

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:

12.11.98

For office use only.

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14/12/76

7IT006

Designation date

Site Reference Number

2. Country:

Italy

3. Name of wetland:

Colfiorito Regional Park

4. Geographical coordinates:

43° 00' 58" North; 12° 52' 54" East

5. Altitude: (average and/or max. & min.) 750-800 m a.s.l.

6. Area: (in hectares) 157 ha

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

It is a karstic-tectonic plain with a permanent body of water subject to level fluctuations throughout the year.

The area is the habitat of *Charitetea fragilis*, associations of floating and submerged *Lemnetum minoris*, *Ricciocarpetum natantis* and *Potamogetonum luccentis nymphaetosum* and groups of *Eriophorum latifolium*.

The marsh is an important habitat for the following species of migratory bird life, typical of wetland environments: *Ardea cinerea*, *Ardea purpurea*, *Botaurus stellaris*, *Ixobrychus minutus*, *Anas platyrhynchos*, *Anas clypeata*.

The presence of the eagle-owl and the wild cat in the adjoining reserve Selva di Cupigliolo is important.

The geomorphology, geology, hydrology, hydrology, palaeontology, botany, agronomy, history and scenery of the Colfiorito marsh and the surrounding karstic plains together make them one of the most important features of the Apennines

The hydrology of the area is particularly important as it is a source of drinking water and thermal springs for the Umbria Region

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* 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:

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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)

The area is one of the few examples of a perennial marsh at a high altitude and it therefore represents an important habitat for flora and migratory bird life typical of wetlands.

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

Foligno (20 km), Assisi (25 km), Perugia (35 km), Rome (135 km).

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 Colfiorito area falls within the central part of the Umbrian-Marches ridge. The geostructural set up is formed by the N-S and NNW-SSE macro-anticlines associated with three principle over thrusts having an eastern vergence.

The oldest of the successive deformations is represented by the calcareous massif whilst the youngest is the *Scaglia cinerea*. From a morphostructural point of view, the area is characterised by tectonic ridges and depressions. The latter have been formed by a set of Quaternary faults which have controlled the geometry and the evolution. They are filled with continental fluvial-lacustrine deposits from the late Pleistocene – lower Oligocene.

Clays and clayey-silts, with a variable percentage of small calcareous fragments, cover the entire south-eastern area of the wetland where peat outcrops are present. In general, the entire system of hollows is of karstic-tectonic origin. This karstic complex is characterised by shallow calcareous soils with the exception of the flat areas on the valley floor which are waterlogged during the winter months.

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

The area is characterised by the complete absence of a network of superficial water courses, with the exception of some channels with seasonal flows and some springs. Consequently only a small part of the water supply to the marsh (the only zone perennially flooded and not

reclaimed) is guaranteed from one of the springs and the water level is strictly related to the quantity of rainfall. This is also the case for the other plains, which are dry for most of the year with the exception of the most rainy periods when large temporary bodies of water are formed. The water that accumulates in the depressions drains away into the underground water system through swallow-holes.

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

The area is the habitat for *Charitetea fragilis*, for the association of floating and submerged hydrophytes *Lemnetum minoris*, *Ricciocarpetum natantis* and *Potamogetonum lucentis nymphaeetosum* and the *Eriophorum latifolium* group. In addition, the following halophyte associations are found: *Phragmitetum australis*, *Scirpetum lacustris*, *Phalaridetum arundinaceae*, *Helosciadetum nodiflori*, *Glirecietum aquaticae*, as well as the following species typical of wetlands: *Caricetum ripariae*, *Deschamsio-Caricetum distansis* and *Hordeo-Ranunculetum velutini*.

The phytocenosis characterising the vegetation of the wetlands of the Colfiorito highlands varies according to how wet the soil is and how long the period of flooding lasts.

However the woodland, shrubland and pastureland phytocenosis which covers the surrounding hills are related to the nature of the substrata, their exposure and the altitude. The phytocenosis found within the Ramsar area presents floral and phytosociological as well as landscape features which have attracted international interest in the area.

The agricultural crops grown in the cultivated areas nearby are mostly red potatoes, lentils and cereals.

Infestive species such as poppy (*Papaver rhoeas*) and cornflower (*Centaurea cyanus*) are found in the summer especially in the areas in which wheat and corn are grown.

The traditional cultivation in the surrounding areas, which is mainly cereal growing and forage crops, is reduced substantially as is the grazing of animals on the pasture land. The marginal economy of these activities is no longer competitive on the world markets and caused a drastic reduction to the amount of land which is cultivated and the re-conservation of the more productive lands. Particular cultivation to suit the local demands and/or specialised markets have been increased, such as red potatoes (*Solanum tuberosum* cultivar *desirée*), a Dutch variety which has acclimatised very well to the pedoclimatic conditions of the highlands, and lentils (*Lens culinaris*)

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

The vegetation of the wetlands at Colfiorito is made up of phytocenosis in a formation of concentric circles depending on the depth of the water and the duration of the flooding of the surrounding area. During the spring-summer period the level of the water in the marshes tends progressively to decrease. In the outer ring of vegetation, which remains submerged for a short time, *Hordeo-Ranunculetum velutini* is found with strips of peat-type vegetation characterised by species which are rare for the Apennines such as *Eriophorum latifolium*, *Hydrocotyle*, *Menyanthes trifoliata* and *Epipactis palustris*. Where the water remains at least until the start of the summer the following associations are common: *Caricetum gracilis*, *Phalaridetum arundinaceae*, *Glycerietum maximae* and *Scirpetum lacustris*. In the central part where water is always present to a certain depth, reed thickets are found (*Phragmites australis*) of the association *Phragmitetum australis* which is the most extensive and common cenosis in the wetland. In the zones in which the reed thickets open up, areas of floating and submerged hydrophytes are found, mainly *Nymphaea alba* with *Potamogeton crispus* and *P. pusillus* and *Myriophyllum spicatum* which form part of the sub-association *Potamogetonum lucentis nymphaeetosum*. In the Ricciano plain near the Colfiorito Park, as

in the other karstic hollows which are flooded periodically, the most widespread vegetation is the association *Hordeo-Ranunculetum velutini* and along the ditches there is *Caricetum gracilis*. Near the swallow-holes into which the water flows and in many stretches along the edge of the plain there is a nitrophilous vegetation consisting of *Agropyrum repens*, *Rumex crispus* and *Mentha pulegium* *Agropyro-Rumicion crispi*.

- Species which are rare at a regional level; species whose habitats are seriously endangered; rare species subject being because they are edible, officinal or colourful.
Butomus umbellatus, *Epipactis palustris*, *Eriophorum latifolium* Hoppe, *Orchis laxiflora* Lam., *Ranunculus lingua* L.
- Species which are rare at a regional level; species whose habitats are seriously endangered.
Carex panicea L., *Hydrocotyle vulgaris* L., *Menyanthes trifoliata* L., *Nymphaea alba* L., *Utricularia vulgaris* L.
- Species which are rare at a regional level; species of phytogeographical interest since at the limit of their area or which grow outside the main area of distribution; species of threatened habitats
Triglochin palustre L.

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

There is a wealth of fauna within the area consisting mainly of wetland bird life, especially migratory.

- Resident Population
Bufo viridis viridis, *Rana dalmatina*, *Triturus carnifex*, *Grammotaulius nigropunctatus*, *Anguilla anguilla*, *Alcedo atthis*, *Anas platyrhynchos*, *Botaurus stellaris*, *Fulica atra*, *Gallinula chloropus*, *Milvus migrans*, *Podiceps cristatus*, *Porzana parva*, *Rallus aquaticus*, *Tachybaptus ruficollis*.
- Population during Breeding Period
Acrocephalus arundinaceus, *Acrocephalus scirpaceus*, *Ixobrychus minutus*, *Motacilla cinerea*.
- Wintering Population
Anas penelope, *Ardea cinerea*, *Circus aeruginosus*, *Emberiza schoeniclus*, *Gallinago gallinago*, *Phylloscopus collybita*.
- Migrating Population
Actitis hypoleucos, *Anas acuta*, *Anas clypeata*, *Anas crecca*, *Anas querquedula*, *Anas strepera*, *Anser anser*, *Ardea purpurea*, *Ardeola ralloides*, *Aythya ferina*, *Charadrius dubius*, *Charadrius hiaticula*, *Chlidonias niger*, *Egretta garzetta*, *Gallinago media*, *Himantopus himantopus*, *Larus ridibundus*, *Motacilla cinerea*, *Nycticorax nycticorax*, *Panurus biarmicus*, *Phalacrocorax carbo*, *Philomachus pugnax*, *Porzana porzana*, *Remiz pendulinus*, *Tringa erythropus*, *Tringa gareola*, *Tringa nebularia*, *Tringa totanus*.

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

The area is now particularly important for ecotouristic, didactic and scientific activities. In the past the area represented an economic/social resource for agriculture, fishing and hunting.

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

- a) Local Council
- b) 40% privately owned agricultural communities

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

- a) wetland
- b) cultivated

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) high risk of accidental leakage of toxic/harmful material transported along the S77 highway running alongside the area which is a busy road connecting the main towns of central Umbria with the Adriatic coast.
- b) In the past, the areas immediately adjoining the marshes were entirely cultivated, with a consequent reduction in the surface areas of wetland and peat soils. At present, only part of the neighbouring areas are cultivated and it does not represent a real or potential risk for the site (the activities are regulated by Regional Decree D.G.R. 10447/90). In the past, there was also the risk that channels were opened through the reed beds, which were often set fire to.

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)

Classified as Ramsar Wetland by Ministerial Decree of 17.06.67, published in Official Gazette No. 343 of 17.12.77. It is also classed as a faunistic oasis as of December 1977. Colfiorito Regional Park established with Art. 25 of Regional Regulation No.9 of 03.03.95.

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

- a) Projects have been completed with EU funds (PIM Umbria – 5b) for the conservation of the Colfiorito wetlands (for an amount of 1,559,756,786 ITL).
- b) The preparation of new hides and birdwatching sites is underway. The Park Management Plan and Regulations are also being prepared.

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

The Park Management Plan is presently under preparation, which requires thorough scientific-naturalistic studies. There are also research projects in progress by groups from Italian Universities regarding geology, palaeontology and flora.

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

Information leaflet, visitors' centre "Porta del Parco", multimedia centre with scientific and tourist/recreational information about Colfiorito Reserve and all the other Italian Reserves (under completion).

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

70,000 visitors per year.

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

Region: Umbria; Province: Perugia; Council: Foligno.

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

Consortium of Colfiorito Regional Park (Art.8, Regional Law 9/95).

30. Bibliographical references: (scientific/technical only)

- AA.VV.,- 1989, "*Piano-quadro del sistema parchi-ambiente della Regione Umbria*" (Framework Plan for the Park-Environment system of the Umbria Region). Regione Umbria, Commissione delle Comunità Europee.
 - AA.VV., coordinatore Orsomando, 1998 "*Gli altipiani di Colfiorito, Appennino Umbro Marchigiano. Storia e Ambiente*" (The mountains of Colfiorito, Umbrian and Marches Apennines – History and Environment). Comunità Montana Monte Subasio, Ente Parco Regionale di Colfiorito.
 - Conti, Manzi, Pedrotti, 1992 "*Libro Rosso delle piante d'Italia*" (List of Italian protected plants). WWF-Italia.
 - Orsomando, Bini, Catorci, 1998 "*Aree di Rilevante Interesse Naturalistico dell'Umbria*" (Areas of environmental interest in Umbria). Regione dell'Umbria, Area Assetto del Territorio e P.U.T.
 - *Sceda Bioitaly relativa ai campi Natura 2000*, (Bioitaly Registration) site code IT5210034.
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