

Information Sheet on Ramsar Wetlands

Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties.

NOTE: It is important that you read the accompanying *Explanatory Note and Guidelines* document before completing this form.

1. Date this sheet was completed/updated:

30 November 1998

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Designation date

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Site Reference Number

2. Country: Italy

3. Name of wetland: "Stagno di Molentargius"

4. Geographical coordinates: 39°14'N 009°09'E

5. Altitude: (average and/or max. & min.)

6. Area: 1,401 hectares

7. Overview: (general summary, in two or three sentences, of the wetland's principal characteristics)

It is a representative example of a near-natural wetland, characteristic of Mediterranean biogeographical region. This wetland is a typical saline lagoon with a relatively narrow connection to the sea. It includes a retry dune system, utilised as salt exploitation. It supports a good assemblage of rare, vulnerable and endangered species of plants or animals.

8. Wetland Type (please circle the applicable codes for wetland types as listed in Annex I of the *Explanatory Note and Guidelines* document.)

marine-coastal: A . B . C . D . E . F . G . H . I . **J** . K

inland: L . M . N . O . P . Q . R . Sp . Ss . Tp . Ts
. U . Va . Vt . W . Xf . Xp . Y . Zg . Zk

man-made: 1 . 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9

Please now rank these wetland types by listing them from the most to the least dominant:

9. Ramsar Criteria: (please circle the applicable criteria; see point 12, next page.)

1a . 1b . 1c . 1d | **2a** . 2b . 2c . 2d | 3a . 3b . 3c | 4a . 4b

Please specify the most significant criterion applicable to the site:

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

(Please refer to the *Explanatory Note and Guidelines* document for information regarding desirable map traits).

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

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Please provide additional information on each of the following categories by attaching extra pages (please limit extra pages to no more than 10):

12. Justification of the criteria selected under point 9, on previous page. (Please refer to Annex II in the *Explanatory Note and Guidelines* document).

It supports an important number of rare or endangered species of animals (over 55 endangered bird species), with many number specimens (over 10.000 birds).

13. General location: (include the nearest large town and its administrative region)

It is located in the South of Sardinia Region, close to the Chief Towns of the Region, CAGLIARI. This land belongs to QUARTU SANTELENA and QUARTUCCIU.

14. 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 area; downstream area; climate)

It is divided into three parts: 1)"Bellarosa Minore", which is a natural area receiving freshwater by three water-course. 2)"Saline di Stato", which is a system of evaporation tank for the salt exploitation, and receives water-sea by a artificial connection to the sea. 3) "Stagno di Quartu", which is a system of evaporation tank too.

This wetland is in the south of Campidano trough, originated from fluvial erosion (sea regression and sea intrusion) and by subsidence of Tirreniana platform in the Quaternary. This depression is filled up by marine intrusion and separated to the sea via a littoral cordon. The platform is constituted of one 5-m depth Miocenic carbonaceous sandstone bed (Saline di Stato and Stagno di Quartu) or siliceous stones rest on plastic clay bed (Bellarosa Minore).

15. Hydrological values: (groundwater recharge, flood control, sediment trapping, shoreline stabilisation etc)

The waters of Bellarossa Minore are brackish, while the waters of the two other areas are hypersalinity. The towns, Cagliari and Quartu, close to the wetland, discharge part of their foul water into Bellarossa Minore therefore it is polluted.

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

- Iberia halo-nitrophilous scrubs. It is a halo nitrofilus scrubs typical of dry soils under arid climates. Plants: Atriplex halimus.
- Riparian galleries (Nerio-Tamariceteae). Plants: Tamarix africana, T. canariensis, T. gallica, T. dalmatica, T. nilotica.
- Embryonic shifting dunes. It is an example of the first stages of dune construction, constituted by raised sand surfaces of the upper beach. Plants: Agropyrum junceum, Ammophyla arenaria, Anthemis maritima.
- Coastal lagoons. It is characterised by varying salinity and water volume, partially separated from the sea by sandbanks. Salinity may vary from brackish water to hypersalinity depending on rainfall, evaporation and the addition of fresh seawater. Plants: Lemna minor, Cladophora sp., Myriophyllum spicatum, Lemna gibba, Potamogeton pectinatus, Entheromorfa intestinalis, Phragmites australis, Typha angustifolia, Sparganium erectum, Apium nodiflorum, Conium maculatum, Mentha pulegium, Calystegia sepium.
- Vegetated sea cliffs of the Mediterranean coasts with endemic Limonium sp. It is a vegetated cliffs and rocky shores of the Mediterranean. Plants: Limonium virgatum, Lycium europaeum, Limonium glomeratum.
- Mediterranean salt meadows: It consist of various Mediterranean communities. Plants: tall rush saltmarshes dominated by Juncus acutus; Mediterranean halo-psammophile meadows dominate by

Plantago crassifolia, Spergularia marina, Ornithogalum pyramidale, Leopoldia comosa; medium-tall Juncus subulatus beds.

- Mediterranean halophilous scrubs: it is characterised by perennial vegetation of marine saline muds mainly composed by scrubs. Plants: Sarcocornia fruticosa, Arthrocnemum fruticosum, Arthrocnemum glaucum.
 - Mediterranean halo nitrophilous pioneer communities. It is a formations of annuals plants colonizing salt muds, susceptible to temporary inundation and extreme drying. Plants: Frankenion pulverulenta, Salsola soda, Parapholis incurva, Parapholis strigosa, Hordeum marinum.
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17. Noteworthy flora: (indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc)

Polygonum scoparium, schizoendemism produced by P. equeisetiforme cycle.

Stachys glutinosa, paleoendemism.

Limonium dubium, "tirrenico sardo-corso" endemic.

Limonium densiflorum, Corsica-Sicily-Algeria e Sardinia subendemism.

Limonium glomeratum, endemoviciariante species.

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

Hyla sarda: endemic specie.

Emys orbicularis: endangered specie.

Testudo hermanni: endemic specie.

Tachybaptus ruficollis: endangered specie, over 200 specimens.

Podiceps cristatus: very endangered specie, over 30 specimens.

Podiceps nigricollis: very endangered specie, over 200 specimens.

Phalacrocorax carbo: abundant specie, over 500 specimens.

Phalacrocorax aristotelis: endangered specie, few specimens.

Botaurus stellaris: rare and very endangered specie, few specimens.

Ixobrychus minutus: rare and very endangered specie, few specimens.

Bubulcus ibis: very endangered specie, over 20 specimens.

Egretta garzetta: endangered specie, over 80 specimens.

Egretta alba: endangered specie, over 10 specimens.

Ardea cinerea: endangered specie, over 100 specimens.

Plegadis falcinellus: endangered specie, few specimens.

Platalea leucorodia: endangered specie, over 10 specimens.

Phoenicopterus ruber: very endangered specie (site very important for the nest building), over 2000 specimens

Anser anser: over 10 specimens (site important for the migration).

Tadorna tadorna: very endangered specie, over 20 specimens (site important site for nest building).

Anas penelope: endangered specie, over 20 specimens.

Anas strepera: endangered specie, over 30 specimens.

Anas crecca: endangered specie, over 50 specimens.

Anas platyrhynchos: over 200 specimens (site important for the migration).

Anas acuta: endangered specie, over 20 specimens.

Anas querquedula: rare and very endangered specie, few specimens.

Anas clypeata: endangered specie, over 1000 specimens.

Netta rufina: rare and very endangered specie, few specimens.

Aythya ferina: rare and very endangered specie, over 1000 specimens.

Aythya nyroca: rare and very endangered specie, few specimens.

Aythya fuligula: endangered specie, over 150 specimens.

Mergus serrator: endangered specie, few specimens.

Circus aeruginosus: endangered specie, over 20 specimens.
Pandion haliaetus: rare and very endangered specie, few specimens.
Rallus aquaticus: endangered specie, few specimens.
Gallinula chloropus: abundant specie, over 150 specimens.
Porphyrio porphyrio: rare in Europe, very endangered specie, over 20 specimens (site important for nest building).
Fulica atra: abundant specie, over 1.000 specimens.
Himantopus himantopus: very endangered specie, over 100 specimens, (important site for nest building).
Recurvirostra avosetta: rare in Europe, very endangered specie, over 50 specimens (site important for nest building).
Glareola pratincola: rare and very endangered specie, few specimens (site important for nest building).
Charadrius dubius: endangered specie, few specimens.
Charadrius alexandrinus: endangered specie, over 20 specimens.
Pluvialis squatarola: endangered specie, few specimens.
Gallinago gallinago: over 15 specimens (site important for the migration).
Limosa limosa: endangered specie, over 20 specimens.
Numenius arquata: endangered specie, over 10 specimens.
Tringa totanus: very endangered specie, over 20 specimens (site important for nest-building)
Tringa nebularia: endangered specie, over 10 specimens.
Actitis hypoleucos: endangered specie, c specimens.
Larus ridibundus: abundant specie, over 1.000 specimens.
Larus genei: endangered specie, over 100 specimens.
Larus audouinii: rare and very endangered specie, over 20 specimens.
Larus cachinnans: abundant species, over 200 specimens.
Sterna sandvicensis: rare and very endangered specie, over 30 specimens (site important for nest-building).
Sterna hirundo: very endangered specie, few specimens (site important for nest-building).
Sterna albifrons: very endangered specie, few specimens, (site important for nest-building).
Chlidonias niger: rare and very endangered specie, few specimens (site important for nest-building).
Alcedo atthis: endangered specie, over 10 specimens.
Coracias garrulus: very endangered specie, few specimens.

19. Social and cultural values: (e.g. fisheries production, forestry, religious importance, archaeological site etc.)
Over 2000 tourist for year round visits this site; the tourist are attracted by importance and the beauties of the fauna. It is also utilised for the salt exploitation since the Roman Empire.

20. Land tenure/ownership of: (a) site (b) surrounding area

21. Current land use: (a) site (b) surroundings/catchment

a) The principal human activities in this wetland are: the salt exploitation, outdoor recreation, education and scientific research. Around the wetland there are the two bigger Town of the Sardinia, Cagliari and Quartu, in this area live a population of over 600.000 people.

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

a) The principal problems that affecting the site's ecological character are: the disused of the salt exploitation; an excessive human disturbance; the construction of the new buildings or the new road, the water supply for domestic and industrial use, and etc.

- b) The principal problems that affecting the ecological character of the area around the site are: an increment of the industrialization, the construction of the new buildings or the new road, the used of chemical pollutants in agriculture.
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23. 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)

Since 1998, the Sardinian Region has founded in this wetland a Regional Park that is administrate by a Council of three communes (CAGLIARI, QUARTU SANT'ELENA and QUARTUCCIU).

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

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

26. Current conservation education: (e.g. visitors centre, hides, information booklet, facilities for school visits etc.)

27. Current recreation and tourism: (state if wetland is used for recreation/tourism; indicate type and frequency/intensity)

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

CAGLIARI, QUARTU SANT'ELENA and QUARTUCCIU

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

Council of three communes (CAGLIARI, QUARTU SANT'ELENA and QUARTUCCIU).

30. Bibliographical references: (scientific/technical only)

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