

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

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Designation date

Site Reference Number

2. Country:

Italy

3. Name of wetland:

Pialassa della Baiona

4. Geographical coordinates:

44° 30' North; 12° 15' East

5. Altitude: average -1 m a.s.l. (max. 3/min -4)

6. Area: (in hectares) 1,630 ha

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

The Ramsar zone comprises three "*piallasse*": Baiona, Risega and Potazzo (commonly known under the name "Baiona"), north of the Candiano canal and the industrial port of Ravenna. The actual Pialassa Baiona represents the best preserved portion of the site with open countryside, brackish wet meadows with *Puccinellia sp.* and *Limonium sp.* and halophile communities of *Salicornia sp.* Artificial channels cut through a series of salty to brackish wetlands with large sediment deposits and vast intertidal silty expanses. It borders to the west with the Pineta di San Vitale (with which it constitutes a very valuable environmental complex), to the north, beyond the Lamone river, with three recently reclaimed agricultural areas (1970s) which are partly re-flooded (Risarina), to the south with the area of the industrial port beyond which the *piallassa* Piombone is found, much altered and closed in on every side by industrial establishments and wharfs.

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

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

1a - lb - lc - 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)

Pialassa Baiona represents the only example of an intertidal lagoon on the Emilia-Romagna coast. The northern part is quite well preserved. It plays a fundamental role as a feeding ground for most of the rare species nesting in the nearby Ramsar zone complex of “Punte Alberete” (Alberete Point)-Valle Mandiole. It 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 important populations of Ciconiiformes, Anatidae, Accipitriformes, Charadriidae, Sternidae. The flats are very 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 approximately 10 km north of the city of Ravenna (main Provincial and Municipal city) along the Romea state road and in the vicinity of several coastal tourist resorts (Casalborsetti, Marina Romea, Porto Corsini).

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 *piallasse* originated as marine sacs closed in by river deposits and gradually isolated from the sea, with an artificially maintained opening in correspondence with the wide mouth of the port. The beds are mainly sandy in the part nearest to the stretch of sea dunes, whilst they become mainly silty in the tidal water areas. The tides cause large variations in the water levels with vast expanses of muddy flats emerging, although several shoals and the banks of the sublagoon canals are permanently above water level. Salt water enters from the sea whilst the fresh water comes from the numerous drainage channels from the plain and water intakes on the Lamone river. The fresh waters coming from the intensely cultivated areas are often of very poor quality, especially in the summer, and cause eutrophic conditions in the *Piallasse*. Some areas to the west, near Pineta di San Vitale, have been cleaned and embankments built (Pontazzo) for water phyto-purification and to prevent the saline wedge from entering further into the Pineta aquifer.

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

The area was important in the past to maintain proper operation of the entrance to the Canaiano canal (industrial port of Ravenna), preventing the silting up of the river mouth. This

function has become less important since the construction in the 1970s of the outer jetties. The area currently has an important role in the phyto-purification of the drainage waters from the entire agricultural plain lying behind it.

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

Large brackish sac cut by channels to facilitate entry of the tides, with dunes covered in halophile vegetation of *Salicornia* sp. and *Arthrocnemum* sp. and embankments with halophile herbaceous vegetation, *Agropyron pungens*, with submerged meadows of *Ruppia cirrhosa* and *Ptamogeton pectinatus*, reed beds of *Phragmites australis*, marginal areas with *Juncus maritimus* and *Juncus acutus* wet meadows; wet meadows of *Puccinellia* sp. and *Limonium serotinum*, extensive muddy areas emerging during low tide, with annual populations of *Salicornia veneta*.

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 threatened at a national level are present in the wetland ("Libro Rosso della Flora d'Italia"): *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 *Ardea purpurea* and *Ixobrychus minutus*, possible nesting of some pairs of *Circus pygargus*. The colonies of Caradriformi spread over the dunes are very important: *Himantopus himantopus* (30-40), *Recurvirostra avosetta* (15-40 pairs), *Larus genei* (0-8 pairs), *Sterna hirundo* (50-250 pairs) and in particular, *Sterna albifrons* of which the current 450 pairs constitute the main national group.

The site is also locally important for nesting of *Riparia riparia* (100 pairs) and for feeding of many nesting species in the Punte Alberete-Valle Mandriole complex (*Phalacrocorax pygmaeus*, *Egretta alba*, *Egretta garzetta*, *Platalea leucorodia*, *Plegadis falcinellus*, *Chlidonias hybrida*) and migration of many species of aquatic and non-aquatic birds (Podicipediformes, Pelecaniformes, Ciconiiformes, Anseriformes, Accipitriformes, Cruiformes, Charadriiformes). It is a very important wintering site for *Tachybaptus ruficollis*, with more than 1,000 specimens, and *Larus ridibundus*, with almost 20,000 specimens.

Important populations of species contained in Attachments II and IV of the EU Dir.92/43: *Emys orbicuoaris*, *Aphanius fasciatus*, *Knipowitschia panizzae* (endemic) which populate the waters of the Pialassa.

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

All the resources of the area are used greatly by the inhabitants of Ravenna: regulated hunting, fishing, mollusc harvesting. It is appreciated for its attractive panoramas and is a meeting place for leisure activities of the local population.

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

The sole owner is the Municipality of Ravenna.

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

- a) amateur and professional fishing, mollusc harvesting, regulated hunting, natural phyto-purification, nature observation;
- b) Pineta di San Vitale, agriculture, regulated hunting, tourism.

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 and disturbance comes from hunting activities which are intensely carried out in this area. Some of the places used for waiting and sighting the prey are breeding places for *Sterna hirundo* and *larus genei* and the eggs and young are often destroyed by those using these places. Great damage and disturbance to the countryside and ecosystem is caused also by the fixed apparatus used for fishing, with large nets and numerous huts.

Further serious disturbance is represented by the constant presence of fishermen and a very high number of mollusc harvesters - in particular those in motor boats which make waves high enough to submerge nests and erode the banks. Unauthorised changes have been made to the layout of the expanses of water aimed at rendering them more attractive to migratory ducks and swans, but this is detrimental to the vegetative species and other animal species. The water of the *Piallasse* are often eutrophic due to the intense use of fertilisers in the agricultural areas and the mud banks are particularly polluted from the discharges in previous decades from the nearby Ravenna industrial area. These quantities are now substantially decreasing as a result of the signing of specific protocols of intent with the companies operating in the area, and the carrying out of water regulation works and natural phyto-purification of the agricultural discharges.

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, with respect to the boundaries, with Ministerial Decree dated 29.11.83 published in the *Gazzetta Ufficiale* No.73 dated 14.3.84. The area is also subject to the limitations of Law 431/85 and Law 1497/39. The whole Ramsar wetland is comprised within the perimeter of the Po Delta regional park (Pineta di San Vitale and Piallase di Ravenna 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), which foresees the entire Ramsar site as a pre-park area in which hunting is regulated.

In order to identify the most suitable forms of management, the Municipality of Ravenna has recently carried out a Life-Nature project entitled "Management Project for the San Vitale Site" aimed at recreating the breeding conditions for birds threatened with extinction and counteracting phenomena which alter the characteristic habitats in the wetlands and subsequently impoverish the biodiversity. Operations aimed at restoring correct water circulation in several channels have been carried out, as well as reconstruction of large dunes and shoals for nesting of Charadriiformes, resulting in a remarkable success for *Sterna albifrons*.

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 for the area 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.

The provisions foreseen for the site under the Life project will be included within the existing planning instruments (General Plan of the Municipality of Ravenna and municipal regulations, Territorial Plan of the “Pineta di San Vitale and Pialasse di Ravenna” Station of the Po Delta regional park and relative regulations governing permitted activities).

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

The geological and vegetational aspects are studied by the University of Ravenna. A census of the colonies present on the newly constructed banks was carried out by the Municipality of Ravenna (this activity will be continued in the future).

The management consortium of the regional Park signed a protocol of understanding with the Regional Agency for Prevention 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.)

The site utilises the facilities present in the nearby Pineta di San Vitale. 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.

The environmental educational activities (guided tours and schools trips) are run by local Associations and Co-operatives (Cultural Coop. of S.Alberto, Atlantide Coop., Arca Coop.) in collaboration with the regional park.

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

The area is used for leisure and cultural activities with various guided tours organised by local co-operatives in coordination with the regional park.

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

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

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

Management of the site is carried out by the Municipality of Ravenna as sole owner, 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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