

Information Sheet on Ramsar Wetlands

1. **Date this sheet was completed/updated:** 16 October 1997

2. **Country:** Ecuador

3. **Name of wetland:** Parque Nacional Machalilla

4. **Geographical coordinates:**

1 00' South latitude - 80 45' West longitude

5. **Altitude:** sea level

6. **Area:** 18,700 hectares

7. **Overview:** The wetlands in the Machalilla National Park are shallow saltwater marshes with sand and pebble beaches, seasonal streams, islands and salt flats. There are also small areas of coral reefs, especially around the island of La Plata. This island deserves special attention, because it is an important site for breeding and nesting colonies of unique marine birds such as *Diomedea irrorata* and *Sula sula*.

8. **Wetland type:** A, B, C, D, E

9. **Ramsar criteria:** 2a, 2c, 2d

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:**

The wetlands of the Machalilla National Park are part of a chain of wetlands along the Pacific coast from Canada to Chile used by migrating shore birds, which use the intertidal zone of the beaches as a stop for feeding and resting. For this reason, the wetlands form part of an ecological corridor. A special part of this wetland is the island of La Plata, a breeding site for rare marine birds such as the *Diomedea irrorata*, *Fregata magnificens*, *Sula nebouxii* and *Sula sula*.

13. **General location:**

The Machalilla National Park is located on the central Ecuadorean coast in Manabí province. The closest town is Puerto López where the administrative office for the park is located.

14. **Physical features:**

The climate of the wetland is defined by its position on the Equator, the influence of the marine currents and by the presence of coastal hills. The climate is hot and dry. Average annual temperature is 24 C, with an average annual rainfall of 424 mm. The hydrographical system is formed by six basins with seasonal rivers that dry up in the dry season. The exception is the Río Ayampe, which has water year round. The island of La Plata is formed on a base of volcanic rock similar to basalt. On the hills, it is possible to find sedimentary rocks and sandstone with iron quartz, which contain many marine fossils.

15. Hydrological values:

The sea water in the Machalilla National Park is oligotrophic, providing a habitat for a high diversity of marine organisms, especially phyto and zooplankton and aquatic invertebrates, which are the basic elements of the food chain. As a result, this wetland is a habitat for the reproduction of fish, thus permitting the presence of nesting colonies of marine birds.

16. Ecological features:

The two main habitats of the Machalilla National Park are shallow salt water with coral reefs and, on the continent, dry tropical forest, characterised by small trees, shrubs and cacti.

17. Noteworthy flora:

The main species of flora of the tropical dry forest are *Bursera graveolens*, *Ceiba pentandra*, *Cordia alliodora*, *Cordia lutea*, *Jacquinia pubescens*, *Ochroma pyramidale* and *Triplaris guayaquilensis*.

18. Noteworthy fauna:

The main species of fauna are *Diomedea irrorata*, *Fregata magnificens*, *Lepidochelys olivacea*, *Megaptera novaeangliae*, *Phaeton aethereus*, *Sula dactylatra*, *Sula nebouxii*, *Sula sula* and many species of fish, some of which are important commercially.

19. Social and cultural values:

The main human culture in the park was the Manteña, important during Ecuadorean prehistory (700-1526 A.D.). The most important archaeological area is in the commune of Agua Blanca. In this area, it is possible to find ceramic artifacts and large stone architectural constructions. One of the most important characteristics of the Manteña culture is stone seats in the form of a U, which are symbols of power.

20. Land tenure/ownership of:

The Machalilla National Park belongs to the government and is part of the Patrimonio Nacional de Areas Naturales.

Nonetheless, within the park there are small settlements that date from before the creation of the park. Outside the park, the land is communal or private property.

21. Current land use:

The land in the park and the surrounding area has several uses. The main use is for natural and artificial pastures, followed by permanent or annual crops. The main crop is maize, then yucca, tomato, banana and coffee. The area within the park used for these crops represents a small percentage of the total area and has no significant environmental impact on the wetlands.

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

Ecological conditions in the Machalilla National Park can be affected by the following potential sources of pollution:

- A fish meal processing plant
- Petroleum waste discharged in the sea
- An accumulation of solid waste

23. Conservation measures taken:

A basic management plan was prepared for the Machalilla National Park in 1987. A management plan for tourism has been in effect since 1996.

24. Conservation measures proposed but not yet implemented:

A new management plan for the park is being prepared and should come into effect in mid-1998.

25. Current scientific research and facilities:

The following long and medium-term research is being carried out in the park.

- A project that is part of the "Parques en Peligro" programme with four components: water quality in the marine area, monitoring of the coral reefs, protection and monitoring of marine turtles and monitoring of vegetation
- Demographic studies of the humpback whale (*Megaptera novaeangliae*)

The park has no infrastructure specific for scientific research.

26. Current conservation education:

Currently, there is no systematic programme for environmental education covering the wetlands in the park, although events are often organised for schools and local communities. There

is a visitors' centre, where there are exhibits of fauna, flora and archaeological artifacts.

27. Current recreation and tourism:

Several tourist agencies operate in the park, especially in the wetland. About 20,000 tourists visited the park in 1996, and this number has increased slowly during the following years. Almost all visitors go to the beaches in the park, although some visitors spend their time on the water and a few visit the island of La Plata. Recently, there has been great interest in observing whales as a tourist activity.

28. Jurisdiction:

The Machalilla National Park is located in Manabí province and is, therefore, within the territorial jurisdiction of the provincial council of that province. The administrative authority for the park is the Instituto Ecuatoriano Forestal y de Areas Naturales y Vida Silvestre (INEFAN).

29. Management authority:

The management authority for the wetland is the Dirección Nacional de Areas Naturales y Vida Silvestre of INEFAN, through the Machalilla National Park administration (Fax: [593 5] 604 170).

30. Bibliographical references: