

## Information Sheet on Ramsar Wetlands

1. **Date this sheet was completed/updated:** 1 June 1999

2. **Country:** Mauritania

3. **Name of wetland:** Parc National du Banc d'Arguin

4. **Geographical coordinates:**

19° 21' – 20° 50' North latitude

15° 57' – 16° 45' West longitude

5. **Altitude:** sea level

6. **Area:** 1,200,000 hectares, half marine and half continental

7. **Overview:**

The Parc National du Banc d'Arguin is located at the crossroads of the Palaeartic and Afro-tropical areas. It is the meeting point of the Saharan desert and the Atlantic Ocean where the Saharan desert disappears into a very shallow (5 metres of water at 50 kilometres from the coast), where former estuaries converged and created large pools crossed by channels and covered in some places by fields of underwater marine plants.

This is an unusual coastal ecosystem replenished by cold upwelling loaded with mineral salts. It has a high biological productivity because of the simultaneous presence of underwater grasses and an important upwelling that explains the presence of dense and diversified populations of waterfowl, fish, invertebrates and marine mammals.

8. **Wetland type:** marine/coastal A, B, D, E, G, J

All types of marine and coastal wetlands identified above are very well represented in the national park. The most remarkable are 450 square kilometres of pools and Spermatophyta grasses exposed at low tide, an even larger surface but not yet studied of underwater grasses and a series of sandy or sandstone islands and islets, with or without vegetation in the southern part of the Park.

9. **Ramsar criteria:** 1a, 1d, 2a, 2b, 2c, 2d, 3a, 3b, 3c, 4a, 4b

Which criterion best describes this site: The biological complexity and wealth of the national park makes the choice of a single characterizing criterion difficult.

10. **Map of site included? Please tick yes -or- no**

11. **Name and address of the compiler of this form:**

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## 12. Justification of the criteria selected under point 9, on previous page:

Criterion 1. There are populations of the green turtle (*Chelonia midas*), the leatherback turtle (*Dermochelys coriacea*), many species of selachians more or less threatened in West Africa among which the *poisson paille* (*Rynchobathos lubertii*) and the Mediterranean monk seal (*Monachus monachus*) in the adjacent reserve of Cap Blanc. There are mangroves of *Avicenia africana*, which are the northern most in Africa and water grasses (*Spartina maritime*), the southern most in the eastern Atlantic.

Criterion 3. There is the most important world concentration of Palaearctic shore birds (up to 2,300,000 specimens); breeding colonies that are among the most important in West Africa. The minimum of 1 per cent of world population is greater for more than 20 species. For example, 68 per cent of the world population of *barges rouses*, 49 per cent of the world population of *bécasseaux maubèches*; 42 per cent of the world population of *grands gravelots*.

Criterion 4. This is a regional area for reproduction, growth and feeding for many species of bony fish and selachians (rays and sharks).

## 13. General location:

Nouadhibou, the economic capital, is about 10 kilometres (50 kilometres by road) from the northern border of the park. Nouakchott, the political capital, is 160 kilometres from the southern border. The national park is completely within the wilaya (administrative region) of Dakhet Nouadhibou.

## 14. Physical features:

The land portion of the Banc d'Arguin National Park is characterized by typically Saharan landscapes of more or less shifting dunes and regs, in a dry climate with major influences from the ocean with very light rainfall (less than 40 millimetres per year) and constant prevailing winds, the southern trade winds. Near the coast, *sebkhas* appear, evaporation sumps located at sea level, where there is salt water. The local humidity is important (cold coastal desert).

The coastal area shows an alternation of long sand beaches interrupted by rocky points (Cap Tafarit, Cap Tagarit and Cap Timiris). Banc d'Arguin itself is a very large shoal over which water depth rarely is more than five metres. This is a lagoon-sea system, which was probably long ago an estuary or delta, the southern part if the bank has a

complete network of canals, sand banks, Spermatophyta grasses, pools, islands and islets that the tides shape twice a day.

#### 15. Hydrological values:

There is no surface freshwater within the national park, especially since the long droughts of the 1970s and 1980s. Exploration is under way to study the area of the Beni Châb aquifer under the continental part of the national park. The coastal area is the site of active sedimentation, and the coastline is unstable.

#### 16. Ecological features:

This is an arid Saharan habitat with soil salinization near the coast. The typical scattered sclerophyllous vegetation including the *faux-gommier* (*Acacia tortilis*), *Barlanites aegyptiaca*, the *pommier de Sodome* (*Calotropis procera*) the *figier d'enfer* (*Euphorbia balsamifera*), *Panicum turgidum*, *Stipagrostis pungens* (outstanding fodder for camels) and *Zygophyllum waterlotii*. Near the coast, halophytic species appear, such as *Arthrocnemum macrostachyum*, *Atriplex halimus*, *Sacocornia perennis* and *Suaeda* spp. The coastal area is a strange system of about 450 square kilometres of pools that sometimes appear above the surface, with vast areas of *Cymodocea nodosa*, *Zostera noltii* and more rarely *Halodule wightii*. There is also a relic mangrove of *Avicenia africana* at Nord Tidra and Cap Timiris.

#### 17. Noteworthy flora:

In the continental part of the Parc National du Banc d'Arguin, there are no noteworthy species, but there is a rather complete panorama of Saharan desert flora (more than 170 species). The most remarkable aspect of the flora of the national park is the relic mangrove of *Avicenia africana* that still exists at Cap Timiris and north of Tidra Island. Located at the northern limit of its range, this formation is probably a relic of a former estuary in this area. The mangrove has slowly adapted to environments more and more salty, often hyper saline (greater than 50 per cent), and it survives well although the areas are smaller and less dense than similar mangroves located farther south.

#### 18. Noteworthy fauna:

Birdlife: This is the most visible aspect of the biodiversity of the Parc National du Banc d'Arguin, of which there are migrating species and nesting species. The Palaearctic migrating species are mostly small shorebirds (*bécasseaux*, *gravelots*, *pluviers*, *courlis*, *chevaliers*, *tournepierres*). Coming from northern Europe, even from Siberia, there are more than 2,300,000 birds that winter here every year on the island near the pools in the park. There are colonies of nesting birds, sea birds (sterns, cormorants, sea gulls) and the larger waders (aigrettes, flamingos, herons, spoonbills), about 40,000 pairs, live year round in the park where they breed. Several populations have become established in the park all year round. Two species are endemic: the pale heron (*Ardea cinerea monicae*) and the white spoonbill found in the park (*Platalea leucorodia balsaci*). This species and the stern hansel (*Gelochelidon nilotica*) are highly endangered at the world level.

Land fauna: Land fauna are not abundant and are represented mostly by the jerboa, the gerbil, rats and carnivores of which the golden jackal (abundant and growing), the pale fox, the fennec, the striped hyena and, even rarer, several Felidae. There is a relic population of the Dorcas gazelle, a species that was almost eliminated in Mauritania by poaching and drought.

Marine fauna: There is a high degree of marine biodiversity. The Banc d'Arguin is a breeding area for a large number of fish and selachians and a feeding area for many species of fish, marine turtles, including the green turtle (*Chelonia midas*) and marine mammals including the monk seal (*Monachus monachus*), one of the 12 most endangered animal species in the world. The monk seal is found at Cap Blanc outside the park, but its protection is provided by the park through the associated reserve at Cap Blanc. Among the seven species of dauphins recorded, there are two coastal species, the bottle-nosed dolphin (*Tursiops truncatus*) and the Guinea dolphin (*Souza teuszii*). There are also the common porpoise (*Phocoena phocoena*) and two pilot whales (*Globicephala melaena* and *G. macrorhynchus*).

#### **19. Social and cultural values:**

Natural resources: The resident inhabitants (Imraguen), living in eight coastal villages, are primarily fishermen. The park regulations guarantee them exclusive access to the fishing resources in exchange for their respect of conservation needs and sustainable use (prohibition of the use of motors, prior authorization for the introduction of any new fishing techniques). The *mulet* (*Mugil* spp.), the traditional object of fishing, has been replaced by selachians at the beginning of the 1990s (opening of the market for fins in Southeast Asia). Because of a risk of overexploitation, management measures adopted in agreement with fishermen were put in place in 1999.

The grazing areas in the park are used by nomad herders coming from the east. More abundant rainfall since 1998 could lead to a significant increase in this movement.

Cultural importance: The national park has many archaeological sites, especially Neolithic, which are now being surveyed. Arguin Island, in the north, and the surrounding coast (Côte de la Gomme) have been the site of a series of European occupations since the end of the seventeenth century (Portuguese, Dutch, English, Prussian, French) of which only the ruins of Fort d'Arguin are the only vestige. In the nineteenth century, the fisheries attracted many processors, from the Canary Islands and France, who tried to establish processing plants there.

#### **20. Land tenure/ownership of:**

All of the park and the surrounding areas are in the public domain.

#### **21. Current land use:**

At the site: Eight villages along the coast inhabited by about 1400 Imraguen who live exclusively from fishing. In the eastern portion of the park, there is transhumance of

camel herds in the search for pasture.

In the surrounding area: There is transhumance of camel herds in the search for pasture. There are more and more concessions granted for prospecting for minerals.

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

At the site: There has been an unfavourable climate since the long droughts of the 1970s and little rainfall. The eight Imraguen villages have a total population of approximately 1400 persons. The total absence of freshwater is the main limiting factor. The populations are supplied either by the navy or by traders who often charge excessively. The national park is building two desalination plants at Ten-Alloul, with a capacity each of 12 cubic metres per day.

In the surrounding area: The situation is similar. There is also a large increase in mining concessions east of the park, especially for gold, with the resulting risks tied to the use of mercury, especially during the mining and processing phases and excessive pumping of water from the groundwater.

**23. Conservation measures taken:**

The national park is a public management agency directly attached to the Secrétariat Général du Gouvernement (Primature). The park boundaries, fixed by the initial decree in 1976, have never changed, except slightly at the time of the delimitation of the boundaries in 1995-1996.

The main conservation measures: The national park has a master management plan approved by the government in 1995. It prohibits fishing within the park, except by resident Imraguen, the use of engines for fishing by Imraguens, except for scientific research and transportation of persons, the use of generators, except wind and solar generators, access to cold transportation and commercial tourism.

A system of marine monitoring has been in place since October 1998 (three small boats and three radar stations) operated by the Délégation à la surveillance des pêches et au contrôle en mer (DSPCM—Ministère des Pêches et de l'Economie Maritime) and the local inhabitants. A community development programme has been active since 1994 in the fields of sanitation, health, alphabetisation, the formation of cooperatives, women's activities, etc.

A new law on the Parc National du Banc d'Arguin replacing the 1976 decree should be presented to the National Assembly during the summer. It would give the park administration a set of regulatory tools, lacking at the present time, in order to better implement the provisions of the master plan.

**24. Conservation measures proposed but not yet implemented:**

Preparation of a zoning plan and creation of a buffer area south of the park.

Recruitment of a park director responsible for the coordination of monitoring of the park.

Creation of land patrols using dune buggies and ultralight airplanes, in cooperation with the national guard.

#### **25. Current scientific research and facilities:**

Evaluation of fishing resources in the park (in cooperation with the Centre National de Recherches en Océanographie et des Pêches, CNROP and the Science Faculty of the University of Nouakchott). At the present time, there is an indirect survey through sampling of fish caught by the Imraguen, based on a network of surveyors in each village. There is a specific project for rays and sharks (fisheries and biology). The direct portion of this survey should begin in 1999, with financing from French technical assistance.

Ornithology: Survey of colonies of nesting birds and Palaearctic waders. There is a project for specifically studying two species of white spoonbill with funds from the Fondation Internationale du Banc d'Arguin and the Netherlands.

Marine mammals: Project for monitoring the monk seal at Cap Blanc in cooperation with the CNROP and the University of Barcelona (with financing from the LIFE/European Union for which a new project was submitted in 2000). There is also a survey of small whales in the park financed by the Spanish government. Plans are under way to build a multi-disciplinary platform for the study of the functioning of the Banc d'Arguin ecosystem.

The national park has two bases, one at Mamghar and the other at Iwik (see the attached maps), which offer the possibility for housing and the storage of material. Rehabilitation of the Iwik station is planned with existing funds and the acquisition or renovation of basic field material (boats, engines, weighing equipment, binoculars, telescopes and microscopes).

#### **26. Current conservation education:**

This consideration has not been dealt with until now, but a certain number of projects in this sense are at various stages of preparation (brochures, travelling exhibits, guides). Education and awareness promotion will be one of the fundamental emphasis of the ecotourism strategy.

#### **27. Current recreation and tourism:**

The national park is not open to local tourism; residents of Nouakchott who want to spend two or three days there. Camping is authorized only at Cap Tafari, north of the point, and recreational fishing is authorized for local personal consumption up to a maximum of five kilos per day per person. All forms of commercial tourism are prohibited. The administration of the national park is preparing a development strategy for ecotourism in the Parc National du Banc d'Arguin, that has already been studied by

two missions of experts and will be submitted to the government before the end of 1999.

**28. Jurisdiction:**

Territorial jurisdiction is the responsibility of the Mauritanian government, and the Secrétariat Général du Gouvernement (the Prime Minister and the President) are administratively responsible for this area.

**29. Management authority:**

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**30. Bibliographical references:**