

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:

11.11.98

For office use only.

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04/09/81

7IT029

Designation date

Site Reference Number

2. Country:

Italy

3. Name of wetland:

Gorino Valley

4. Geographical coordinates:

44° 48' North; 12° 21' East

5. Altitude: average 1 m a.s.l. (max. 6/min -2)

6. Area: (in hectares) 1,330 ha

7. Overview:

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

Large marine sac partially isolated from the sea by a long stretch of dune (Scannone di Goro) which proceeds from the river mouth westwards towards the Lido di Volano. The Lido was formed over the past two centuries by sediment deposits transported to the mouth from the Goro Po. The part nearest the mouth, with fresher waters, is extensively covered by reed beds of *Phragmites australis*, whilst the salinity in the central part is similar to that of open sea water.

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:

A, K, J, E, B, H, G

9. Ramsar Criteria:

 (please circle the applicable criteria; see point 12, next page.)

1a - lb - 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* X

(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:

Massimiliano Costa – Regional Park of the Po Delta.
Giuliana Venturi – Emilia-Romagna Region.

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)

Gorino Valley is a rare example of an open marine sac, separated from the sea by a “seat” originating from deposits from the Goro Po. There is a well preserved continually changing active stretch of dunes, giving rise to new sand barriers in the sea. The river mouth represents a fundamental environment for the Goro Po, for which it represents a reservoir of biodiversity, and for the coastal lagoon system of the north Adriatic. The area hosts a large number of rare fauna and flora species, with representative populations at a national level and unilocular species at a regional level which find ideal habitats for breeding, resting during migration and feeding. There are several endemic species present. There are more than 20,000 aquatic birds regularly present and in particular important populations of Ciconiiformes, Anatidae, Accipitriformes, Charadriidae, Sternidae. Numerous endemic fish species are present. The river mouth permits entry to anadromous fish species and movement of euryhaline species, whilst the sac is very important for the growth of newborn and sub-adult specimens, also of rare and threatened species.

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

The area runs along the border between the Emilia-Romagna and Veneto Regions, at approximately 80 km from Ferrara (main Provincial city) and a few kilometres from Goro (main Municipal town). The town of Gorino is next to the site boundary.

14. Physical features: (e.g. geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth; water permanence; fluctuation in water level; tidal variations; catchment area; downstream area; climate)

Marine sac originating from deposits from the Goro Po which partially separate it from the sea. The deposits are mainly sandy in the part towards the sea and silty in the internal parts where there is less current. Water is continually present. Fresh water comes from the Goro Po (from the river mouth and from intakes which have opened along the course) and from the Volano Po, whilst salt water is from the sea, with tidal variations and drying-up of coastal pools during the summer. The waters of the Po tributaries coming from within the Padana plain are of very poor quality, above all in the summer, and cause eutrophic conditions in the sac.

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

The area has an important role in protecting the coastline from erosion, especially where the river mouth is left to freely evolve and form new sand banks by continuously depositing sand and silt.

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

There are three dominant habitats: the open brackish waters of the sac with formations of *Gracilaria* sp. and meadows of *Ruppia cirrhosa*, the reed beds of *Phragmites australis*, the sandy bank with all the typical vegetation associations of coastal dunes. Behind the bank there are coastal pools, mud flats and formations of *Scirpus maritimus* and other halophile species.

17. Noteworthy flora: (indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc.)

Only one species contained in Attachment II of the EU Dir.92/43: *Salicornia veneta* (endemic on the north Adriatic coast). The following species threatened at a national level are present in the wetland (“Libro Rosso della Flora d’Italia”): *Bassia hirsuta*, *Limonium bellidifolium*, *Plantago cornuti*. The following species, protected in the Emilia-Romagna region, are also present: *Limonium* sp., Orchidaceae.

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

Birds listed in Attachment 1 of the European Union Directive 79/409: some nesting pairs of *Circus pygargus* and *Circus aeruginosus* are present, some small nesting colonies of *Himantopus himantopus* and important colonies of *Ardea purpurea* (approx. 30 pairs) and *Sterna albifrons* (approx. 50 pairs).

The site is also locally important for nesting of *Haematopus ostralegus* (10-12 pairs) and *Charadrius alexandrinus*, and generally for migration and wintering of many species of Anatidae and Charadriiformes, including *Gavia* sp.

Important populations of species contained in Attachments II and IV of the EU Dir.92/43: *Paetromyzon marinus*, *Acipenser sturio*, *Acipenser naccarii* (endemic in the north Adriatic), *Alosa fallax* which run up the Goro Po; *Aphanius fasciatus*, *Pomatoschistus canestrini* (endemic) and *Knipowitschia panizzae* (endemic) which populate the waters of the lagoon. The sac is also very important for feeding and growth of numerous fish species, including *Acipenser naccarii*.

Finally, the frequent sightings of *Caretta caretta* (Attachments II and IV of the EU Dir.92/43) are important, as is the presence of *Scarabaeus semipunctatus*.

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

The sac is the site of an important economic activity linked to the cultivation and harvesting of bi-valve molluscs (in particular *Tapes fillippinarum* and *Mitilus galloprovincialis*).

The Gorino Valley is the site of numerous guided tours, with boats which follow the sub-lagoon canals. There is a restaurant in the lighthouse building at the mouth of the river Po, which was restored by means of public funding, and a tourist information facility is also foreseen.

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

The Scannone and surrounding areas are state-owned. The area around the Goro lighthouse is owned by the *Associazione Combattenti e Reduci* (Combatants and Veterans Association).

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

- a) mollusc-farming, mollusc harvesting, professional fishing, regulated hunting, tourism, nature conservation and observation (State Nature Reserve);
 - b) fishing, agriculture, rice-growing, bathing establishments.
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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

The heavy load of pollutants and nutrients transported by the Po tributaries and by large Ferrara land drainage collectors is very damaging to the aquatic ecosystem. These are mainly agricultural in origin and contribute to the increase of eutrophy and “ageing” of the river beds caused by the over-intensive mollusc-farming activities. The harvesting of clams with unsuitable equipment has also occurred

The interventions to improve the poor quality and limited circulation of the waters in the Sac have not always been opportune or efficacious and at times have even been damaging to the delicate coastal ecosystem, such as repeated cutting of the bank. The latest operation of this type destroyed the main coastal pools by filling with excavation material. Tourist activities on the bank (State Nature Reserve) have caused breeding colonies of *Haematopus ostralegus*, *Charadrius alexandrinus* and *Sterna albifrons* to move elsewhere.

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)

Ramsar wetland, established with Ministerial Decree dated 13.07.81, published in the *Gazzetta Ufficiale* (official state journal) No. 203 dated 25.07.81. The part of the site around the sand bank is considered Nature Reserve for animal populations “Dunes and islands of the Gorino Sac”, established by the State with Ministerial Decree dated 18.11.82 published in the *Gazzetta Ufficiale* No.339 dated 10.12.82. The wetland not included in the State Nature Reserve is comprised within the perimeter of the Po Delta regional park (Volano-Mesola-Goro Station) established with regional law No.27 dated 02.07.88. The regulations of the Territorial Plan have been in force since 1991 and are followed by the Province of Ferrara (under approval by the Region). The plan foresees the Ramsar site partly in zone B, in which hunting is forbidden, and partly in a pre-park area in which hunting is regulated. The area is also subject to the limitations of Law 431/85 and Law 1497/39.

Numerous de-silting and dredging operations have been carried out in sub-lagoon channels as well as regulation of the fresh water intakes of the Goro Po in order to improve water circulation.

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

The Territorial Plan of the Park gives the general plan and defines the structural framework. The plan indicates the general and sectorial objectives and the priorities, and specifies (by means of zoning, regulations, limitations, incentives and directives) the various uses to be made of the territory. The Plan also foresees conservation and re-naturalisation activities, partly under way and partly to be carried out in the next few years.

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

The management consortium of the regional Park signed a protocol of understanding with the Regional Agency for Conservation and Environment (ARPA), in 1997, to carry out annual programmes of control and monitoring activities of the quality of the environment over the entire park, the first results of which have already been published.

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

A tourist information centre will be set up in the lighthouse situated at the mouth of the river Po which was restored by means of public financing, and in which a restaurant has already

been established. Guided tours of the State Nature Reserve are organised by the State Forestry Corps.

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

Guided tours of the Reserve are run by the Forestry Corps. Numerous boats, some of which are quite large, carry tourists along the sub-lagoon canals among the reed beds of the river mouth and the sac.

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

Region: Emilia-Romagna; Province: Ferrara, Municipality: Goro.

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

Management of the Nature reserve is carried out by the Forestry Corps in accordance with the regulations of the institutional decrees. Management of the remaining areas is carried out by the private owners, in accordance with the instructions established by the Territorial Plan of the Po Delta Regional Park.

30. Bibliographical references: (scientific/technical only)

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