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Arab Regional Centre for World Heritage (ARC-WH) under the auspices of UNESCO
المركز الإقليمي العربي للتراث العالمي تحت رعاية اليونسكو

TABE'A

IUCN

# Marine World Heritage Sites in the Arab States

## Factsheet

Socotra Archipelago, Yemen

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### What is a marine ecosystem?

Marine ecosystems are among the largest of Earth's aquatic ecosystems. They include oceans, salt marshess, inter-tidal ecosystems, estuaries, lagoons, mangroves, coral reefs, and the deep sea marine environment. They can be contrasted with freshwater ecosystems, which have a lower salt content. Marine waters cover two-thirds of the Earth surface. Such places are considered ecosystems because the plant life supports the animal life and vice-versa.

### Marine World Heritage Sites (MWHS)

Despite all efforts, only 47 (4.5%) of 1031 existing World Heritage sites are formally recognized for Outstanding Universal Value of their marine natural values. This is around 24% of all natural sites, and the area included in these marine sites is extremely large relative to other classes of World Heritage sites due to the very large size of some marine listings.

### Did you know?

- Over **70%** of earth's surface is covered by ocean.
- Oceans are home to **80%** of the world's biodiversity.
- About half of earth's human population lives in coastal regions.
- **10%** of the earth's surface is covered with marine ice.
- Oceans produce over **50%** of the Oxygen in the atmosphere.
- Less than **0.2%** of the high seas are protected.

Table 1 Geological, physical oceanographic and biological themes with potential for Outstanding Universal Value under the World Heritage Convention. Consistent with recent practice to use criterion (vii) only when at least one of the other criteria is satisfied. Abdulla *et al*. (2013) listed superlative phenomena as the last of the 16 themes for the marine environment, hence criterion (vii) is tabulated after criterion (x).

| Criterion (viii) | | Criterion (ix) | Criterion (x) | Criterion (vii) |
|---|---|---|---|---|
| Geology | Oceanography | Ecological and biological processes | Species and biodiversity | Superlative phenomena and/or exceptional beauty |
| 1. Plates & tectonic features<br>2. Hotspots, seamounts<br>3. Sedimentary processes (slope. rise and deep sea beds, submarine, canyons)<br>4. Vents, seeps, & other hydrogeological features | 5. Water mass<br>6. Ocean currents<br>7. Waves and other phenomena<br>8. Coastal processes & land-sea interactions<br>9. Ice | 10. Biogeochemical cycles & productivity<br>11. Connectivity<br>12. Marine ecosystems, processes & services | 13. Diversity of marine life<br>14. Biogeography & components of diversity<br>15. Threatened & flagship species | 16. Marine phenomena & spectacles |

**Socotra Archipelago** is globally important for biodiversity conservation; it hosts **253** species of reef-building corals, **730** species of costal fish and **300** species of crab, lobster and shrimp.

**Banc d'Arguin National Park** is a globally important site for migratory waterbirds, the property also supprts several species of marine turtles, **45** fish species, **11** species of shellfish and several species of mollusks.

The Arab Region has a very rich marine biodiversity including coral species, sea grass and other marine species. Nonetheless, there are only two inscribed marine World Heritage sites in the Arab region, namely Banc d'Arguin National Park in Mauritania and Socotra Archipelago in Yemen, out of a total of 79 World Heritage sites (cultural, natural and mixed) in the Arab region. It is important to encourage nominating more marine sites to fill the gap on the World Heritage List and expand the international protection of marine ecosystems and biodiversity.

Table 2 Summary of the current distribution and coverage of 6 marine World Heritage sites in provinces defined by the Marine Ecoregions of the World (MEOW) classification scheme (Spalding *et al*. 2007) covered in Arab region.

| MEOW Province | Province area ($km^2$) | Number of MWHS | Total area of MWHS | Percentage of province covered by MWHS |
|---|---|---|---|---|
| Lusitanian (Banc d'Arguin) | 307,450 | 1 | 339 | 0.1% |
| Mediterranean Sea | 689,715 | 2 | 114 | <0.1% |
| Red Sea and Gulf of Aden (Socotra) | 286,347 | 1 | 1,234 | 0.4% |
| Western Indian Ocean | 492,743 | 2 | 1,040 | 0.2% |

## Purpose of this factsheet

The purpose of this factsheet is to provide States Parties in the Arab Region with brief guidance on how to identify potential marine World Heritage Sites in their countries. The factsheet is based on the IUCN study 'Marine Natural Heritage and the World Heritage List' (2013) and several UNESCO publications. The factsheet identifies some potential sites in the region that have significant natural values, but this does not imply that these sites do in fact meet the World Heritage criteria for Outstanding Universal Value. The factsheet also summarises some key facts and figures on marine World Heritage for the region.

### The Red Sea

The Red Sea represents one of the most significant and unique regions of tropical marine biodiversity in the world. High species diversity, endemism and highly complex biogeography are its key features. Additionally, the Red Sea contains one of the only viable populations of dugong in Africa.

#### Northeast Red Sea (Egypt and Saudi Arabia)

Noted as a region with potential World Heritage values in IUCN (1982); Thorsell *et al*. (1997) and Hillary *et al*. (2003). The northeast Red Sea and Gulf of Aqaba transboundary area consists of Ras Mohammed (on Egypt's Tentative List since 2002), and Al Wejh bank (Saudi Arabia). Ras Mohammed has a high oceanographic importance because of its unusual geological processes.
Additionaly it is an area of upwelling that facilitates larval transport. This area contains the northern most mangroves in the region and is known for its diverse coral reefs. Both sites are also important as turtle foraging sites.

#### Southern Red Sea (Djibouti, Eritrea, Saudi Arabia and Yemen)

Noted as a region with potential World Heritage values in Thorsell *et al*. (1997); Hillary *et al*. (2003) and Bertzky and Kenney (2011). This complex is composed of Farasan in Saudi Arabia, Dahlak in Eritrea, Belhaf Bir Ali in Yemen (on Yemen's tentative List since 2002), Sept Freres Islands, Ras Siyan and Bab Al-Mandab in Djibouti. Farasan is a marine protected area and has the most extensive mangroves in Saudi Arabia, a diverse range of corals, algal reefs, and intertidal flats and seagrass beds. The Southern Red Sea has a high fish diversity and contains Dugongs, Sea Turtles and four species of Cetacean. Dahlak is considered a larval reservoir that feeds Farasan.

#### Sanganeb Marine National Park (Sudan) in the Central Red Sea

Noted as a site with potential World Heritage values IUCN (1982) and Bertzky and Kenney (2011) This is the first marine national park gazetted in the Sudan in 1990. It covers an area of about 26,000 hectares on the western shore of the Central Red Sea. The park is known for its richness of marine life forms among which 124 groups of coral reef exist, three species of sharks, dolphins, turtles, fishes and

### Sites with marine values on the World Heritage tentative Lists in the Arab Region (as of March 2016)

**Bahrain:** Hawar Islands (2001)

**Egypt:**

a. Desert Wadis (2003)
b. Ras Mohammed (2002)

Oman:

a. Al Dimaniyyat Islands Proposed Nature reserve (2013)
b. Al Hallaniyyat Island Proposed Natural reserve (2013)
c. Bar Al Hakman Proposed natural reserve (2013)
d. Ras Al Had Turtle reserve & the Heritage site Ras Al Jinz (2013)

**Palestine:** Wadi gaza coastal wetland (2012)

**Qatar:** Khor Al Udaid (2008)

**Lebanon:** Palm Islands (1996)

**Morocco:** Parc national de Dakhla (1998)

**Sudan:** Sangadeb national Park (2004)

**Tunisia:** Oasis de Gebes (2008)

**United Arab Emirates:** Sir Bu Nair (2012)

**Yemen:**

a. Belhaf/Burum coastal area (2002)
b. Sharma/Jethmun coastal area (2002)

Red Sea, Sudan © Cousteau

a variety of molluscs and urchins (sessile and locomotory members of both groups) and it also the only coral reef atoll in the Red Sea. The site has been on Sudan's Tentative List since 2004 and a nomination has been submitted in 2014 and is currently under IUCN evaluation

### Southeast of Oman (Oman)

Noted as a region with potential World Heritage values in Hillary *et al*. (2003) This area includes the Masirah Islands Bar Al Hakman (on Oman's Tentative List since 2013) and Ras Al Hadd (on the Tentative List since 2013), and has a potential to be nominated as a serial site. This area has the largest loggerhead turtle nesting grounds in the world (>30,000 turtles/year), and is also an important feeding ground for green turtles. Ras Al Hadd is one of the largest green turtle nesting areas in the world. The area also contains 22 cetacean species.

### Arabian Gulf

#### Southern Gulf (Bahrain and United Arab Emirates)

Noted as a region with potential World Heritage values in Hillary et al. (2003) The Southern Gulf complex is composed of three single areas that may have the potential to meet the criteria for Outstanding Universal Value: Murawah Island and Bu Tina Shoals in the United Arab Emirates, Hawar Islands (on Bahrain's Tentative List since 2001), and Jubail Wildlife Sanctuary (Bahrain and Saudi Arabia). The seagrass ecosystem of the Arabian Gulf is a unique biotope. It is found in a shallow marine basin that is formed on the north-eastern and eastern edge of the Arabian tectonic plate. The Gulf is a shallow semi-enclosed sea measuring around 1000 km by 200-300 km. On average, it is only around 35 meters deep, and at its deepest point in the southeast (near the entrance to the Strait of Hormuz) it only reaches about 100 meters. Climatically this is an extremely harsh region; most of the Gulf is sub-tropical and the surrounding arid land masses drive extremes of temperatures, with air temperatures frequently reaching 50°C in summer, but falling to 0°C in winter. The shallow water does little to ameliorate these fluctuations and most near shore waters range between 10 and 39°C throughout the year. Currents are greatly restricted in the embayment of the Gulf of Salwah and the shallow waters of the United Arab Emirates, driving massive evaporation and even more extreme environmental conditions.

Ras Al Hadd, Oman © Ministry of Environment and Climate Affairs

***Disclaimer***

*Inclusion of a site in this list of possible priorities is without «prejudice to the success of any nomination that could be put forward and does not guarantee its future inclusion on the World Heritage List.»*


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