

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:

23. 10. 2003

3. Country:

Austria

4. Name of the Ramsar site:

Mires of Pass Thurn

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):

12° 26' E, 47° 19' 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: Zell am See, Commune: Mittersill (also nearest large town), Location: Pass Thurn

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

1160 - 1600 m

9. Area: (in hectares)

39.855 ha (mires), 190.,068 ha (whole site)

10. Overview:

The southeastern slopes of the Pass Thurn contain a complex of 13 peatlands showing all typical features of mires of the Central Alps in Austria. Sloping fens with base rich conditions on the upper slopes turn into subneutral transitional mires or even acid bogs. The Wasenmoos, a big bog-fen complex, has been cut over in some parts, but is going to be rehabilitated by 2002.

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 mire complex at Pass Thurn is one of the largest peatland concentrations in the Central Alps of Austria. The mires show all typical features and mire types representative for this biogeographical region. Except for one site which has been used for peat cutting all objects are near-natural or natural, only affected by some cattle grazing.*

Criterion 2: *The plant communities of the mires and marginal forests are endangered as almost all wetland communities in Central Europe and *Dactylorhiza traunsteineri*, a rare orchid, has one of the biggest populations in these mires.*

Criterion 3: *The mires of Pass Thurn represent almost all plant communities typical for the biogeographical region of the Central Alps and therefore contribute an important part to the biodiversity of the region. Noteworthy is the occurrence of the Dwarf Birch (*Betula nana*).*

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: *Northern Alps – Northern Shale Alps – Kitzbühler Shale Alps*

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, Karte 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 mires are concentrated on the south-eastern slopes of the Pass Thurn landscape either developed in slope depressions along small streams or on local saddles. The streams all mouth into the brook Engbachl which continues to the Salzach River. The catchment area also contains some limestone and, thus, many of the sources of the streams or spring fen areas are characterised by base-rich water. This, in combination with the acidic conditions at the sites themselves results in a big variety of nutrient conditions in the peatlands.

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 mire complex of Pass Turn is situated in the “Pinzgauer Grasberge” (Grass Mountains of the Pinzgau = Upper Salzach Valley) a softly undulating mountain ridge with only a few rocky summits jutting out above the grassy slopes. Geologically the Pass Thurn area belongs to the Grauwacken Zone built up by marine sediments of the Palaeozoic era. The characteristic bedrock in the mire area is the Pinzgauer Phyllite, a

grey clay-slate, which is almost impermeable and therefore a good basis for paludifications and further on peatland development. The climate is a Central European mountain climate (1135 mm, 5,7° C in 800 m).

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 occuring quite often in this region.

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)
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Inland:

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

1	2	3	4	5	6	7	8	9	Zk(c)
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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 Mires , Xp, M

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 Pass Thurn are near-natural except for one site, the Wasenmoos, which has been used for peat production. The peat was not used as fuel but as litter for the live-stock as straw was very rare in this region in the past. The Wasenmoos is the biggest site (see table 1), a complex of different fen types and a rather large bog. Especially the bog part is affected by the peat cut and also by trampling by cattle.

Most of the mires are complexes of more than one hydrological type. This is caused by the fact that almost all of them are sloping mires and, thus, change their hydrology down slopes. Usually they start with a spring fen and continue either as flush mire with surface water runoff or as percolating mire with water seepage beneath the surface through the peat. In the latter case the originally mesotrophic calcareous water loses its nutrients on the way down slopes and, thus, enables Sphagnum growth and bog development. This, in combination with the changing steepness of the slopes between 5° and almost 0° results in a very diverse pattern of different hydrological conditions in all the mires. In addition, most of the mires are surrounded by a marginal forest (included in the sites).

As most of the mires have no common name we decided to give them only a number. Their size is listed in table 1.

Table 1: The mires of Pass Thurn

<i>Number/Name</i>	<i>Size ha</i>	<i>Communities</i>
<i>Mire 01</i>	0,931	04, 06, 07, 09
<i>Mire 02</i>	2,531	04, 05, 06, 07, 09
<i>Mire 03</i>	2,134	02, 03, 06
<i>Mire 04</i>	3,322	02, 05, 06
<i>Mire 05</i>	3,013	06, 08, 11, 13
<i>Mire 06</i>	2,747	02, 03, 04, 06, 07, 11
<i>Mire 07</i>	3,659	04, 05, 06, 08, 09, 11, 12
<i>Mire 08</i>	1,678	02, 05, 06
<i>Mire 09</i>	1,493	06, 09, 12
<i>Mire 10 Bärenfilz</i>	0,839	02
<i>Mire 11</i>	1,140	03, 04, 05, 06, 09
<i>Mire 12</i>	0,431	05, 06
<i>Mire 13 Wasenmoos</i>	15,737	01, 03, 04, 05, 06, 07, 09, 10, 11, 13, 14
Total mire area	39,855	

Plant communities listed in table 1:

- 01 *Amblystegio-Caricetum diandrae* (*Drepanocladus-Lesser Tussock Sedge Community*)
- 02 *Caricetum davallianae* (*Davall Sedge Community*)
- 03 *Campylio-Caricetum dioicae* (*Campylium-Dioecious Sedge Community*)
- 04 *Menyantho-Sphagnetum teretis* (*Bogbean-Peatmoss Community*)
- 05 *Caricetum nigrae* (*Common Sedge Community*)
- 06 *Caricetum rostratae* (*Bottle Sedge Community*)
- 07 *Caricetum limosae* (*Bog Sedge Community*)
- 08 *Sphagno tenelli-Rhynchosporium albae* (*Peatmoss White Beak-sedge Community*)
- 09 *Sphagnetum magellanicum* (*Peatmoss Community*)
- 10 *Eriophoro angustifolii-Nardetum* (*Cotton Grass- Community*)
- 11 *Pino mugo-Sphagnetum magellanicum* (*Mountain Pine-Peatmoss Community*)
- 12 *Sphagnum fallax* *Community*
- 13 *Eriophorum vaginatum-Sphagnum fallax* *Community*
- 14 *Sphagno girgensohnii-Pinetum sylvestris* (*Peatmoss-Pine Community, marginal forest*)

The parts of Wasenmoos, which are affected by the drainage due to the peat cut and trampling of the cattle have a different vegetation: on dryer parts Nardus stricta (Mat Grass) becomes the dominating grass and where the surface is wounded by trampling bare peat changes with Trichophorum cespitosum tussocks. These parts of the mire are especially endangered by erosion - erosion channels have already developed functioning in the same way as ditches.

Although, the mires of Pass Thurn are outstanding examples of Northern Alpine mires, no scientific work has been carried out so far to describe their fauna, flora and development. The only data available is from a thesis carried out for setting up a management concept (see plant list table 2 in the supplementary information) and some private bird observations (see table 3 in the supplementary information).

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.**

Dwarf Birch (Betula nana), a boreal element, is outstanding in the Alps. For all other species see 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 in the supplementary information - noteworthy species are indicated with s.

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.

The Pass Thurn was only used for forestry, grazing and hunting except for one site, which was a peat cut to deliver peat for fuel and, more important, as litter for the farms in the valley. The use of peat from very remote sites is an important fact to understand the intensity of timber use during the 18th and 19th century. Almost all forests have been overused during this period and could only recreate due to a very strict forestry law since the end of the 19th century. But the forests have not been used for timber production only, they also were important resources for litter and the young twigs even have been used to feed the cattle in winter. After the railway has been built in the second half of the 19th century the growing of crops have been given up, because of the cheap access to cereals, and stock farming was intensified. Of course, this increased the need for litter and, as straw was no longer available, peat was the cheapest alternative.

The use of the site as pasture is a very old right of the farmers of the valley and therefore they do not like to give up these rights. The only possibility is to either buy these rights (almost impossible) or to offer them alternative areas (sometimes more possible).

22. Land tenure/ownership:

(a) within the Ramsar site: *Austrian Federal Forestry (ÖBf AG), one private land owner (3 ha)*

(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, hunting and pasturing

(b) in the surroundings/catchment:

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

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:

*As already mentioned above, Wasenmoos was affected heavily by trampling and the peat cut. The other mires of Pass Thurn are too wet to attract cattle and only bog peat was suitable for the use as fuel or litter. Thus, Wasenmoos lying close to the pass road was the most appropriate place for a peat cut. Although, the site was declared a nature monument in 1978 and pasturing was no longer allowed, no management was established at Wasenmoos and the cattle was not excluded from the site. The consequences for vegetation and hydrology are obvious: about half of the bog part of Wasenmoos is completely dry and covered with either Mat Grass (*Nardus stricta*) or Deergrass (*Trichophorum cespitosum*). The margins of the peat cut collapse due to the change in the hydrology and the peat cut forges ahead into the remaining bog this way.*

(b) in the surrounding area: *None*

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 Salzburgian mires are protected ex lege by § 24 of the nature conservation law. The Wasenmoos is a nature monument since the 16th June 1978. Due to the disturbances mentioned in points 18 and 21 a management concept was established by the main land owners, the Austrian Federal Forests (ÖBf AG), in co-operation with the WWF- Austria and the Institute of Ecology and Conservation Biology (IECB) of the Vienna University in order to rehabilitate the peat cut and it is in discussion with the farmers to exclude cattle from Wasenmoos by fencing it out. The restoration work started in autumn 2002. The ÖBf AG pays for all actions and guarantees for the mires that in future there will be no peat extraction, no drainage, no building of forestry roads affecting them and sustainable forestry in the marginal forests. Certified forestry (Pan European Forest Certification PEFC 2001/02) in the area outside the mires, hunting and pasturing 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.

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.: *Permanent water level recorders, vegetation monitoring plots*

28. Current conservation education:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.: *An information booklet about the mire rehabilitation project is in print*

29. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity. *Cross country skiing (no information about frequency available)*

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 Johann Hirschbichler

Österreichische Bundesforste AG (Öbf AG)

Forstbetrieb Mittersill

Klaugasse 11

A-5730 Mittersill

32. Bibliographical references:

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

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 Pass Thurn

Table 2: Plant species list of the mires of Pass Thurn

Vascular and spore plants					
<i>Agrostis canina</i>		<i>Agrostis capillaris</i>		<i>Agrostis gigantea</i>	
<i>Agrostis stolonifera</i>		<i>Ajuga reptans</i>		<i>Alchemilla vulgaris</i> agg.	
<i>Alnus incana</i>		<i>Andromeda polifolia</i>	3	<i>Anthoxanthum odoratum</i>	
<i>Arnica montana</i>		<i>Aster bellidiastrum</i>		<i>Bellis perennis</i>	
<i>Betula nana</i>	2	<i>Betula pendula</i>		<i>Briza media</i>	
<i>Calla palustris</i>	2	<i>Calluna vulgaris</i>		<i>Caltha palustris</i>	
<i>Calycocorsus stipitatus</i>		<i>Campanula scheuchzeri</i>		<i>Cardamine amara</i>	
<i>Cardamine pratensis</i>		<i>Carex canescens</i>		<i>Carex davalliana</i>	
<i>Carex diandra</i>		<i>Carex dioica</i>	3	<i>Carex echinata</i>	
<i>Carex flacca</i>		<i>Carex flava</i>		<i>Carex lasiocarpa</i>	2
<i>Carex leporina</i>		<i>Carex limosa</i>	3	<i>Carex nigra</i>	
<i>Carex pallescens</i>		<i>Carex panicea</i>		<i>Carex pauciflora</i>	3
<i>Carex pulicaris</i>	2	<i>Carex punctata</i>	2	<i>Carex rostrata</i>	
<i>Carex tumidicarpa</i>	3	<i>Carex vaginata</i>	3	<i>Centaurea jacea</i>	
<i>Cerastium fontanum</i>		<i>Cerastium glomeratum</i>		<i>Chaerophyllum hirsutum</i>	
<i>Cirsium palustre</i>		<i>Crepis paludosa</i>		<i>Cynosurus cristatus</i>	
<i>Dactylorhiza fuchsii</i>		<i>Dactylorhiza maculata</i>		<i>Dactylorhiza majalis</i>	
<i>Dactylorhiza traunsteineri</i>	2	<i>Danthonia decumbens</i>		<i>Deschampsia cespitosa</i>	
<i>Drosera rotundifolia</i>	3	<i>Dryopteris carthusiana</i>		<i>Dryopteris filix-mas</i>	
<i>Epilobium lanceolatum</i>		<i>Epilobium palustre</i>		<i>Equisetum fluviatile</i>	
<i>Equisetum palustre</i>		<i>Equisetum sylvaticum</i>		<i>Erigeron annuus</i>	
<i>Eriophorum angustifolium</i>		<i>Eriophorum latifolium</i>		<i>Eriophorum vaginatum</i>	
<i>Euphrasia rostkoviana</i>		<i>Festuca rubra</i>		<i>Frangula alnus</i>	
<i>Galium palustre</i>		<i>Galium uliginosum</i>		<i>Gentiana asclepiadea</i>	
<i>Hieracium pilosum</i>		<i>Holcus lanatus</i>		<i>Homogyne alpina</i>	
<i>Hypericum maculatum</i>		<i>Juncus acutiflorus</i>		<i>Juncus alpinoarticulatus</i>	
<i>Juncus articulatus</i>		<i>Juncus bulbosus</i>		<i>Juncus effusus</i>	
<i>Juncus filiformis</i>		<i>Juniperus communis</i>		<i>Leontodon hispidus</i>	
<i>Leucanthemum vulgare</i>		<i>Linum catharticum</i>		<i>Listera ovata</i>	
<i>Lotus corniculatus</i>		<i>Luzula sudetica</i>		<i>Luzula sylvatica</i> ssp. <i>sieberi</i>	
<i>Lychnis flos-cuculi</i>		<i>Lycopodiella inundata</i>	2	<i>Lycopus europaeus</i> ssp. <i>mollis</i>	

<i>Lysimachia nemorum</i>		<i>Maianthemum bifolium</i>		<i>Melampyrum sylvaticum</i>	
<i>Mentha aquatica</i>		<i>Mentha dalmatica</i>		<i>Mentha longifolia</i>	
<i>Menyanthes trifoliata</i>	3	<i>Molinia caerulea</i>		<i>Myosotis palustris</i> agg.	
<i>Myosotis scorpioides</i>		<i>Nardus stricta</i>		<i>Oxalis acetosella</i>	
<i>Paris quadrifolia</i>		<i>Parnassia palustris</i>		<i>Pedicularis palustris</i>	3
<i>Picea abies</i>		<i>Pinguicula vulgaris</i>		<i>Pinus mugo</i>	
<i>Poa hybrida</i>		<i>Poa palustris</i>		<i>Poa pratensis</i>	
<i>Poa trivialis</i>		<i>Polygala amara</i>		<i>Polygala amarella</i>	
<i>Polygala vulgaris</i>		<i>Potentilla erecta</i>		<i>Potentilla palustris</i>	3
<i>Primula farinosa</i>		<i>Prunella vulgaris</i>		<i>Ranunculus aconitifolius</i>	
<i>Ranunculus acris</i>		<i>Ranunculus circinatus</i>	3	<i>Ranunculus flammula</i>	
<i>Ranunculus montanus</i>		<i>Ranunculus repens</i>		<i>Rhynchospora alba</i>	3
<i>Rumex acetosella</i>		<i>Salix cinerea</i>		<i>Scheuchzeria palustris</i>	2
<i>Schoenus ferrugineus</i>	3	<i>Selaginella selaginoides</i>		<i>Senecio ovatus</i>	
<i>Silene pusilla</i>		<i>Soldanella montana</i>		<i>Sorbus aucuparia</i>	
<i>Succisa pratensis</i>		<i>Tofieldia calyculata</i>		<i>Trichophorum alpinum</i>	
<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>Valeriana officinalis</i>		<i>Verbena officinalis</i>	
<i>Veronica chamaedrys</i>		<i>Veronica officinalis</i>		<i>Viola palustris</i>	

Mosses and liverworts					
<i>Atrichum angustatum</i>		<i>Atrichum undulatum</i>		<i>Aulacomnium palustre</i>	3
<i>Bazzania trilobata</i>		<i>Brachythecium rivulare</i>		<i>Bryum pseudotriquetrum</i>	3
<i>Calliergon cordifolium</i>	3	<i>Calliergon giganteum</i>	3	<i>Calliergon stramineum</i>	
<i>Calliergonella cuspidata</i>		<i>Calypogeia sphagnicola</i>		<i>Campylium stellatum</i>	
<i>Chiloscyphus polyanthos</i>		<i>Cirriphyllum piliferum</i>		<i>Climacium dendroides</i>	
<i>Conocephalum conicum</i>		<i>Cratoneuron commutatum</i>		<i>Cratoneuron decipiens</i>	
<i>Cratoneuron filicinum</i>		<i>Dicranella cerviculata</i>		<i>Dicranum bergeri</i>	
<i>Dicranum fuscescens</i>		<i>Dicranum scoparium</i>		<i>Drepanocladus aduncus</i>	3
<i>Drepanocladus exannulatus</i>		<i>Drepanocladus lycopodioides</i>	2	<i>Drepanocladus revolvens</i>	3
<i>Drepanocladus uncinatus</i>		<i>Drepanocladus vernicosus</i>	2	<i>Eurhynchium angustirete</i>	
<i>Eurhynchium praelongum</i>		<i>Fissidens adianthoides</i>		<i>Homalothecium nitens</i>	3
<i>Hylocomium pyrenaicum</i>		<i>Hylocomium splendens</i>		<i>Hypnum lindbergii</i>	
<i>Marchantia polymorpha</i>		<i>Mnium marginatum</i>		<i>Mnium spinosum</i>	

<i>Mylia anomala</i>		<i>Odontoschisma sphagni</i>		<i>Philonotis fontana</i>	
<i>Plagiomnium affine</i>		<i>Plagiomnium undulatum</i>		<i>Pleurozium schreberi</i>	
<i>Polytrichum commune</i>		<i>Polytrichum strictum</i>		<i>Pottia caespitosa</i>	
<i>Rhytidiadelphus squarrosus</i>		<i>Scapania irrigua</i>		<i>Sphagnum angustifolium</i>	
<i>Sphagnum capillifolium</i>		<i>Sphagnum contortum</i>	2	<i>Sphagnum cuspidatum</i>	3
<i>Sphagnum fallax</i>	3	<i>Sphagnum flexuosum</i>	3	<i>Sphagnum fuscum</i>	3
<i>Sphagnum girgensohnii</i>		<i>Sphagnum inundatum</i>		<i>Sphagnum magellanicum</i>	
<i>Sphagnum majus</i>	3	<i>Sphagnum obtusum</i>	2	<i>Sphagnum palustre</i>	
<i>Sphagnum papillosum</i>	3	<i>Sphagnum platyphyllum</i>	3	<i>Sphagnum rubellum</i>	3
<i>Sphagnum russowii</i>		<i>Sphagnum squarrosus</i>		<i>Sphagnum subsecundum</i>	3
<i>Sphagnum tenellum</i>	2	<i>Sphagnum teres</i>	3	<i>Sphagnum warnstorffii</i>	3
<i>Splachnum ampullaceum</i>	2				

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 at Wasenmoos (by Dr. Susanne Stadler in 1999, 3 observations)

	<i>Falconiformes</i>	
Goshawk	<i>Accipiter gentilis</i>	B
Golden Eagle	<i>Aquila chrysaetos</i>	s/rB
Buzzard	<i>Buteo buteo</i>	B
	<i>Columbiformes</i>	
Woodpigeon	<i>Columba palumbus</i>	B
	<i>Cuculiformes</i>	
Cuckoo	<i>Cuculus canorus</i>	B
	<i>Strigiformes</i>	
Tengmalm's Owl	<i>Aegolius funereus</i>	rB
	<i>Piciformes</i>	
Great Spotted Woodpecker	<i>Dendrocopos major</i>	B
Black Woodpecker	<i>Dryocopus martius</i>	B
	<i>Passeriformes</i>	
Tree Pipit	<i>Anthus trivialis</i>	B
Goldfinch	<i>Carduelis carduelis</i>	B
Linnet	<i>Carduelis cannabina</i>	rB
Siskin	<i>Carduelis spinus</i>	rB

Treecreeper	<i>Certhia familiaris</i>	B
Raven	<i>Corvus corax</i>	B
Carrion	<i>Corvus corone</i>	B
Robin	<i>Erithacus rubecula</i>	B
Chaffinch	<i>Fringilla coelebs</i>	B
Jay	<i>Garrulus glandarius</i>	B
Swallow	<i>Hirundo rustica</i>	B
Common Crossbill	<i>Loxia curvirostra</i>	rB
White Wagtail	<i>Motacilla alba</i>	B
Coal Tit	<i>Parus ater</i>	B
Crested Tit	<i>Parus cristatus</i>	B
Willow Tit	<i>Parus montanus</i>	B
Redstart	<i>Phoenicurus phoenicurus</i>	B
Chiffchaff	<i>Phylloscopus collybita</i>	B
Hedge Sparrow (Dunnock)	<i>Prunella modularis</i>	B
Bullfinch	<i>Pyrrhula pyrrhula</i>	B
Goldcrest	<i>Regulus regulus</i>	B
Blackcap	<i>Sylvia atricapilla</i>	B
Blackbird	<i>Turdus merula</i>	B
Song Thrush	<i>Turdus philomelos</i>	B
Fieldfare	<i>Turdus pilaris</i>	B
Mistle Thrush	<i>Turdus viscivorus</i>	B

B breeding bird

rB regional breeding bird

s rare - total population in Austria about or less than 100 breeding pairs (non monogamic species: about 200 individuals)