

Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 14, 3rd edition). A 4th edition of the Handbook is in preparation and will be available in 2009.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

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

Ministry for the Environment, Land and Sea –
Directorate General for Nature and Sea Protection.
Via Capitan Bavastro 174, I-00154 Rome
DPN-Div6@minambiente.it

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

November, 5th 2010

3. Country:

Italy

4. Name of the Ramsar site:

Palude del Brusà – Le Vallette

5. Designation of new Ramsar site or update of existing site:

This RIS is for:

- a) Designation of a new Ramsar site or
b) Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

- a) Site boundary and area

The Ramsar site boundary and site area are unchanged:

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately ; or
- ii) the boundary has been extended ; or
- iii) the boundary has been restricted**

and/or

If the site area has changed:

- i) the area has been measured more accurately ; or
- ii) the area has been extended ; or
- iii) the area has been reduced**

** **Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site:

a) A map of the site, with clearly delineated boundaries, is included as:

- i) a **hard copy** (required for inclusion of site in the Ramsar List): x;
- ii) an **electronic format** (e.g. a JPEG or ArcView image) x;
- iii) a **GIS file providing geo-referenced site boundary vectors and attribute tables** x.

b) Describe briefly the type of boundary delineation applied:

The boundary of the Ramsar site is similar to the border site SIC IT3210016 “Palude del Brusà – le Vallette” – (EU-Directive 92/43/CEE), and to the ZPS IT3210016 (EU-Directive 79/409/CEE). It is also a Local Interesting Protected Area (D.C.C. December 12 th, 1994 n. 50).

8. Geographical coordinates (latitude/longitude, in degrees and minutes):

45°10'N 11°13'E

9. General location:

Italy, Veneto Region, Province of Verona, Municipality of Cerea, It is about 2 km from the town of Cerea and about 35 km from the city of Verona.

10. Elevation: (in metres: average and/or maximum & minimum)

Min 11 – Max 15 m a.s.l.

11. Area:

170,61 hectares

12. General overview of the site:

The wetland named “Palude del Brusà – Le Vallette”, is localized in the “former big valley” area of Verona’s Province. It represents one of the larger wetlands survived to the drainage operation that characterized the area features. The area consists of an alluvial valley originated from the accumulation of alluvial sediments transported by Quaternary glaciers and rivers of “Alto Adige”, that have filled the existing lagoon. The habitat is identifiable among the best preserved examples of original appearance of those places in the “Padano-Veneta” plain. It can be defined as "the last valley" remained unchanged from the great drainage operation of the past.

13. Ramsar Criteria:

Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.

1	•	2	•	3	•	4	•	5	•	6	•	7	•	8	•	9
x		x		x		x		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		x		<input type="checkbox"/>

14. Justification for the application of each Criterion listed in 13 above:

1. The Site represents one of the most representative and better preserve wetland areas in the Padania plain.
2. The Site supports many rare species characteristic of wetland: *Salvinia natans* (present in Bern Convention, 1979; Vulnerable in Red book of Italian Plants, Conti *et al.*, 1992 and in Regional red lists, Conti *et al.*, 1997), *Sagittaria sagittifolia* (Endangered in Red book of Italian Plants, Conti *et al.*, 1992 and in Regional red lists, Conti *et al.*, 1997). Moreover, several interesting protected species are (L.R. Veneto n. 53 del 15/11/74): *Nuphar luteum*, *Nymphaea alba*, *Typha angustifolia* and *Typha latifolia*. There are also 3 species of amphibians and reptiles, presented in Annex II of Directive 92/43/EEC: *Triturus carnifex* (Least Concern in IUCN 2010, Red List of Threatened Species), *Rana latastei* (Vulnerable in IUCN 2010, Red List of Threatened Species) and *Emys orbicularis* (Lower Risk/near threatened in IUCN 2010, Red List of Threatened Species). Several birds are present in Annex I of the EU Birds Directive 79/409/CEE as *Aythya nyroca*, *Ixobrychus minutus*, *Botaurus stellaris*, *Ardea purpurea* and *Circus aeruginosus*.
3. The Site has a important role as a resting, breeding and wintering area for many rare species of the “Pianura Padana” wetland system. It is host to a large number of rare fauna and flora species, with representative populations at a national level (See point 21 and 22).
4. The wetland represents one of the main place of feeding for the colonial species nesting in the area (*Ixobrychus minutus*, *Botaurus stellaris*, *Ardea purpurea*), and for several migrating species (see point 22).
8. The flats are very important for the growth of newborn and sub-adult species (*Ictalurus melas*, *Scardinius erythrophthalmus*, *Lepomis gibbosus*, *Cobitis taenia*, *Cyprinus carpio*, *Carassius auratus*, *Pseudorasbora parva*, *Rodbeus sericeus*).

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Continental

b) biogeographic regionalisation scheme (include reference citation):

Biogeographical Regions, Europe 2005, officially used in the Habitats Directive (92/43/EEC) and for the EMERALD Network set up under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention). The bio-geographic regions dataset contains the official delineations used, modifications adopted by the Bern Convention Standing Committee and approved by habitats Committee in 05/04/03.

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

The “Palude del Brusà – Le Vallette” is located in the Municipality of Cerea in the south part of the Verona Province and is one of the largest wetlands survived the reclamation works made into the area (Marchiori and Sburlino, 1986). The municipal territory, including in the area of river Menago, is an alluvial area, originated from the accumulation of sediments transported by Quaternary glaciers and rivers that have filled the existing lagoon. The boundary between the coarse and medium – fine sediments is marked by the "line of fountains or springs". From one of these springs originates the Menago River, which crosses the territory north-south direction for 42 km, and flows into Tartaro-Canal Bianco river.

From the geomorphological point of view, the area between the rivers Po, Adige and Mincio corresponds to a valley created by a branch of the Adige Valley, later abandoned and occupied by the waters of Menago, whose altitude varies from 15 to 11 m a.s.l. .

The climate of the Padana plain is a fresh-temperate continental type. Referring to the climatic system classification of C.W.Thornthwaite, the climate can be defined as being sub-humid to sub-arid, as shown by the dryness index ($I_a = 21.3$), second mesothermic variety with low or moderate water surplus in the winter and a water deficit on July and August (Feddema, 2007).

17. Physical features of the catchment area:

The Menago basin is characterized by small compact soil (sand and gravel): from Villafonata to Cerea there is a depression bounded by two sandy cones, with organic material, while the next zone consist of clay soil. In the Middle Ages, Menago river, stretched in meanders, which overflowed forming areas of waterlogging. Over time, the progressive sedimentation of organic material, derived from the anaerobic decomposition of marsh plants, led to the formation of a peat substrate (maximum deep: 14 meters). In the whole area, the groundwater is in equilibrium with the level of the Adige river.

18. Hydrological values:

The main hydrological value is the possibility of partly purifying the waters, rich in nutrients, which are flowing from the surrounding cultivated areas.

19. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • O • P • Q • R • Sp • Ss • Tp • Ts • U • Va •
Vt • W • Xf • Xp • Y • Zg • Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

b) dominance:

Tp, M, Ts, 3, 9

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The "Palude del Brusà – Le Vallette" is a depressed area and peatland corresponding to a groove created by a branch of the Adige valley, later abandoned and occupied by the waters of Menagio. The Reserve covers an area of 117 hectares: 87 of these are called "Valette", and the remaining 30 are named "Valle del Brusà". The fauna of this area is rich with mammals, birds, amphibians, reptiles, fishes, crustaceans, molluscs and insects; otherwise, the flora includes the typical "hygrophilous wood" dominated by *Salix alba* and *Salix Caprea* than *Populus nigra*, *Morus alba*, *Acer campestre*, *Ulmus minor*, *Quercus robur*, *Alnus glutinosa*.

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

In the area are present important phytocenosis and botanic species like: *Lemnetum gibbae*, *Azollo filiculoidis*- *Lemnetum minuscolae*, *Hydrocharitetum morsus-ranae*, *Ceratophylletum demersi*, *Vallisneria spiralis*; *Nuphar luteum*, *Nymphodetum peltatae*, *Caricetum eltae*, *Caricetum acutiformis*, *Caricetum gracilis* (uncommon in the lower Padania plain), *Mentha aquatica*-*Caricetum pseudocyperi*, *Carex pseudocyperus* (rare in the lower Padania plain) *Iris pseudacorus*, *Glycerietum maxime*, *Phragmitetum vulgaris*, *Sparganietum erecti*, *Galio-Urticetea*, *Sambucetum ebuli*, *Hulmus lupulus*, *Solidago Canadensis*, *Phragmites australis*, *Sisymbrium officinalis*, *Salicetum cinereae* and *Salicetum albae*.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Approximately 150 species of birds are seen in the area throughout the year. The most important seen species or families are the following:

Ardeidae (bittern - *Botaurus stellaris*, little bittern - *Ixobrychus minutus*, red heron - *Ardea purpurea*), *Anatidae* (gadwall - *Anas strepera*, common teal - *Anas crecca*, wild duck - *Anas platyrhynchos*, garganey - *Anas querquedula*, ferruginous duck - *Aythya nyroca*), marsh-harriers - *Circus aeruginosus*, *Scelopacidae* (common snipe - *Gallinago gallinago*, spotted redshank - *Tringa erythropus*, common

redshank - *Tringa totanus*), *Sylviidae* (great reed warbler - *Acrocephalus arundinaceus*, reed warbler - *Acrocephalus scirpaceus*, sedge warbler - *Acrocephalus schoenobaenus*, savi's warbler - *Locustella luscinioides*).

23. Social and cultural values:

a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

In the late eighteenth century the marshes of Cerea were covering an area of approximately 2200 hectares, Today the area is just over 100 hectares. These valleys in different historical periods have been used by humans for fishing, hunting, collection of reeds, sedges and marginally for the cultivation of poplar and vegetables. The reed is used for manufacture of "arelle" now mainly used for construction.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box and describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

- a) within the Ramsar site:
- b) in the surrounding area:

The area is the property of the Cerea Municipality.

25. Current land (including water) use:

- a) within the Ramsar site:

The human activities in the wetland comprise the harvesting of marsh plants (reeds and sedge), but this activity is slowly declining.

Activities related to tourism are starting up requiring nature guides and didactic instructors.

- b) in the surroundings/catchment:

The surrounding area is entirely farmland which in part is forced to discharge its surface drainage waters into the wetland during the heavy rainy periods to avoid flooding. Some agritourist enterprises are being set up in the area to host visitors; horse-riding activities are offered.

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

a) within the Ramsar site:

b) in the surrounding area:

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

This area is a SCI (Site of Community Importance) IT3210016 "Palude del Brusà – le Vallette" – (EU-Directive 92/43/CEE) and SPA (ZPS) IT3210016 (EU-Directive 79/409/CEE). It is also a Local Interesting Protected Area (D.C.C. December 12 th, 1994 n. 50).

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ; Ib ; II ; III ; IV ; V ; VI

c) Does an officially approved management plan exist; and is it being implemented?:

The "Direttiva della Giunta Regionale" (DGR) n. 2371/2006 contains the measures of protection for the Special Protect Areas (SPAs) and establishes criteria for a good conservation status, with particular reference to the activities of monitoring, research, regulation and training on this area.

It considers not necessary a management plan for this site.

d) Describe any other current management practices:

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

29. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

The project "Prisco" (Constant Effort Ringing Project) is managed in Italy by ISPRA (Istituto Superiore per la Protezione e la Ricerca Ambientale - High Institute for Environmental Protection and Research) – EX INFS (Istituto Nazionale per la Fauna Selvatica - National Institute for Wildlife). It includes the study of small passerine birds during the reproductive period, through the collection of biometric data, physical and environmental standard for all stations of the project.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

According to the management association, the tourist affluence in the area is low during all the year.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

The Veneto Region has assigned the management of the Reserve to the Cerea Municipality, which is the government authority with jurisdiction over the area.

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

The municipality of Cerea entrusts to “Associazione naturalistica Valle Brusà” regarding the management of the natural reserve. Address: Via Belle Arti, 83 37053 CERIA (VR), info@oasivallebrusa.it.

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Baccetti N., Dall'Antonia P., Magagnoli P., Melega L., Serra L., Soldatini C. & Zenatello M. (2002). Risultati dei censimenti degli uccelli acquatici svernanti in Italia: distribuzione, stima e trend delle popolazioni nel 1991-200. *Biol. Cons. Fauna*, 111: 1-240.

Confortini I., Turin P., Salviati S. (2005). La fauna ittica del biotopo “Brusà - Vallette” (Cerea - Verona), *Quad. Staz. Ecol. civ. Mus. St. nat. Ferrara*, 15: pp. 91-98.

Feddema J. J. (2007). A revised Thornthwaite – type global climate classification. *Physical Geography*, vol. 26, n. 6, 442-466

Marchiori S., Sburlino G. (1986). La vegetazione della palude Brusà (Cerea - Verona). *Boll. Mus. Civ. Sc. Nat. Verona*, 13: 133-145.

Marconcini C. (2007). Relazione geologica, Piano di assetto del territorio. Comune di Cerea (VR).

Scoppola A., Spampinato G. (2005). Atlante delle specie a rischio di estinzione. Versione 1.0. CD-Rom enclosed to the volume: Scoppola A., Blasi C. (eds.), Stato delle conoscenze sulla flora vascolare d'Italia. Palombi Editori. Roma.

<http://www.regione.veneto.it/Ambiente+e+Territorio/Territorio/Reti+Ecologiche+e+Biodiversit%C3%A0/Misure+di+Conservazione.htm>

http://www.minambiente.it/opencms/opencms/menu/menu_attivita/RN2000_Schede_e_cartografie.html

<http://www.oasivallebrusa.it/>

Please return to: **Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: ramsar@ramsar.org