

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties.

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DD MM YY

Designation date Site Reference Number

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

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2. Date this sheet was completed/updated:

28. 10. 2003

3. Country:

Austria

4. Name of the Ramsar site:

Mires of the Schwarzenberg

5. Map of site included:

Refer to Annex III of the Explanatory Note and Guidelines, for detailed guidance on provision of suitable maps.

a) hard copy (required for inclusion of site in the Ramsar List): *yes*

b) digital (electronic) format (optional): *yes*

6. Geographical coordinates (latitude/longitude):

13° 45' – 13° 49' E, 47° 04' – 47° 06' N

7. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Country: Austria, State: Salzburg, District: Tamsweg, Communes: Tamsweg (also nearest large town), Unternberg, Ramingstein, Location: Schwarzenberg

8. Elevation: (average and/or max. & min.)

1580 - 1730 m

9. Area: (in hectares)

79.091 ha (mires), 266.853 ha (whole site)

10. Overview:

The Schwarzenberg is a mountain southwest of Tamsweg on the southern side of the Mur valley with an altitude of about 1780 m. A big mire complex with an extent of about 80 ha has developed in the summit region where the terrain, which has overflowed this mountain. The bedrock is mica shale and glacial forms and deposits are restricted to the summit region. The climate is subalpine continental, similar to boreal conditions and outstanding for the Alps (695 mm, 4,2° C in 1000 m). The hydrogenetic mire types occurring on the

Schwarzenbergmirror this conditions: beside percolation mires and bogs we can find Aapa mires there, a boreal mire type, which in the Alps only occurs in the Tamsweg region.

*Not only the mire types show this boreal aspect, also some of the plant communities, eg. the *Empetro hermaphroditi-Sphagnetum fusci* (Crowberry-Brown Peatmoss Community), have their main distribution area in the boreal zone and, thus, contain also boreal species like the Dwarf Birch (*Betula nana*) and the boreal Cranberry species *Vaccinium oxycoccos*.*

11. Ramsar Criteria:

Circle or underline 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).



12. Justification for the application of each Criterion listed in 11. above:

Criterion 1: *The mires of the Schwarzenberg are natural and show typical features of both, boreal and Alpine peatlands.*

Criterion 2: *The plant communities of the mires and marginal forests are endangered as almost all wetland communities in Central Europe.*

Criterion 3: *As the plant communities of the mires of the Schwarzenberg are typical for the nemoral and the boreal zone, they add an important part to the biodiversity of the region. Outstanding for the biogeographical region of the Alps is the occurrence of the boreal species *Betula nana* (Dwarf Birch). Examples for other plant species not growing outside peatlands are *Carex pauciflora* (Few-flowered Sedge), *Drosera rotundifolia* (Round-leaved Sundew), *Menyanthes trifoliata* (Bogbean), *Vaccinium microcarpum* (a boreal Cranberry species) and numerous *Sphagnum* species (Peatmoss).*

13. 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: *Central Alps – Niedere Tauern – Murauer Berge*

b) biogeographic regionalisation scheme (include reference citation): *Steiner, G.M. (1992) Österreichischer Moorschutzkatalog. Grüne Reihe des Bundesministeriums für Umwelt, Jugend und Familie Bd. 1, 509 pp, Moorkarte 1:500.000, styria medien service, Graz.*

14. 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 bedrock of the Schwarzenberg is mica shale with glacial deposits in the summit region. In contrast to the summit plateau with its soft glacial forms the slopes are fairly steep and cut by some v-shaped valleys. The summit plateau offers ideal conditions for the development of larger mires. The climate is continental subalpine (695 mm, 4,2° C in an altitude of 1000 m), similar to boreal climate, and the mire vegetation mirrors this conditions.

15. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

The catchment area is the same as the site.

16. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Retention of precipitation especially after thunderstorms or heavy rainfall.

17. 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:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

U: *Non forested peatlands*-Xf: wet forest

18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site.

The mires of the Schwarzenberg represent a mixture of nemoral and boreal mire and vegetation types.

The typical plant communities in the different mire types are:

paludification mires - *Caricetum nigrae* (Common Sedge Community) and *Caricetum rostratae* (Bottle Sedge Community)

spring fens - *Montio-Philonotidetum fontanae* (a moss community), *Caricetum nigrae* (Common Sedge Community) and *Caricetum rostratae* (Bottle Sedge Community)

percolation mires - *Caricetum nigrae* (Common Sedge Community) and *Caricetum rostratae* (Bottle Sedge Community)

Aapa mires - *Caricetum limosae* (Bog Sedge Community), *Eriophoro vaginati-Trichophoretum cespitosi* (Harestail Cotton Grass-Deergrass Community) and *Sphagnetum magellanicum* (Peatmoss Community) with prevailing *Sphagnum papillosum*

bogs - *Caricetum limosae* (Bog Sedge Community), *Caricetum rostratae* (Bottle Sedge Community), *Eriophoro vaginati-Trichophoretum cespitosi* (Harestail Cotton Grass-Deergrass Community), *Sphagnetum magellanicum* (Peatmoss Community), *Empetro hermaphroditi-Sphagnetum fusci* (Crowberry-Brown Peatmoss Community) and *Pino mugo-Sphagnetum magellanicum* (Peatmoss Community).

Table 1: The Mires of the Schwarzenberg

<i>Name</i>	<i>Size ha</i>	<i>Altitude m</i>	<i>Mire type(s)</i>
<i>Saumoos</i>	26,382	1580 - 1660	<i>Mountain pine bog and acid percolation mire</i>
<i>Kohlstattmöser</i>	19,993	1600 - 1670	<i>Big complex of acid spring fens, percolation mires and paludification mires connected by wet forests</i>
<i>Moore am Obernock</i>	5,824	1660 - 1720	<i>Group of four small mountain pine bogs</i>
<i>Seemoos</i>	8,454	1700 - 1720	<i>Aapa mire with a big central hollow and surrounded by a pine bog ring</i>
<i>Sattelmoos</i>	13,621	1700 - 1730	<i>Mountain pine bog and acid percolation mire</i>
<i>Moor bei der Bayerhütte</i>	4,817	1680	<i>Acid spring fens, percolation mire and paludification mire</i>
	79,091	1580 - 1730	

The mires of the Schwarzenberg are all natural, not even affected by grazing. The only use of the mires is hunting.

19. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. 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.**

*Outstanding for the biogeographical region of the Alps is the occurrence of the boreal species *Betula nana* (Dwarf Birch) and *Vaccinium microcarpum* (a Cranberry species), as well as the *Empetro hermaphroditi-Sphagnetum fusci* (Crowberry-Brown Peatmoss Community).*

See also table 2 in the supplementary information - noteworthy are all species listed in the Red Data Book.

20. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. 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.**

See table 3 - noteworthy are all species listed in the Red Data Book, the Habitat's Directive or the Bird's Directive.

21. Social and 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. *None*

22. Land tenure/ownership:

(a) within the Ramsar site: *Austrian Federal Forestry (ÖBf AG)*

(b) in the surrounding area: *Austrian Federal Forestry (ÖBf AG), private landowners*

23. Current land (including water) use:

(a) within the Ramsar site:

Certified forestry (Pan European Forest Certification PEFC 2001/02) outside the mires and hunting

(b) in the surroundings/catchment:

Certified forestry (Pan European Forest Certification PEFC 2001/02) and hunting

24. 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:

A catastrophic storm in November 2002 damaged the whole forests at Schwarzenberg. This surely will affect the hydrology of the whole area and, of course, also the mires; but we do not know yet in which way. As the forestry law demands the removal of the broken trees, they had to be removed also from parts of the mires. This was done in a very mire friendly way, the ÖBf even used helicopters, but it was impossible to exclude any influence.

(b) in the surrounding area:

As in (a).

25. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

All mires in Salzburg are ex lege protected by § 24 of the nature conservation law.

Furthermore the ÖBf AG guarantees that there will be no peat extraction, no drainage in mires, no building of forestry roads affecting them, extensive forestry in the marginal forests and, if possible, to keep the mires free of grazing and trampling. Certified forestry (Pan European Forest Certification PEFC 2001/02) and hunting in the area outside the mires will continue without any restrictions, but following the wise use principles of the Ramsar Convention.

26. Conservation measures proposed but not yet implemented:

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

Some parts of the Schwarzenberg are in private ownership and not yet part of the Ramsar site. In the next few years the Ramsar site should be extended over the whole mountain. At present other conservation measures are not necessary.

27. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.: *None*

28. Current conservation education:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.: *None*

29. Current recreation and tourism:

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

30. Jurisdiction:

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

Office of the County Government of Salzburg, Dept. 13, Nature Conservation

31. 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.

DI Herwig Müller

Österreichische Bundesforste AG (ÖBf AG)

A-5580 Tamsweg, Austria

32. Bibliographical references:

scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

Krisai, R. (1966): Pflanzensoziologische Untersuchungen in Lungauer Mooren. Verh. Zool. Bot. Ges. Wien 105/106: 94 – 136, Vienna.

Niklfeld, H. (1999): Rote Listen gefährdeter Pflanzen Österreichs. Grüne Reihe des Bundesministeriums für Umwelt, Jugend und Familie Bd. 10: 292 pp., styria medien service, Graz.

Steiner, G.M. (1992): Österreichischer Moorschutzkatalog. Grüne Reihe des Bundesministeriums für Umwelt, Jugend und Familie Bd. 1, 509 pp, Karte 1:500.000, styria medien service, Graz.

Supplementary Information on the Mires of the Schwarzenberg

Table 2: Plant species list of the mires of the Schwarzenberg

Vascular and Spore Plants			
<i>Andromeda polifolia</i>	3	<i>Anthoxantum odoratum</i>	<i>Avenella flexuosa</i>
<i>Betula nana</i>	2	<i>Calamagrostis villosa</i>	<i>Calluna vulgaris</i>
<i>Caltha palustris</i>		<i>Cardamine pratensis</i>	<i>Carex canescens</i>
<i>Carex echinata</i>		<i>Carex limosa</i>	3 <i>Carex nigra</i>
<i>Carex panicea</i>		<i>Carex pauciflora</i>	3 <i>Carex paupercula</i> 3
<i>Carex rostrata</i>		<i>Drosera rotundifolia</i>	3 <i>Empetrum hermaphroditum</i>
<i>Epilobium alsinifolium</i>		<i>Equisetum fluviatile</i>	<i>Eriophorum angustifolium</i>
<i>Eriophorum vaginatum</i>		<i>Homogyne alpina</i>	<i>Juncus filiformis</i>
<i>Juniperus communis</i>		<i>Larix decidua</i>	<i>Leontodon hispidus</i>
<i>Luzula luzuloides</i>		<i>Luzula pilosa</i>	<i>Melampyrum paludosum</i>
<i>Melampyrum sylvaticum</i>		<i>Nardus stricta</i>	<i>Oxalis acetosella</i>
<i>Picea abies</i>		<i>Pinus mugo</i>	<i>Potentilla aurea</i>
<i>Potentilla erecta</i>		<i>Ranunculus repens</i>	<i>Rhododendron ferrugineum</i>
<i>Scheuchzeria palustris</i>	2	<i>Trichophorum cespitosum</i>	<i>Vaccinium microcarpum</i> 2
<i>Vaccinium myrtillus</i>		<i>Vaccinium oxycoccos</i>	3 <i>Vaccinium uliginosum</i> 3
<i>Vaccinium vitis-idaea</i>		<i>Valeriana dioica</i>	<i>Veratrum album</i>

Mosses, Liverworts and Lichens			
<i>Aulacomnium palustre</i>		<i>Calliergon stramineum</i>	<i>Cephalozia connivens</i>
<i>Cetraria islandica</i>		<i>Cladonia arbuscula</i>	<i>Cladonia rangiferina</i>
<i>Dicranella palustris</i>		<i>Dicranum bergeri</i>	<i>Dicranum polysetum</i>
<i>Dicranum scoparium</i>		<i>Drepanocladus exannulatus</i>	<i>Gymnocolea inflata</i>
<i>Hylocomium splendens</i>		<i>Mylia anomala</i>	<i>Philonotis seriata</i>
<i>Pleurozium schreberi</i>		<i>Polytrichum commune</i>	<i>Polytrichum strictum</i>
<i>Rhytidiadelphus triquetrus</i>		<i>Sphagnum capillifolium</i>	<i>Sphagnum compactum</i>
<i>Sphagnum fallax</i>		<i>Sphagnum girgensohnii</i>	<i>Sphagnum fuscum</i> 3
<i>Sphagnum magellanicum</i>		<i>Sphagnum majus</i>	3 <i>Sphagnum papillosum</i> 3
<i>Sphagnum quinquefarium</i>		<i>Sphagnum riparium</i>	2 <i>Sphagnum subsecundum</i> 3

The number after the name gives the degree of endangerment from the Red Data Book (Niklfeld 1999):
 1 = endangered to become extinct, 2 = highly endangered, 3 = endangered, 4 = potentially endangered

Table 3: Birds observed at the Schwarzenberg (data from Dr. Susanne Stadler, DI August Wessely, DI Günter Jaritz, Werner Kommik and ÖBf Tamsweg)

Avifauna			
Species	status	RDB	BD
Tetrao tetrix	BV	3	I
Tetrao urogallus	BV	3	I
Parus ater	BV		
Parus cristatus	BV		
Loxia curvirostra	BV		
Glaucidium passerinum	BV		I
Scolopax rusticola	BV	4	
Picoides major	BV		
Dryocopus martius	BV		I

RDB: Red Data Book of Endangered Animals in Austria (Gepp, 1994): 1: very much endangered 2: much endangered, 3: endangered, 4: potentially endangered, B.2: endangered breeding guests

BD: Birds Directive Appendix I

FFH: Habitat and Species Directive Appendix II, IV

status: potentially breeding (BV), migration guests (DZ)