

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

7IT034

Designation date

Site Reference Number

2. Country:

Italy

3. Name of wetland:

Cervia Salt Flats

4. Geographical coordinates:

44° 15' North; 12° 20' East

5. Altitude: (average and/or max. & min.). average 0 m a.s.l.(max.2/min.-1) **6. Area:** (in hectares) 785 ha

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

The salt flats are vast, flat open expanses of shallow water, bordered by a series of low embankments with halophile herbaceous vegetation and outcropping muddy expanses, cut through by a network of man-made canals. The salt flats are still partly used.

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:

5, 9

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)

The Cervia Salt Flats represent the only salt flats on the Emilia-Romagna coast still in use and have all the necessary elements to act as an aquatic birdlife habitat. They play a fundamental role as a resting, breeding and wintering area for many rare species of the north Adriatic coastal lake system. The site 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 suitable environments for nesting, feeding and resting during migration. Several endemic species of the northern Adriatic are present. There are more than 20,000 aquatic birds regularly present with important populations of Ciconiiformes, Anatidae, Accipitroiformes, Charadriidae, Sternidae. The salt flats are important for the growth of newborn and sub-adult euryhaline species, also of rare and threatened species.

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

The area is situated approximately 1 km from the town of Cervia (main Municipality) and approximately 20 km from Ravenna (capital of the Province) along the Adriatic state road near several coastal tourist resorts (Cervia, Lido di Savio, Lido di Classe, Milano Marittima).

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)

The salt flats, which are Greek or Etruscan in origin and were restructured in the 18th century, are set in a depression behind the dunes upstream of the coastal ridge on which the Adriatic state road runs. There were numerous small salt flats until 1959, that is up until the salt production was still carried out by artisans “in multiple harvests”. In 1959 the salt production industry was radically transformed into a “single mechanised harvest” and the salt flats were reduced from 144 to 10. The large lagoons for salt production are characterised by an artificial succession of environments with ever-increasing salinity. The salinity varies throughout the year, reaching very high levels many times greater than that of sea water. The bed is mainly clayey. The salt flats have two different channels (incoming and outgoing) and are delimited by a surrounding perimeter canal from which numerous internal channels branch-off; dividing the area into various sectors.

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

The complex system of water regulation in the salt flats is of historical and cultural value. A testimony of the old harvesting system is preserved in the publication “The Salt Flats of Camillone”.

The waters of the salt flats are also utilised by the nearby spa establishments for their natural properties.

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

It is an open environment, with poor and very specialised vegetation communities, due to the lack of emerged sand banks and the structural simplicity of the banks. The vegetation of the banks is characterised by *Agropyron pungens*, *Arthrocnemum fruticosum*, *Halimione portulacoides*, with *Limonium serotinum* and *Juncus maritimus*. The basins are characterised by shallow, open waters and temporarily outcropping muddy expanses.

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

The following species threatened at a national level are present in the area (“Libro Rosso della Flora d’Italia”): *Limonium bellidifolium*, *Trachomitium venetum*. 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: important colonies of Charadriiformes, with *Himantopus himantopus* (90-160 pairs), *Recurvirostra avosetta* (50-122 pairs), *Larus melanocephalus* (1500 pairs). A recent and very important colony of *Sterna albifrons* (280-350 pairs), *Sterna hirundo* (40-50 pairs). Occasional nesting of *Glareola pratincola*. Furthermore, the presence is noted of a large number of species contained in the Directive for wintering and migratory stops, of an international interest given the number of birds. It is worthwhile noting among the wintering species (the figures in brackets indicate the number of individual birds present in 1996): *Egretta alba* (17), *Egretta garzetta* (138), *Tadorna tadorna* (313), *Anas crecca* (1517), *Anas penelope* (2462), *Recurvirostra avosetta* (612), *Vanellus vanellus* (733), *Calidris alpina* (3335), *Philomachus pugnax* (43), and among the migrating species: *Phoenicopterus ruber*, *Limosa limosa*, *Numenius arquata*, *Tringa stagnatilis*, *Tringa glareola*.

Important populations of species contained in Attachments II and IV of the EU Dir.92/43: *Aphanius fasciatus*, in a typical environment where it does not have to compete with *Gambusia holbrooki*.

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

In addition to the importance of the landscape and wildlife aspects, the salt flats represent an environment of great historical value, going back to Etruscan times. The ancient settlement of Cervia was founded here during the 18th century. With the current decline in the economic importance of salt extraction, the use of muds and waters has become important for the nearby Cervia thermal spa. The attraction of the area, with its historical, cultural and natural wealth, makes tourism the most interesting prospective activity for developing the area. A great deal of attention is given to local culture which has developed around the historical-cultural value of the Salt Flats.

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

The area is state-owned, with the exception of two privately owned areas within the Salt Flats.

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

- a) salt extraction; extraction of thermal muds, agriculture;
 - b) nature conservation and observation (Cervia pine woods), agriculture, tourism, hunting (positions around the perimeter).
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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 main threat to the site is the risk of the abandonment of salt production by the State Monopolies due to the reduced economic importance of salt. This would result in the inevitable, gradual alteration of the typical ecosystem linked to hypersaline waters. A remarkable impact is caused by the sudden variations in water level due to salt production, with flooding of nests and periods of drought during the main migration period of aquatic birds. A further serious disturbance is caused by the numerous fixed positions for hunters spread around the Ramsar zone, which attracts large numbers of birds by providing fresh water at the borders of a completely salty area.

Finally, there are practically no sand banks in the salt flats and the nesting of the bird life is concentrated on the banks, which are not very suitable, are full of land based predators and are close to old hunting positions which make fatal traps for the chicks. Moreover, the bank environments are too simple to host complex vegetation groups, whilst restored sand banks, with differing levels, could substantially increase the biodiversity of the site.

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, subsequently modified and partially integrated with Ministerial Decree dated 07.08.81 published in *Gazzetta Ufficiale* No.222 dated 13.08.81.

The entire state-owned area included in the Ramsar wetland is subject to limitations as a natural reserve denominated "Cervia Salt Flats", established by the State in accordance with law dated 31.01.79, published in the *Gazzetta Ufficiale* No.160 dated 13.06.79.

The small portions of Ramsar wetland not included within the Nature Reserve (private property and through-roads) are included within the perimeter of the regional park of the Po Delta (Pineta di Classe and Cervia Salina) established with regional law No.27 dated 02.07.88, within which boundaries is comprised the State nature reserve, notwithstanding (pursuant to Law 394/91 and regional law 11/98) the legal structure and managerial autonomy of the reserve itself. The regulations of the Territorial Plan have been in force since 1991 and are followed by the Province of Ravenna (under approval by the Region). The area is also subject to the limitations of Law 431/85 and Law 1497/39.

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.)

The site has been well studied from a bird-watching point of view, with data available since 1977. A census of the nesting and wintering colonies is carried out annually.

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

With collaboration between EE.LL, Regional Park, Emilia-Romagna Region, C.F.S. and State Monopolies over recent years, activities have started for the upgrading and improvement of teaching and cultural facilities. In particular, the ex-slaughterhouse (next to the Salt Flats) has been restructured as a Visitors' Centre of the Stazione del Parco (under completion) and a nature trail has been set up. Environmental education is run by local co-operatives in

collaboration with the Park. A thorough and qualified teaching service is also given by the local State Forestry Corps.

The Salt Flats Museum is located in the historical centre of Cervia, in a section of the old salt warehouses. An integrated eco-museum route is presently being designed, which links the museums, city sites and nature sites in order to have an overall knowledge of the local history, culture and environment.

A considerable amount of documentation has been produced (prepared by local agencies, the Region, the Park and nature associations) for educational and teaching purposes which illustrates the natural characteristics and the recreational, cultural and tourist opportunities offered by the area.

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

The opportunities for recreational tourism and culture are varied and numerous. Specific ecological activities (walks, guided tours, evening showings of slides, etc.) are organised by cultural groups and co-operatives. There are also numerous local associations, such as the Salt Flat Cultural Group, the Cervese Archeological Group and the Association of Environmental Excursionist Guides.

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

Region: Emilia-Romagna; Province: Ravenna; Municipality: Cervia.

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

Management of the Nature Reserves is carried out by the Forestry Corps in accordance with the regulations of the institutional decrees. Management of the activities relative to production and harvesting of salt is carried out by the State Monopolies – Direction of the Cervia Salt Flats – Corso Mazzini 41, Cervia (RA). 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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