

Information Sheet on Ramsar Wetlands

1. Date this sheet was completed:

4th March 1998

2. Country

Bahrain

3. Name of Wetland

Gulf of Tubli

4. Geographical coordinates:

26°11' N, 50° 34' E

45. Altitude:

Sea level

6. Area in hectares

Approx. 1.6 ha

7. Overview:

A sheltered bay with large intertidal mud/sand flats . Accommodates the last remaining mangroves in Bahrain. Important nursery area for prawns and some fishers. The bay represent is a good staging and wintering area for many waterfowl species.

8. Wetland Type:

G-H

9. Ramsar Criteria

1b-2c-3b-4b

10. Map of site included ? **Yes**

11. Name and address of compiler: **Suhad Al-Shehabi**

12. Justification of the criteria selected under point 9:

-

13. General location:

Northeast corner of the main island of Bahrain. South of capital city Manama.

14. Physical features:

A natural shallow sheltered bay. Surrounded by developed urban areas and date palm plantations. The bay contains extensive intertidal mud and sand flats. Large area is covered by brown and green algae which is used by traditional fishermen as bait. The only remaining natural mangrove site is located at Ras Sand in the southwest. It receives freshwater and brackish water from nearby garters irrigated plantations and treated sewage effluent form two treated plants. The tidal regime is semi-diurnal and salinity is about 40 ppt.

15. Hydrological Value:

The last remaining mangrove swamp in the country. An important nursery ground for commercially important shrimps such as *Penneus semisulcatus* and *Metapenaeus stebbingi* as well as some other marine fishers. The bay was an important location for many submarine freshwater springs.

16. Ecological Features:

The intertidal area supports the last natural mangrove in the country *Avicennia marina* and intensive cover of green and brown algae. Adjacent terrestrial area supports halophytic plants like *Salicornia*, *Suaeda* and *Hammada*. Reeds *Phragmites australis* and *Juncus sp.* Present along drains and ditches. Large number of date palm trees occurs alongside the coastal zone.

17. Noteworthy flora:

The site is the only place for mangrove *Avicennia marina* in Bahrain. It represents a good place for salt-marsh community.

18. Noteworthy fauna:

One of the main sites for migratory waterfowl in the country. More than 45 different species of waterfowl were reported. This includes Herons, shorebirds, gulls, terns and ducks. Moorhen *Gallinula chloropus* and Black-winged stilt *Himantopus himantopus* breed among mangrove trees. Various species of shrimps and fish visit the bay during high tide.

19. Social and Cultural Values:

The site is the only place where *Avicennia marina* can be found. It is considered as very important nursery area for prawns and some fishes. It is an ideal place for outdoor recreation and very attractive area for nature based tourism.

20. Land tenure/ownership:

(a) site: Government.

(b) surrounding: Private.

21. Current land use:

Recreation, fishing and cultivation mainly date palms and vegetables in the surrounding area. Fishermen regularly collect green algae from the bay and use it as bait for catching the commercially important Rabbit fish. Continuous filling to build new properties in the adjacent areas.

22. Factors (past, present or potential) adversely affecting the site ecological character, including changes in land use and development:

(a) at the site:

1. Land filling and reclamation was the main factor affecting the site due to high demand for area in the country.
2. Oil spills and other effluents.

3. Marine Sand washing firms plants discharge water containing high amounts of silt in the intertidal area

(b) around the site:

1. **Continuous property building and other development led into the decline of the natural features of date palm areas.**
2. **Due to the shrinking of plantation some rare habitats have been lost one of which a roosting area for the rare Grey Hypocolius in the late eighties.**

23. Conservation measures taken:

A decision was taken in 1988 to declare the mangrove area at Ras Sand as natural reserve under the supervision of Environmental Protection Committee. This area represents only a small section of the bay, which does not exceed 250 ha. A mangrove replanting programme was conducted but the result was not as expected. The boundary of the area was designated but no management plan was implemented during that period.

24. Conservation measures proposed but not yet implemented:

A combined effort of various agencies like National Committee for Wildlife Protection (NCWP) and the Directorate of Environmental Affairs (EA) led the Government of Bahrain to consider the whole bay as national reserve. A comprehensive management plan is under development to be implemented as soon as the bay is declared as natural reserve. The site has been recognized as an Important Bird Area by Bird Life International.

25. Current Scientific research and facilities:

For more than a decade Tubli Bay was a site where large number of surveys and research projects have been conducted. Since the establishment of EPC in 1982, it has been involved in conducting research in Tubli Bay. Researchers from the University of Bahrain, Arabian Gulf University, Bahrain Center for Scientific Research and the Directorate of Fisheries covered various aspects of the area including its fauna, flora, to discuss the problems affecting the bay and to campaign for designating the bay as natural reserve.

26. Current conservation education

The Public Awareness Committee guided by EIA organized and educational programme, which emphasize on the importance of the area, and arranged several visits to the site and interviews for the public and students. The NCWP has recently produced a documentary film on the bay. A plan to establish a visitor center was prepared and the area will have some bird hides to be used for bird watchers.

27. Current recreation and tourism:

The bay has considerable potential for outdoor recreation and tourism. The site is among other areas in Bahrain, which are considered as attractive sites for nature based tourism. The nature based tourism plan will be formulated in the near future.

28. Jurisdiction:

The Directorate of Environmental Affairs at the Ministry of Housing, Municipality and Environment is the official body in charge of the natural reserve at the mangrove area . It is also following the process of to designate the whole area as protected area.

29. Management authority:

**Directorate of Environmental Affairs
Ministry of Housing, Municipality and Environment
P .O. Box 26909
State of Bahrain**

30. Bibliographical References:

Abdulgader, E. A. (1994). The role of Tubli Bay in the Life Cycle of the Penaeid Shrimps of Bahrain In: Proceedings of Symposium on Tubli Bay: Problems and Solutions, Bahrain, 10 January 1994.

Basson, P. W. (1989) . Fish bait algae . Economic Botany, Vol. 43:271-278

Evans, (1994). Important Bird Areas in the Middle East. Birdlife Conversation Series No. 2. Birdlife International, Cambridge, UK.

Mohammed, S. A. (1994). Aquatic Bird in Tubli Bay. In: Proceedings of Symposium on Tubli Bay: Problems and Solutions, Bahrain, 10 January 1994.

Mohammed, S. A. (1997) Density and Distribution of Migratory Waders Along the Shores of Bahrain Islands. Arab. Gulf. J. Scient. Res Vol. 15(2).

Vousden, D. H. (1986) The Bahrain Marine Habitat Survey. 2 Vol Environmental Protection Committee, State of Bahrain.