

Information Sheet on Ramsar Wetlands

Translation of original Information sheet by Charles Akin
(August 2000)

1. **Date this sheet was completed/updated:** 17 March 1999

2. **Country:** Costa Rica

3. **Name of wetland:** Laguna Respringue

4. **Geographical coordinates:**

10 51' 38" North latitude

85 51' 18" West longitude

5. **Altitude:** Sea level

6. **Area:** 75 hectares of wetland

7. **Overview:** This wetland is a freshwater lake formed on eroded alluvial soils by runoff from the valley and nearby hills, combined with material typical of the coastal area. The flat area is protected by a pebble bar, which acts as a barrier against the large waves that created these rocks. This wetland covers approximately 75 hectares and is the only coastal freshwater swamp on all of the northern Pacific Coast of Costa Rica. The dominant vegetation in several hectares in the centre of the lake is monospecific. It grows to a height of 2 to 3 metres and is a rare grass (zacate) (*Phragmites australis*). Toward the western side of the lake, there is a small herbaceous aquatic plant.

8. **Wetland type:** Marine and coastal K (coastal freshwater lake)

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

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:**

It is the only freshwater coastal lagoon known on the northern Pacific coast of Costa Rica. Although there is no precise biological information available, its importance is clear, given that this is the driest region in Costa Rica. Other freshwater lakes and swamps are specific to the rain forest and humid climates, but this is clearly a very different ecosystem. A very important point is that it has been preserved because of the difficulty of access, and there has been very little alteration by human presence.

13. General location:

Located in northwestern Costa Rica in the province of Guanacaste, on the Santa Elena Peninsula, canton de La Cruz, District of Santa Elena. It is approximately 60 kilometres due north of the city of Liberia.

14. Physical features:

This is an almost flat and concave area of about 75 hectares formed on eroded soils from the surrounding valleys and hills. These soils were mixed with beach sand and formed this point together with the action of the waves and currents around Isla Colorada. This region is at the oldest site in Central America, estimated to be between 88 and 200 million years old and formed by partially serpentine peridotites.

The Santa Elena peninsula, almost completely formed by 300 square kilometres of peridotites that break the surface, have been interpreted to be an ex situ layer in a stratum over an in situ sedimentary deposit. There is a thick volcanic mass without sedimentary intrusions in the eastern part of the in situ layer (Tournon and Alvarado 1997).

The climate is the driest in Costa Rica with the lowest precipitations with averages ranging between 900 to 1000 mm. Trade winds blow in this region from November to March and have created sand dunes that are higher and larger than any on all of the Guanacaste coast. These dunes are in pristine condition and clearly show interaction between the coastal forest and the sand.

15. Hydrological values:

This lagoon plays a very important role in capturing sediments produced by erosion from the surrounding hills.

16. Ecological features:

Laguna de Punta Respringue is a unique ecosystem that has not been studied. Although information about it is scarce, several areas of the wetland have been identified. In approximately one hectare in the centre, a herbaceous aquatic plant has been identified. In the surrounding area, there is *Phragmites australis*.

In general, the biota of this ecosystem is completely unknown, but because of the conditions at this site, it can be predicted that it has species restricted to this lagoon.

17. Noteworthy flora:

The most common plant species in this swampy lagoon is *Phragmites australis* and another herbaceous aquatic plant that grows in the deepest part at the centre of the lake that has not been collected or identified.

18. Noteworthy fauna:

No information is available on the fauna.

19. Social and cultural values:

Not applicable

20. Land tenure/ownership of:

This wetland is on private property that is currently being expropriated for integration into the Guanacaste Conservation Area.

21. Current land use:

The land has no current use, and there is no use at the lagoon or in the surrounding area.

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

More than 30 years ago, the surrounding area was used for agriculture and the extraction of timber and there were houses and roads for this and a small dock for loading wood. All of this area is now subject to conservation.

23. Conservation measures taken:

In Costa Rica, all wetlands are protected by the Organic Environmental Law. Furthermore, they have been declared of public interest, limiting the use of resources within the wetland and prohibiting the construction of infrastructure that harms the wetland's ecosystems.

24. Conservation measures proposed but not yet implemented:

There are no specific conservation measures for this swampy lagoon, but there are measures planned for a much more important area in the ACG, which must be studied in order to understand this intricate, important and unique ecosystem.

25. Current scientific research and facilities:

There is no research or infrastructure in Laguna Respringue.

26. Current conservation education:

In the Guanacaste Conservation Area (ACG), there is a programme for biological education that includes information about wetlands among other biological themes. One of the objectives of the Guanacaste Conservation Area is to develop and strengthen awareness and understanding in school children about nature (bio-alphabetization). The project is now working with 42 primary schools and 6 secondary schools in the region. More than 2200 children have the opportunity to observe and understand through direct contact with nature and biology, in order to understand the environment.

27. Current recreation and tourism:

There is no tourism at the site.

28. Jurisdiction:

Laguna Respringue is in the province of Guanacaste, canton of La Cruz, district of Santa Elena. Administrative jurisdiction is the responsibility of the Ministerio del Ambiente y Energía (MINAE) and the Sistema Nacional de Areas Protegidas (SINAC) as part of the Guanacaste Conservation Area.

29. Management authority:

Area de Conservación Guanacaste (SINAC-MINAE)
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30. Bibliographical references: There are no specific studies on this wetland.