local fishers as a landing site and for recreation by local tourists.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Quality and importance                    | <p>This site is surrounded by medium elevated limestone hills, crossed by two natural valleys, with water present all year round, and empties in the sea, creating an estuary ecosystem. When fresh and seawater meet, some fish species feed in the estuary area. Freshwater fish species include Mediterranean banded killifish <i>Aphanius fasciatus</i>, Nile tilapia <i>Oreochromis niloticus</i> (Introduced). Marine fish include common smooth-hound <i>Mustelus mustelus</i> (EN), blacktip shark <i>Carcharhinus limbatus</i> (VU), hammerhead shark <i>Sphyrna lewini</i> (CR), Dusky grouper <i>Epinephelus marginatus</i> (VU), and several species of seabreams Sparidae family. As the site is located near the Egyptian waters, several non-indigenous species are reported here, <i>Siganus luridus</i>, <i>Siganus rivulatus</i>, <i>Sphyrna chrysotaenia</i>, <i>Herklotsichthys punctatus</i>, <i>Hemiramphus far</i>, <i>Fistularia commersonii</i>, <i>Lagocephalus sceleratus</i>, and some mollusc species and algae. The freshwater stream makes an important wetland, with a typical Mediterranean freshwater wetland ecosystem, dominated by halophytic plants, such as <i>Salicornia</i>, <i>arthrocneumum</i>, Typha, and Phragmites. Several waterbird species are found here, such as: herons, egrets, waders (Kentish plover <i>Charadrius alexandrinus</i> ducks, harriers, and several non-aquatic species. The area is also an important corridor for avian migratory species, particularly birds of prey (Falcons), such as Eleonora's falcon <i>Falco eleonora</i> (EN- Mediterranean population). No information is available on the mammalian diversity on land, but several marine mammals are reported, such as common dolphins, bottlenose dolphins, and fin whales. The site is important as a post-nesting stop for green and loggerhead turtles. It is a potential site for monk seals, even if no assessment has been conducted, due to the presence of the Greek seal population, 300 km north.</p> <p>The bay bottom is mostly sandy with some rocky substrates. Dominated by <i>Cymodocea nodosa</i> and in deeper waters, <i>Posidonia oceanica</i> meadows are common.</p> |
| Conservation Status                       | Threatened by development and plastic pollution.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Future conservation actions (incl. OECMs) | <p>The site is declared as an MPA (MOE decree 272/2021), although no management measures are in place currently. The site was a tourism development. Since 2010, a hotel was built on the bay beach, but it was closed and abandoned during our visit in 2022. A management unit and plan are needed for the site as soon as possible.</p> <p>The site is proposed as an MPA for marine turtles and seagrass habitats. An inventory of species and habitats are needed for the site as soon as possible.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Threats                                   | Unsustainable use of natural resources (Bird hunting, unregulated local tourism, development, anthropogenic pollution, marine litter, Illegal fishing gears (blast fishing, small mesh-size nets), foreign illegal fishing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Designation                               | Under control of the local council.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Cultural importance of the site           | The site attracts a number of tourists for its relation to World War II, and also for its unique mountainous landscape, Brill's masterpiece (Wall drawing from 1942) and Bardia castle. This small castle, located on the cliff tops and overlooking the sea, is the home of John Brill's famous drawing of Bardia Mural.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Active CSOs in the site region            | Alhayat Organization for Protection of Wildlife and Marine Organisms have a branch in Imsaed, near to Bardia.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Women role in the site                    | Limited agricultural activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|                                              |                                                                                                                                                                                                                                    |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Proposed Terrestrial Area (Km <sup>2</sup> ) | 28,21                                                                                                                                                                                                                              |
| Proposed Marine Area (Km <sup>2</sup> )      | 13,43                                                                                                                                                                                                                              |
| Habitat types                                |                                                                                                                                                                                                                                    |
| SPA/BD protocol                              | Dunes, sandy beaches, rocky beaches, hard bottoms, sands, marine vegetation beds.                                                                                                                                                  |
| Ramsar                                       | D -- Rocky marine shores, beneath nearby coastal cliffs.<br>E -- Sand, shingle or pebble shores.<br>M -- Permanent rivers/streams/creeks.                                                                                          |
| Criteria applicable                          |                                                                                                                                                                                                                                    |
| SPAMI                                        | <ul style="list-style-type: none"> <li>• potential monk seal feeding site.</li> <li>• Site of Mediterranean importance for seagrass communities.</li> </ul>                                                                        |
| CBD                                          | Importance for life history stages of the species, importance of threatened species and habitats, fragile habitat, low recovery                                                                                                    |
| Ramsar                                       | Criteria 2,4,6.                                                                                                                                                                                                                    |
| World Heritage                               | Several buildings and artifacts of World War II                                                                                                                                                                                    |
| Criteria for the Libyan coast                |                                                                                                                                                                                                                                    |
| Priority 1                                   | <p>Special importance for life history stages of the species: seabird colony site (loggerhead and green turtles).</p> <p>Importance for threatened or endangered species and habitats: seabirds, monk seal.</p> <p>Naturalness</p> |
| Priority 2                                   | Vulnerability, fragility, sensitivity: development, tourism, oil spills, and physical habitat properties: consequent degradation.                                                                                                  |
| Priority of conservation (Priority 1, 2)     | 1                                                                                                                                                                                                                                  |

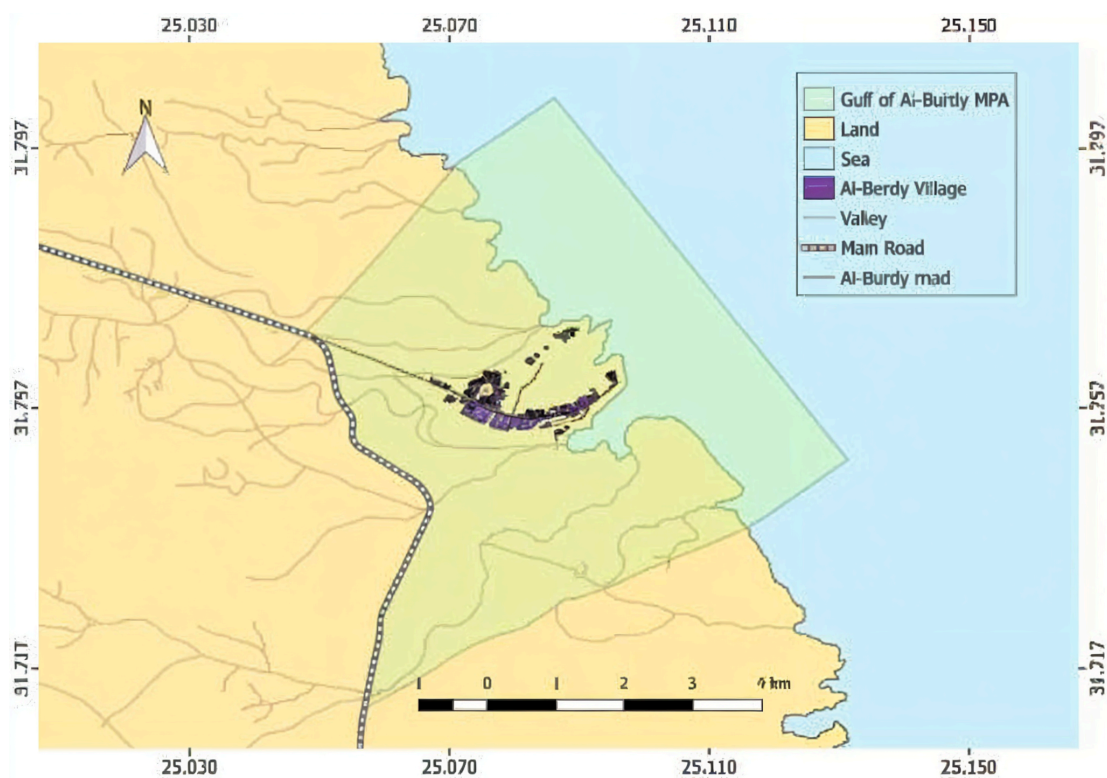


Figure 55 Proposed boundaries of Bardiya (Al-Burdi bay) Marine Protected Area.





*Figure 56 An overview of the Bardiya valley mouth and tourist hotel.*



*Figure 57 Current Eutrophication and solid waste pollution*





*Figure 58 Some blast fishing bombs used in Bardiya.*



*Figure 59 Bird shooting is common in Bardiya area.*

# New potential sites of conservation interest

During the national workshop held to present the initial results of this survey, some participants proposed the addition of several sites of conservation interest along the Libyan coastline as future MPA and OECMs sites. Here is a listing of most mentioned sites.

## 1. Mellaahet Elbrega

A vast transboundary salt marsh, used historically to extract brine that feeds a petrochemical plant at Bukammash (currently dismantled), and during winter months, considered an important waterbird and seabird roosting/feeding site. Gulls and Greater flamingos are among the species wintering here. The area is in good conservation status, with natural shrubs and halophyte floral cover, except for minor municipal waste near the Ras Ajdir border point and limited grazing during the dry season. It is located at 33°5'38.75"N, 11°34'36.38"E. The total area of the site is 60 km<sup>2</sup>, with 46 km<sup>2</sup> on the Libyan side and 14 km<sup>2</sup> on the Tunisian side. This site is a natural barrier between the two countries, but it could be used in the future as the first transboundary protected area in North Africa.



Figure 60 Google Earth image of Mellaahet Elbrega.



## 2. Sabratah

Sabratah is situated along the Mediterranean coastline, about 80 km West of Tripoli at 32°48'19.10"N, 12°29'6.43"E, and exhibits a diverse range of ecosystems. The coastal area comprises sandy beaches, rocky cliffs, and coastal plains shaped by the dynamic interaction between the sea and terrestrial processes. Erosion, sediment deposition, and wave action have played significant roles in shaping the coastal landforms over time. The clear blue waters are home to a variety of fish species, including grouper, bream, and mullet, as well as crustaceans and mollusks. The presence of seagrass beds and coral reefs further enhances the ecological diversity and provides essential habitats for numerous marine organisms.

## 3. Ghoot Alroman

Located 35 Km to the east of Tripoli, at 32°48'45.40"N, 13°33'20.68"E. This site is the first area to the east of Tripoli where human pressure is low, and the marine area is characterized with health seagrass meadows and diverse bottom structure, the terrestrial part is composed of sandstone medium elevated cliffs and scattered sandy beaches. Beyond that is a planted Mediterranean shrubland made of Pine trees and shrubs, used as a public picnic area. The site is interesting for conservation, and provide lots of opportunities to work with local stakeholders, who include divers, fishermen, and general public. The site requires both ecological and socioeconomic assessments.



*Figure 61 Google Earth image of Ghoot Alroman coastal area.*



## 4. Bsees island

A sandstone onshore island, with a total area of 4.3 hectares, and less than one km in perimeter. The islet is composed of low sandy cliffs, some surrounding hills, and scattered rocks interspersed with some local plants growing on the sandy rocks. The maximum height of the island is 8 meters above sea level. The site also provides nesting areas for doves and other species of migratory birds.

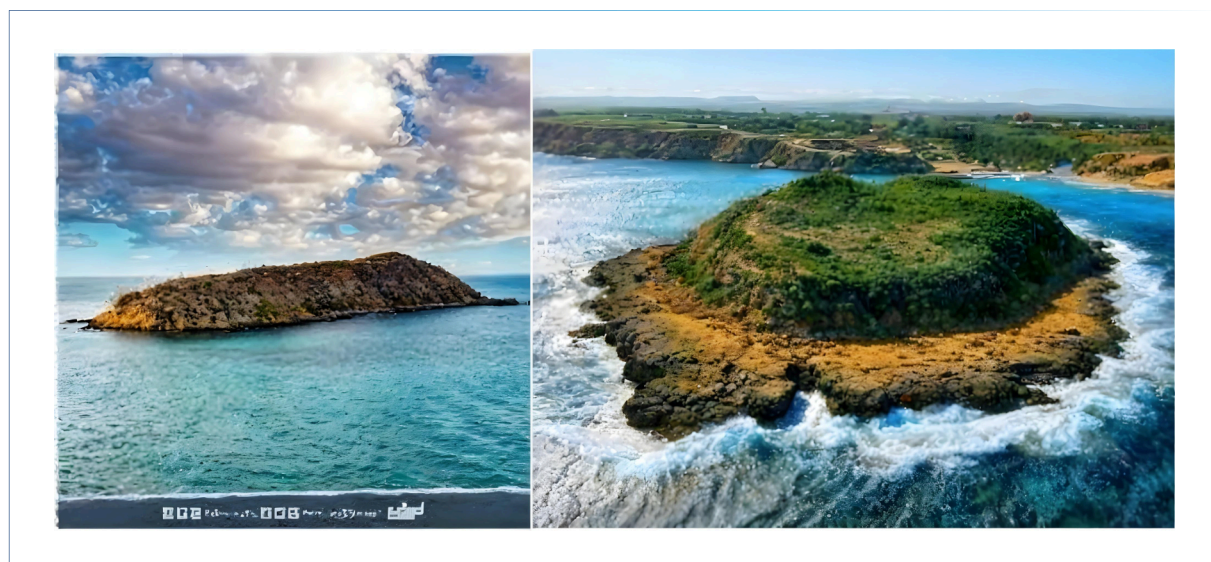


Figure 62 Views of Bsees island

## 5. Leptis Magna (110 km east of Tripoli)

Leptis Magna is an ancient coastal city located 110 Km east of Tripoli, at 32°38'8.35"N, 14°17'43.03"E. the area is known for its rich history and archaeological significance. The coastline consists of sandy beaches, rocky cliffs, and shallow coastal plains. These landforms have been shaped by wave action, erosion, and sediment deposition over thousands of years.

The coastal area of Leptis Magna supports a unique and diverse range of biodiversity. The Mediterranean Sea provides a thriving marine ecosystem, with a variety of fish species, crustaceans, and mollusks. The coastal waters are also home to several species of dolphins and sea turtles. On land, the coastal area is characterized by a mix of coastal dunes, shrublands, and salt marshes. These habitats support a variety of plant species, including salt-tolerant vegetation such as halophytes. The coastal dunes provide nesting sites for several bird species, including migratory birds that use the area as a stopover during their journeys. This archaeological city can serve as an OECM site.

## 6. Sites between Sirte and Ajdabiyah:

Several beaches and at sea sites located at the east of Sirte, along the oil exporting terminal area deserve further protection. They are mainly important nesting sites for sea turtles, as well as represent healthy meadows of seagrass habitats. Some sites are of great interest and require further studies, such as Ras Al-Gharra, near Benjawad, Alawejah rocky coast, Sultan to Ras Lanuf beaches, with diverse sand colouration and coastal formations.

## 7. Ras Azzaz, Tobrouk

A stretch of sandy beaches in forms of small bays, extending for 19 Km, located at 31°58'32.44"N, 24°53'47.95"E. The site is the most eastern sandy beach on the Libyan coastline. Its important geomorphological features allowed it to host several important species, such as nesting loggerhead sea turtles, migratory birds as well as for beach floral diversity and local tourism. Further information is needed to understand the complete overview of this site in future.





**Bombah, Derna District, Libya**  
| Photo by Documentaries Ly on Pexels



## General discussion

The rapid assessment of sites of conservation interest along the Libyan coastline is an important step towards the establishment of a network of Marine Protected Areas (MPAs) in the region. The assessment provides valuable data on the biodiversity and environmental status of 26 coastal sites, which will be used to inform the establishment of MPAs that aim to protect the region's unique ecosystems and promote sustainable development.

The report highlights the importance of involving local communities and CSOs in the establishment and management of MPAs. This is because local communities have a deep understanding of the region's ecosystems and can provide valuable insights into the environmental status of the sites. Involving local communities in the establishment and management of MPAs can also help to build support for conservation efforts and promote sustainable development in the region.

The report also emphasizes the need for capacity building to address the barriers that hinder the sustainability and effectiveness of the MPA network in Libya. Capacity building can include training programs for local communities and government officials, as well as the development of policies and procedures to guide the establishment and management of MPAs. Without a clear and effective management plan, MPAs can be difficult to manage and ensure that conservation objectives are met. Therefore, capacity building is essential to ensure the long-term sustainability and effectiveness of the MPA network in Libya.

Overall, the report provides updated data and insights that can be used to inform the establishment and management of MPAs in Libya and contribute to the global objective of protecting 30% of the Mediterranean as MPAs by 2030.

## Conclusions

- The rapid assessment of sites of conservation interest along the Libyan coastline provides valuable data that can be used to inform the establishment of a network of Marine Protected Areas (MPAs) in the region.
- Involving local communities and CSOs in the establishment and management of MPAs is important for building support for conservation efforts and promoting sustainable development in the region.
- Capacity building is essential to ensure the long-term sustainability and effectiveness of the MPA network in Libya.
- The UNEP/MAP's Child Project 3.1 can help to address capacity barriers and promote the establishment of effective and sustainable MPAs in the region.
- The report highlights the importance of conservation efforts to protect the region's unique ecosystems

# Recommendations

1. Establish a network of Marine Protected Areas (MPAs) in Libya: The rapid assessment of sites of conservation interest along the Libyan coastline provides valuable data that can be used to identify priority areas for the establishment of MPAs. Establishing a network of MPAs can help to protect marine biodiversity and promote sustainable development in the region.
2. Involve local communities and CSOs in the establishment and management of MPAs: By involving these stakeholders, it is possible to build support for conservation efforts and promote sustainable development in the region. Local communities and CSOs can also provide valuable knowledge and expertise that can inform the development of management plans for MPAs.
3. Address capacity barriers to ensure the long-term sustainability and effectiveness of the MPA network in Libya: Capacity building is essential to ensure that MPAs are effectively managed and monitored. The UNEP/MAP's Child Project 3.1 can help to address capacity barriers and promote the establishment of effective and sustainable MPAs in the region.
4. Consider ecological criteria when identifying priority areas for conservation: Ecological criteria, such as the ZNIEFF designation, should be considered when identifying priority areas for conservation. By considering these criteria, it is possible to ensure that the site's ecological importance is taken into account.
5. Implement monitoring and evaluation policies to track progress toward conservation goals: Monitoring and evaluation policies and procedures are essential for tracking progress toward conservation goals and making necessary changes in business practices. The table within the methodology section details all methods, performance indicators, and deliverables with a timeframe for each activity.
6. Address the power limits of MPAs by implementing other measures to protect marine biodiversity: While MPAs can be effective tools for protecting marine biodiversity, they are not a panacea. Other measures, such as reducing pollution and addressing climate change, are also necessary to protect the region's unique ecosystems.
7. Develop a comprehensive communication strategy to raise awareness about the importance of marine conservation: A comprehensive communication strategy can help to raise awareness about the importance of marine conservation and build support for the establishment and management of MPAs in Libya. The strategy should target a wide range of stakeholders, including local communities, CSOs, government officials, and the general public.
8. Strengthen collaboration among regional partners to promote the establishment of effective and sustainable MPAs in the region: The success of the UNEP/MAP's Child Project 3.1 depends on the collaboration among regional partners, including the Regional Activities Centre for Specially Protected Areas (SPARAC), IUCN Mediterranean Cooperation Centre, and the World Wide Fund for Nature (WWF North Africa office). Strengthening collaboration among these partners can help to promote the establishment of effective and sustainable MPAs in the region.

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# Annex I: List of participants to the National Workshop held in Tripoli, on 26 January 2023.

|    | Name                      | Province | Affiliation                                                                   |
|----|---------------------------|----------|-------------------------------------------------------------------------------|
| 1  | Dr. Ibrahim Munir         | Tripoli  | Minister of Environment                                                       |
| 2  | Riad Mohamed              | Tripoli  | Office of decision support, PM office,                                        |
| 3  | Elmaki Ayad Elagil        | Tripoli  | Nature Conservation Department, MOE                                           |
| 4  | Atef Limam                | Tunis    | NEP-MAP/ SPA/RAC                                                              |
| 5  | Jamel Jrijer              | Tunis    | WWF North Africa                                                              |
| 6  | Mehdi Issi                | Tunis    | WWF North Africa                                                              |
| 7  | Maher Mahjoub             | Malaga   | IUCN Mediterranean Centre                                                     |
| 8  | Abdulmaula Hamza          | Tripoli  | Project national expert                                                       |
| 9  | Murad Sola                | Tripoli  | Nature Conservation Department, MOE                                           |
| 10 | Nabil Sharafeddin         | Tripoli  | Nature Conservation Department, MOE                                           |
| 11 | Zakia                     | Tripoli  | Nature Conservation Department, MOE                                           |
| 12 | Sana Aldali               | Tripoli  | Nature Conservation Department, MOE                                           |
| 13 | Mr. Saleh Deryag          | Sirte    | Ministry of Environment -Sirte                                                |
| 14 | Mr. Emhemed Shagloof      | Sirte    | Ministry of Environment -Sirte                                                |
| 15 | Mr. Milad Alshater        | Sirte    | Ministry of Environment -Sirte                                                |
| 16 | Salih Aljarrari           | Tobruk   | Ministry of Environment - Tobruk                                              |
| 17 | Huseen ben Ali            | Beida    | Ministry of Environment - Beida                                               |
| 18 | Almokhtar Saied           | Tripoli  | Environment Section of National council for human rights                      |
| 29 | Saied Abuodahab           | Derna    | Alhayat Organisation for Wildlife conservation                                |
| 20 | Almabrook Abdulsalam      | Derna    | Alhayat Organisation for Wildlife conservation                                |
| 21 | Sewar Mohamed             | Zwara    | Bado Environmental Association to protect marine and wild life                |
| 22 | Nader Azzabi              | Zwara    | Besida Environmental Society for the Protection of Farwa Island and Lagoon    |
| 23 | Nader Ghriba              | Zwara    | Besida Environmental Society for the Protection of Farwa Island and Lagoon    |
| 24 | Mr. Waleed Alhilali       | Benghazi | Green Fingerprint Association for the Preservation of the Environment         |
| 25 | Dr. Esmale Shakman        | Tripoli  | University of Tripoli & Libyan Association for friends of Artisanal fisheries |
| 26 | Mr. Ali Berbash           | Tripoli  | Libyan Society for Birds                                                      |
| 27 | Dr. Abdelghani Abdelghani | Beida    | Marine Biology in Libya CSO                                                   |
| 28 | Dr. Osama Silini          | Benghazi | University of Benghazi                                                        |
| 29 | Dr. Jamila Rizgalla       | Tripoli  | University of Tripoli                                                         |
| 30 | Dr Mahmoud Almabrook      | Tobruk   | Libyan Academy of higher studies                                              |

## Annex II: List of persons/ institutions contributed to this report/fieldwork.

|    | Name                     | Province  | Affiliation                                                                |
|----|--------------------------|-----------|----------------------------------------------------------------------------|
| 1  | Mr. Saleh Burzeiga       | Derna     | Alhayat Organisation for Wildlife conservation CSO                         |
| 2  | Mr. Abdallah Budahab     | Derna     | Alhayat Organisation for Wildlife conservation CSO                         |
| 3  | Mr. Faouzi Dhan          | Zwara     | Bado Environmental Association to protect marine and wild life             |
| 4  | Mr. Shukri Dhan          | Zwara     | Bado Environmental Association to protect marine and wild life             |
| 5  | Mr. Nader Azzabi         | Zwara     | Besida Environmental Society for the Protection of Farwa Island and Lagoon |
| 6  | Mr. Nader Ghriba         | Zwara     | Besida Environmental Society for the Protection of Farwa Island and Lagoon |
| 7  | Mr. Mustafa Almontasi    | Garabulli | Environment Section of National council for human rights                   |
| 8  | Mr. Almokhtar Said       | Tripoli   | Environment Section of National council for human rights                   |
| 9  | Mr. Mustafa Elrogi       | Ajdabiya  | Fisherman at Gara island area                                              |
| 10 | Mr. Ahmed Elrogi         | Ajdabiya  | Fisherman at Gara island area                                              |
| 11 | Mr. Waleed Alhilali      | Benghazi  | Green Fingerprint Association for the Preservation of the Environment      |
| 12 | Dr. Esmale Shakman       | Tripoli   | Libyan Association for friends of Artisanal fisheries                      |
| 13 | Mrs. Sara Zeglam         | Tripoli   | Libyan Association for friends of Artisanal fisheries                      |
| 14 | Mrs. Sara Zeglam         | Tripoli   | Libyan Society for Birds                                                   |
| 15 | Dr. Khaled Etayeb        | Tripoli   | Libyan Society for Birds                                                   |
| 16 | Ms. Sara Almabrook       | Beida     | Marine Biology in Libya CSO                                                |
| 17 | Mr. Kamal Bulrahal       | Tobrouk   | Ministry of Environment - Tobrouk                                          |
| 18 | Mr. Saleh Deryag         | Sirte     | Ministry of Environment -Sirte                                             |
| 29 | Mr. Emhemed Shagloof     | Sirte     | Ministry of Environment -Sirte                                             |
| 20 | Mr. Milad Alshater       | Sirte     | Ministry of Environment -Sirte                                             |
| 21 | Mr. Elmaki Elagile       | Tripoli   | Ministry of Environment -Tripoli                                           |
| 22 | Mr. Murad Sola           | Tripoli   | Ministry of Environment -Tripoli                                           |
| 23 | Dr. Osama Silini         | Benghazi  | University of Benghazi                                                     |
| 24 | Dr. Abdelghani Alkaloosh | Beida     | University of Omar Almokhtar                                               |
| 25 | Dr. Jamila Rizgalla      | Tripoli   | University of Tripoli                                                      |
| 26 | Mr. Ibrahim Elkahwaji    | Tripoli   | PPI-OSCAN Project, IUCN Med                                                |





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**The GEF/UNEP MedProgramme (2019–2026)** represents the first GEF programmatic multi-focal area initiative in the Mediterranean Sea, aiming to operationalize priority actions to reduce major transboundary environmental stresses in its coastal areas while strengthening climate resilience and water security, as well as improving the health and livelihoods of coastal populations. The MedProgramme is implemented in ten beneficiary countries sharing the Mediterranean basin: Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco, Tunisia, and Turkey. It involves a wide spectrum of developmental and societal sectors, ranging from banking institutions, the private sector, governmental and non-governmental bodies, industry, research, media, and various other organizations. It builds on the work of UNEP/MAP and previous GEF investments in the region, which have enriched knowledge on the Mediterranean environment and unraveled the implications of climate change and variability; strengthened countries' mutual trust, cooperation, and common purpose; consolidated partnerships among countries, UN bodies, civil society organizations, bilateral donors, and the European Union (EU); and tested on the ground the feasibility and effectiveness of technical and policy instruments aimed at addressing major present and future threats to environmental sustainability and climate-related impacts.