

RAMSAR WETLANDS INFORMATION SHEET

please note: This has been typed out from handwritten forms without any grammatical corrections.

1. **Country:** Portugal
2. **Date:** 5-11-92
3. **Ref:** 7PT002
4. **Name and address of compiler:**
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5. **Name of wetland:** Ria Formosa
6. **Date of Ramsar designation** 24/11/1980
7. **Geographical coordinates:** 37°01'N 007°48'W
8. **General location: (e.g. administrative region and nearest large town)**
Algarve, South Portugal, facing Faro, Olhão and Tavira.
9. **Area: (in hectares)**

ca 16,000 hectares
10. **Wetland type: (see attached classification, also approved by Montreux Rec. C.4.7)**

A, E, G, H, M, S, 1, 3, 5
11. **Altitude: (average and/or maximum & minimum)**

Maximum 25 m
12. **Overview: (general summary in two or three sentences of the wetland's principle characteristics)**

Saltwater lagoon with vast expanses of sediments exposed at low tide. The system is separated from the sea by a narrow line of flat and elongated barrier islands with vegetated sand dunes. There is no major river basin upstream. Freshwater inputs are irregular and mostly torrential.
13. **Physical features: (e.g. geology; geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth; water permanence; fluctuations in water level: tidal variations; catchment areas; downstream area; climate)**

Vast natural area of sedimentary origin, mostly created and shaped by tidal influences, wind and sea currents. Sandy sediments dominate, but there are also vast tidal mudflats. Water quality still fairly good, but there is occasionally some contamination by untreated sewage effluents. There are also some cases of saltwater contamination into the water table underground, probably related to excessive water pumping for irrigation and human

consumption.

14. Ecological features: (main habitats and vegetation types)

Tidal land and mudflats in the lagoon shallow seawater inside the lagoon and extensive sandy shores on the sea front; elongated in-line barrier islands with low-lying sand dunes and psamophilous(?) vegetation; tidal saltmarshes and submerged beds of eel grass (*Zostera*) inside the lagoon; salinas and salt pans; remnants of pine forest with herbaceous undergrowth on sandy soils inshore; freshwater streams bordered with reed mace (*Typha*) and other herbaceous vegetation; agricultural and urban areas, including many tourist resorts.

15. Land tenure/ownership of:

(a) site:

Most of the wetland and seashore areas are public and owned by the state.

(b) surrounding areas:

the agricultural areas and salt extraction/fish farming complexes are privately owned

16. Conservation measures taken: (national category and legal status of protected areas - including any boundary changes which have been made; management practices; whether an officially approved management plan exists and whether it has been implemented)

The area is a Nature Reserve under Portuguese law and there is an officially approved management plan. The area is also a Special Protection Area under Article 4 of the EC Birds Directive.

17. Conservation measures proposed but not yet implemented: (e.g. management plan in preparation; officially proposed as a protected area etc.)

18. Current land use: principal human activities in:

(a) site:

Fisheries and shellfish exploitation (collecting and farming); tourism and tourist related activities; agriculture (traditional being replaced in many areas by intensive).

(b) surrounding/catchments:

Agriculture (both traditional and intensive).

Tourism related activities eventually dominate during the summer months.

19. Disturbances/threats, including changes in land use and major development projects: (factors which may have a negative impact on the ecological character of the wetland)

(a) at the site:

Excessive direct human pressure at some important conservation sites, mostly during the holiday season (June-September). High pressure to build more and more tourist

infrastructures in the area (housing, golf courses, marines, new airport strip, road development, etc.) Conversion of remaining salt farms into fish farms

(b) surroundings/catchment

The same type of pressure but in a much bigger scale.

20. Hydrological and physical values: (groundwater recharge, flood control, sediment trapping, shoreline stabilization etc.)

The sand dune belt is extremely important for shoreline stabilisation and for protection of the urban areas inland.

21. Social and cultural values: (e.g. fisheries production, forestry, religious importance, archaeological site etc.)

Very important fisheries and shellfish productions come from this area. Extremely popular summer resort area (equally important to nationals and foreign visitors)

There are important archaeological sites in the area (Roman and Arabic)

22. Noteworthy fauna: (e.g. unique, rare, endangered, abundant or biogeographically important species; include count data etc.)

The area is a key overwintering/migration stopover site in Portugal to the following birds: *Limosa limosa*, *Calidris minutae*, *C. canutus*, *Charadrius hiaticula*, *C. alexandrinus* and *Himantopus himantopus*

The site is also a key breeding site to the little egret *Egretta garzetta*, the purple gallinule *Porphyrio porphyrio*, the black winged stilt *Himantopus himantopus*, the avocet *Recurvirostra avosetta*, the Kentish plover *Charadrius alexandrinus*, the stone curlew *Burhinus oedipnemos* and the little tern *Sterna albifrons*

23. Noteworthy flora: (e.g. unique, rare, endangered, or biogeographically important species/communities etc.)

This is an important botanic area, holding several endemic plants.

24. Current scientific research and facilities: (e.g. details of current projects; existence of field station etc.)

Several field projects are currently underway in this area. Field station and adequate facilities are available locally

25. Current conservation education: (e.g. visitor centers, hides, information booklet, facilities for school visits etc.)

Basic adequate information and other facilities for conservation education and visitors are available and in use locally.

26. Recreation and tourism: (state if wetland used for recreation/tourism; indicate type & frequency/intensity)

The area is heavily used for recreational and tourism, with large numbers of nationals and foreign visitors moving in for holidays, especially during the summer months.

27. Management authority: (name and address of body responsible for managing the wetland)

No single management authority. There is a complex network of sectoral legislation and competences, shared among several ministries

28. Jurisdiction: (territorial e.g. state/region and functional e.g. Dept of Agriculture/Dept of Environment etc.)

Most of the seashore and wetland areas are public and state owned, except for the salinas and many fish farms which are private. The agricultural land is mostly private.

29. Bibliographical references: (scientific/technical only)

- CEMPA midwinter wader and waterfowl counts (1976 to 1992)
- The Portuguese Atlas of breeding birds (R. Rufino/CEMPA)
- other

30. Reasons for inclusion: (state which Ramsar criteria - as adopted by Rec.C.4.15 of the Montreux Conference - are applicable)

Rio Formosa is a major wetland in south Portugal, holding most important flora and habitats for wild birds and other fauna.