COUNCIL OF EUROPE

CONSEIL DE L'EUROPE

Strasbourg, 27 August 2014
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**T-PVS/PA (2014) 7**

CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

**GROUP OF EXPERTS ON PROTECTED AREAS AND ECOLOGICAL NETWORKS**

Strasbourg (11 - 12 September 2014)

# ANALYSIS OF THE PROPOSALS FOR ADDITIONAL HABITATS TO ANNEX 1 TO RESOLUTION NO. 4 (1996)

*Document prepared by Douglas Evans*
*(European Topic Centre on Biological Diversity)*

## 1. INTRODUCTION

The current version of Annex 1 to Resolution No. 4 (1996) was adopted on 9 December 2010, but is essentially a translation into the EUNIS habitats classification of the original Annex 1 which was adopted on 6 December 1996. At that time, the Emerald Network was being implemented by Contracting Parties which were mostly in west and central Europe and it has long been accepted that the extension of the Emerald Network to Eastern Europe (and elsewhere) might require additional habitats. A form for the submission of proposals for additional habitats (or species) was adopted by the Standing Committee to the Convention in 2010. More recently, there have been discussions on how to make the list of habitats from Annex 1 to Resolution No. 4 (1996) more in line with Annex I of the European Union's Habitat Directive (Evans 2012, 2013).

It is planned that a revised list of habitats [(revised Annex 1 to Resolution No.4 (1996)] is presented for official adoption at the Standing Committee to the Bern Convention. This new revision which could include both changes resulting from (1) the harmonization exercise between Annex 1 to Resolution No. 4 (1996) and Annex I of the EU's Habitats Directive and (2) from those requested by the parties.

## 2. PROPOSALS FOR ADDING HABITATS TO ANNEX 1 TO RESOLUTION NO. 4 (1996)

Five habitats have been proposed in 2014, one by Ukraine and four by Switzerland:

C3.2 Water fringing reedbeds and tall helophytes other than canes

F7.51 Tomillars on chalk outcrops of eastern Europe [proposed new unit]

G1.41 *Alnus* Swamp Woods not on acid peat
[Switzerland proposed G1.4 *Alnus* swamp woods but G1.4 is Broadleaved swamp woodland]

G3.43 Inner- Alpine *Ononis* steppe forests

G3.44 Alpine Spring heath *Pinus sylvestris* forests

Table 1 below summarises the proposals received and gives comments from the European Topic Centre on Biological Diversity. The proposals are attached as an appendix.

## 3. REFERENCES

Demina O.N. (2013) Environmental Priority Assessment of Plant Communities Steppes in the Rostov Region Middle-East Journal of Scientific Research 18 (2): 136-148.

Evans, D (2012) Harmonisation between lists of habitat types targeted by Resolution 4 (1996) of the Bern Convention and Annex I of the Habitats Directive T-PVS/PA (2012) 9 Council of Europe, Strasbourg.

Evans D (2013) Harmonisation between lists of habitat types targeted by Resolution 4 (1996) of the Bern Convention and Annex I of the Habitats Directive: Draft revised Annex I of Resolution No. 4 (1996). T-PVS/PA (2013) 09, Council of Europe, Strasbourg.

Keith DA, Rodriguez JP, Rodriguez-Clark KM, Nicholson E, Aapala K, et al. (2013) Scientific Foundations for an IUCN Red List of Ecosystems. PLoS ONE 8(5): e62111. doi: 10.1371 / journal. pone.0062111.

Lindgaard, A. & Henriksen, S. (2012) Norwegian red list for ecosystems and habitat types Norwegian Biodiversity Centre, Trondheim.

Mucina, L. et al (in press) Vegetation of Europe: Hierarchical floristic classification system of plant, lichen, and algal communities. Applied Vegetation Science.

**Table 1: Summary of proposals**

| EUNIS code | Habitat name | Proposed by | Distribution | ETC/BD Comment |
|---|---|---|---|---|
| C3.2 | Water fringing reedbeds and tall helophytes other than canes | CH | Very widespread<br><br>(including Norway & Eastern Europe) | *Phragmition communis*<br><br>Habitat for many Resolution No. 6 (1998) species, especially birds.<br><br>Considered 'Vulnerable' for Europe in Keith et al (2013)<br><br>Not noted in the Norwegian Red List but present in Norway<br><br>Adding to Resolution No. 4 (1996) would have implications for other countries although likely that relevant sites would be proposed as sites for species. |
| F7.51 | Tomillars on chalk outcrops of eastern Europe [proposed new unit] | UA | Restricted distribution in Ukraine & Russia | Position in EUNIS not clear, Artemisia steppes are currently included under 'E Grasslands and lands dominated by forbs, mosses or lichens' but woody Artemisia might be better considered as part of 'F Heathland, scrub and tundra'. A revision of F is underway and the ETC/BD has asked that this is addressed. (see Demina 2013)<br><br>F7 Spiny Mediterranean heaths (phrygana, hedgehog-heaths and related coastal cliff vegetation) already listed<br><br>Viktor Onyshchenko confirms that the proposal concerns the following alliances<br><br>*Artemisio hololeucae-Hyssopion cretacei* Romashchenko et al. 1996<br><br>*Euphorbio cretophilae-Thymion cretacei* Didukh 1989<br><br>If not included under F7, merits adding to Resolution No. 4 (1996) |

| | | | | |
|---|---|---|---|---|
| G1.41 | *Alnus* Swamp Woods not on acid peat | CH | Very widespread<br><br>(including Norway & Eastern Europe) | Switzerland initially proposed G1.4 *Alnus* swamp woods but G1.4 is Broadleaved swamp woodland<br>After consultation with the national experts, the country agreed with an amended proposal for G1.41 *Alnus swamp woods not on acid peat which corresponds*<br><br>3 sub types already listed<br>G1.4115 Eastern Carpathian *Alnus glutinosa* swamp woods<br>G1.414 Steppe swamp woods<br><br>G1.44 Wet-ground woodland of the Black and Caspian Seas<br><br>Probably 'Near threatened' for Europe<br><br>'Alluvial mire, mire margin & mire woodland' noted as 'NT' in the Norwegian Red List<br><br>Add if other countries agree |
| G3.43 | Inner-Alpine *Ononis* steppe forests | CH | Central and Western Alps | *Ononido rotundifoliae-Pinion sylvestris*<br><br>Probably 'least concern' for Europe but many subtypes are threatened<br><br>Add if other countries agree |
| G3.44 | Alpine Spring heath *Pinus sylvestris* forests | CH | Alps | *Erico carneae -Pinion*<br><br>1 sub type already listed<br><br>G3.442 Carpathian relict calcicolous *Pinus sylvestris* forests<br><br>Distribution for *Erico carneae-Pinion* given as Alps, northern Dinarides and Massif Central in Mucina et al (in press)<br><br>Add if other countries agree |

## Appendix 1: Information forms for five new habitats proposed to be added to Resolution No.4 (1996)

**C3.2 Water fringing reedbeds and other tall helophytes other than canes**

**Date:** 30.06.2014

**Proposed by:** Switzerland

Information Form for species or habitats to be included in:

☐ **Appendix I:** Strictly protected flora species

☐ **Appendix II:** Strictly protected fauna species

☐ **Appendix III:** Protected fauna species

and

☐ **Resolution (1998) 6:** Species requiring specific habitat conservation measures

or

☒ **Resolution (1996) 4:** Endangered natural habitats requiring conservation measures

**Habitat proposal**

EUNIS Habitat code: **C3.2**

**1. Habitat title: Water fringing reedbeds and other tall helophytes other than canes**

Habitat Definition: (only if a new subdivision in the EUNIS classification is suggested)

**Proposal for amending Res. 6 or Res. 4: additional information needed**

**Name of Biogeographical Region(s) in which the species or habitat occurs** (please mark with "x")

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ☒ | **Alpine** | ☐ | **Anatolian** | ☐ | **Artic** | ☒ | **Atlantic** |
| ☒ | **Black Sea** | ☒ | **Boreal** | ☒ | **Continental** | ☐ | **Macaronesia** |
| ☒ | **Mediterranean** | ☒ | **Pannonic** | ☒ | **Steppic** | | |

**Marine region: (if a marine region map is adopted by the SC):**

**Is the Species or Habitat present in EUR 27**: ☒ Yes ☐ No

**Other International Conventions, Instruments and Agreements:**
(Please mark with "x" if mentioned)

Convention on Migratory Species (Bonn Convention):
Annex I ☐
Annex II ☐

Convention on International Trade in Endangered Species of wild fauna and flora (CITES):
Annex 1 ☐
Annex 2 ☐

Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR)
Ref. 2008-6 part 1 ☐
Ref. 2008-6 part 2 ☐

Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

| | |
|---|---|
| Annex I | ☐ |
| Annex II | ☐ |
| Annex IV | ☐ |
| Annex V | ☐ |

Directive 2009/147/EC (79/409/EEC amended) on the conservation of wild birds

| | |
|---|---|
| Annex I | ☐ |
| Annex II | ☐ |
| Annex III | ☐ |

Other: (Barcelona Convention, IUCN red data books, etc ……)

**Short Description / Distinguishing Characteristics**

**European Interest**
**Please mark with "X" for which of the following criteria the species or habitat is proposed (as interpreted from the guideline 1 in the Bern Convention's Recommendation 56 (1997), and also indicated in subparagraphs of Article 1 g of the Habitats Directive)**

☐ *Endangered*, except those species whose natural range is marginal in that territory and which are not endangered or vulnerable in the Western Palaearctic Region

☒ *Vulnerable*, i.e. believed likely to move into the endangered category in the near future if the causal factors continue operating

☐ *Rare*, with small populations that are not at present endangered or vulnerable but at risk. The species is located within restricted geographical areas or are thinly scattered over a more extensive range

☐ *Endemic* and requiring attention by reason or the specific nature of its habitat or the potential impact of its exploitation on its habitat or the potential impact of its conservation status

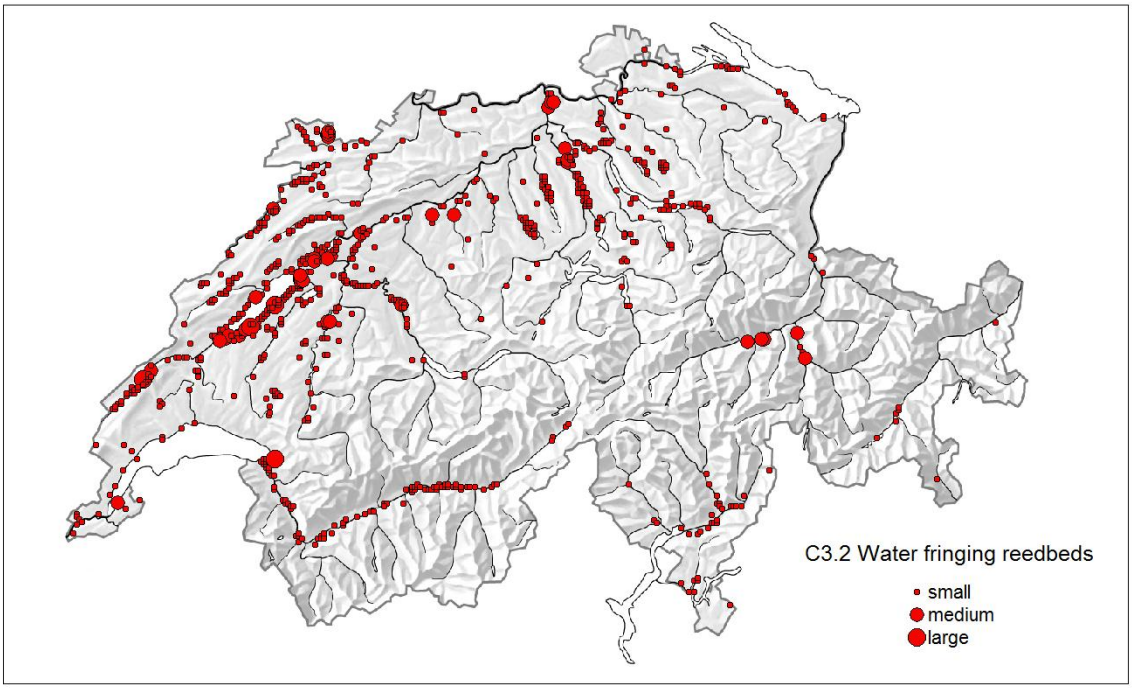
**Remarks**:
as described in Recommendation 56 (1997) account will be taken of the category of threat, the vulnerability of the species to changes in its habitat, its particular link with a threatened habitat, the trends and variations in population level and its vulnerability to a possible non sustainable use. Account will be taken of whether the species is declining in the central area of its distribution, or it is only threatened in the border of its range.

**For species only: ecological role (as described in Recommendation 56 (1997):** account will be taken of the ecological role of the species, such as their position or role in the food chain (i.e. raptors, insectivorous species such as bats), their structural role in ecosystems (i.e. corals, heathlands) or the fact that endangered species or endangered ecosystems may be highly dependent on them (i.e. marine phanerogams like Posidonia oceanica) or risk to become threatened by their exploitation (like the mollusc Lithophaga lithophaga).

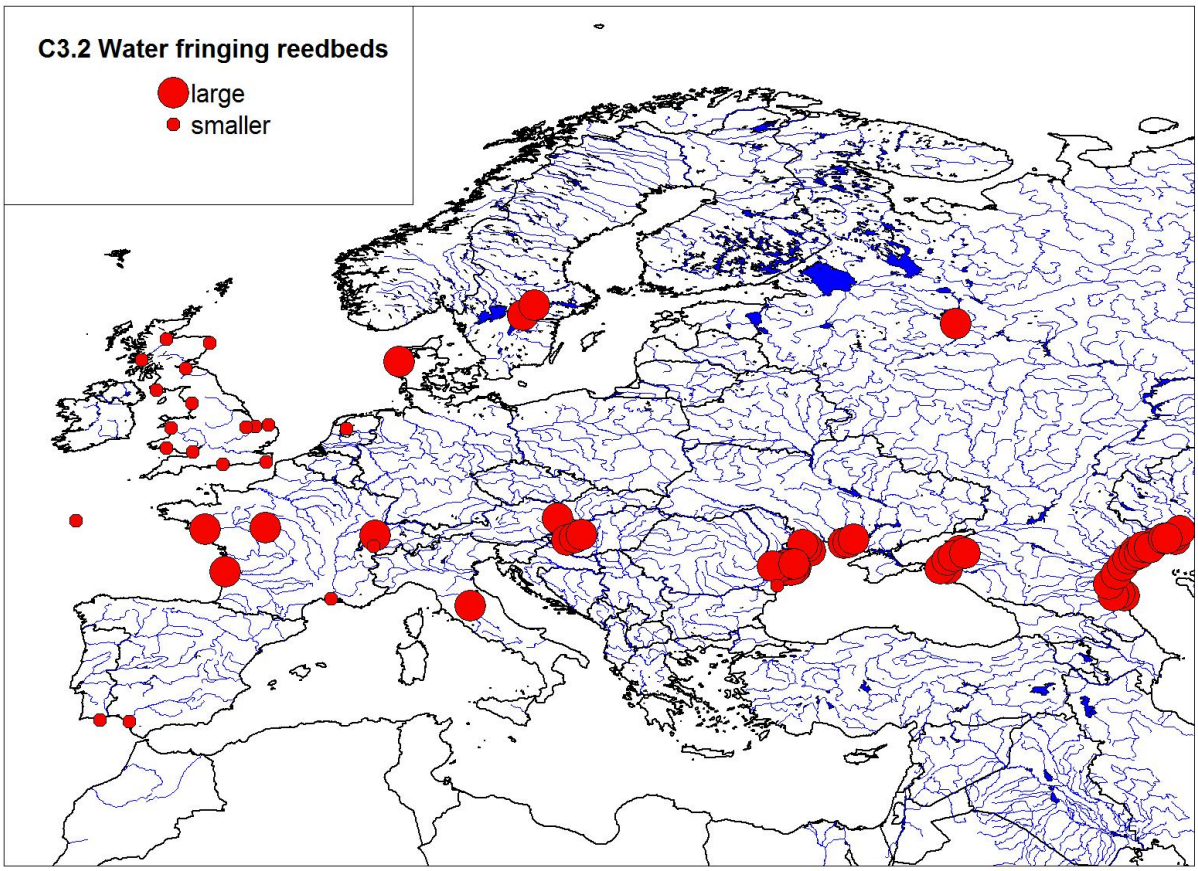
**Geographical distribution**

**In addition, include maps with the distribution of the species or habitat (GIS format preferred), with reference to scale and projection.**

- in the country: Projection: Swiss national system; scale: 1:250 000




- in the Pan-European region: projection: WGS84 ; scale 1:10 000 000



- in other parts of the world: indications of presence of the habitat in North America (Long Island NY, etc.) and in Asia (Tajikistan, Pakistan, etc.). No map available.

**Further comments concerning the geographical distribution :**(e.g. known subtypes, regional varieties, loci typici)

This habit corresponds to the phytosociological alliances of Phragmition, Phalaridion and Oenanthion aquaticae.

Halophilic variants on the coastline. The exact phytosociological status of the forms found in Asia and North America have yet to be specified

**Estimated population size and trends (guideline 1 from Rec. 56 (1997):**
(Indicate the situation in the country(ies) and, as far as possible, European wide and world wide) (according to EEA guidelines for indicating population data)

Estimated size in Switzerland: 15 $km^2$

Estimated size in Europe: approximately 10 000 $km^2$ (Poulin 2013)

**Reasons for decline or threats:** Habitat sensitive to the eutrophisation of water, the artificialisation of banks, the regulation of lake level and navigation-related mechanical disturbances. In Switzerland, historical data suggests that more than 80% of lake reedbeds have disappeared since 1750. The decline over the last 50 years has been estimated at more than 30% (Bergamini 2013). However, over the last ten or so the situation has become more stabilised.

**Conservation status: (within country, region, pan-European level, etc …)**

Switzerland: EN (endangered) according to the red list of threatened habitats in Switzerland, in application of the IUCN criteria (Keith & al. 2013). Dominant criterion: A3 (decrease since 1750). This habitat has been included in Annex 1 to the Federal Ordinance on the Protection of Nature (biotype types deserving protection)

Europe: VU. Determining criteria: A12, A3, D1 (Poulin 2013)

**Important references / literature / publications:**
(especially those relevant for the taxonomy, conservation status and geographical distribution)

Bergamini A. (2013) Marais. In : Delarze R., Bergamini A., Eggenberg S., Guntern J., Hofer G., Sager L., Steiger P., Stucki P. 2013: Liste des habitats prioritaires au niveau national et Liste rouge des habitats de Suisse. Rapport expertise sur mandat de l'Office fédéral de l'environnement (OFEV), Berne: 101 p. plus annexes (p. 102–340).

Delarze R. & Gonseth Y. (2008) Guide des milieux naturels de Suisse. 2e éd. Rossolis. Bussigny. 424 p.

Grechushkina, N.A., A.N. Sorokin and V.B. Golub. (2011). The plant communities with domination of Phragmites australis and Bolboschoenus glaucus in the territory of Russian coast of the Azov Sea. Nauchnyje Soobschchestva, 20(2): 105-115

Keith DA, Rodriguez JP, Rodriguez-Clark KM, Nicholson E, Aapala K, et al. (2013) Scientific Foundations for an IUCN Red List of Ecosystems. PLoS ONE 8(5): e62111. doi: 10.1371 / journal. pone.0062111

Koch, W. (1926). Die Vegetationseinheiten der Linthebene unter Berücksichtigung der Verhältnisse in der Nordostschweiz. – Jahrb. St. Gallischen Naturwiss. Ges. 61(1925): 1–144.

Lang, G. (1990). Die Vegetation des westlichen Bodenseegebietes. – Pflanzensoziologie 17: 1–451.

Poulin B. 2013) European reedbeds. In: Scientific Foundations for an IUCN Red List of Ecosystems. Supplementary material. PlosOne 8(5):66-74.

Wendelberger, G. (1959). Die Vegetation des Neusiedlersee-Gebietes. – Sitzungsberichte. Österreichische Akademie der Wissenschaften, Mathemathisch-Naturwissenschaftliche Klasse. Abteilung I, Biologische Wissenschaften und Erdwissenschaften 168: 305–314.

**Further remarks: (any additional important information not given above, relevant for evaluating the proposal)**

This is a habitat at the interface between the land and water, fulfilling essential functions in the regulation of biogeochemcial cycles and the life cycle of many aquatic and amphibious organisms: reproduction of fish and batrachians, nesting areas for water birds (great crested grebe, etc.).

Species in Appendix II to the Bern Convention closely linked to this habitat: little bittern (Ixobrychus minutus), great bittern (Botaurus stellaris), purple heron (Ardea purpurea), bearded reedling (Panurus biarmicus).

**Picture of species or habitat:**

Lac de Bret VD. *Photo R.Delarze*

Les Grangettes VD *Photo R. Delarze*

**F7.51 Tomillars on chalk outcrops of Eastern Europe [proposed new unit]**

**Date:** June 2014

**Proposed:** Ukraine

Information Form for species or habitats to be included in:

☐ **Appendix I:** Strictly protected flora species

☐ **Appendix II:** Strictly protected fauna species

☐ **Appendix III:** Protected fauna species

and

☐ **Resolution (1998) 6:** Species requiring specific habitat conservation measures

or

X **Resolution (1996) 4:** Endangered natural habitats requiring conservation measures

**Proposed Habitat**

EUNIS Habitat code: **F7.51**

**Habitat title: Tomillars on chalk outcrops of eastern Europe**

Habitat Definition: (only if a new subdivision in the EUNIS classification is suggested) Communities of chamaephytes (*Androsace koso-poljanskii*, *Artemisia hololeuca*, *Thymus cretaceus*, *Helianthemum cretophilum*) on cretaceous outcrops in the steppe and southern forest-steppe zones. The area is located in the Don and (probabely) Volga basins. Other character species: *Jurinea brachycephala*, *Gypsophila oligosperma*, *Asperula tephrocarpa*, *Euphorbia cretophila*, *Helianthemum cretaceum*, *Hyssopus cretaceus*. An admixture of the species of continental steppes is typical. Total plant cover 30-70%.

**Proposal for amending Res. 6 or Res. 4: additional information needed**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ☐ **Alpine** | ☐ | **Anatolian** | ☐ | **Artic** | ☐ | **Atlantic** |
| ☐ **Black Sea** | ☐ | **Boreal** | ☑ | **Continental** | ☐ | **Macaronesia** |
| ☐ **Mediterranean** | ☐ | **Pannonic** | ☑ | **Steppic** | | |

**Marine region: (if a marine region map is adopted by the SC):**

**Is the Species or Habitat present in EUR 27**:

☐ Yes ☑ No

**Other International Conventions, Instruments and Agreements**:
(Please mark with "x" if mentioned)

Convention on Migratory Species (Bonn Convention): Annex I ☐ Annex II ☐

Convention on International Trade in Endangered Species of wild fauna and flora (CITES): Annex 1 ☐ Annex 2 ☐

Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR)

Ref. 2008-6 part 1 ☐
Ref. 2008-6 part 2 ☐

Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

Annex I ☐
Annex II ☐
Annex IV ☐
Annex V ☐

Directive 2009/147/EC (79/409/EEC amended) on the conservation of wild birds

Annex I ☐
Annex II ☐
Annex III ☐

Other: (Barcelona Convention, IUCN red data books, etc ……)

**Short Description / Distinguishing Characteristics**

**European Interest**
**Please mark with "X" for which of the following criteria the species or habitat is proposed (as interpreted from the guideline 1 in the Bern Convention's Recommendation 56 (1997), and also indicated in subparagraphs of Article 1 g of the Habitats Directive)**

☐ *Endangered*, except those species whose natural range is marginal in that territory and which are not endangered or vulnerable in the Western Palaearctic Region

☐ *Vulnerable*, i.e. believed likely to move into the endangered category in the near future if the causal factors continue operating

☑ *Rare*, with small populations that are not at present endangered or vulnerable but at risk. The species is located within restricted geographical areas or are thinly scattered over a more extensive range

☐ *Endemic* and requiring attention by reason or the specific nature of its habitat or the potential impact of its exploitation on its habitat or the potential impact of its conservation status

**Remarks:**
as described in Recommendation 56 (1997) account will be taken of the category of threat, the vulnerability of the species to changes in its habitat, its particular link with a threatened habitat, the trends and variations in population level and its vulnerability to a possible non sustainable use. Account will be taken of whether the species is declining in the central area of its distribution, or it is only threatened in the border of its range.

**Geographical distribution**

Forest-steppe and steppe zones in the Don and Volga basins. In Ukraine: Kharkiv, Luhansk and Donetsk regions. In Russia: Belgorod, Lipetsk, Voronezh, Rostov, Saratov regions.

**In addition, include maps with the distribution of the species or habitat (GIS format preferred), with reference to scale and projection.**

- in the country:

- in the Pan-European region:

Probable distribution of the habitat


- in other parts of the world:

**Further comments concerning the geographical distribution :**(e.g. known subtypes, regional varieties, loci typici)

**Estimated population size and trends (guideline 1 from Rec. 56 (1997):**
(Indicate the situation in the country(ies) and, as far as possible, European wide and world wide) (according to EEA guidelines for indicating population data)

Total worldwide habitat's area is likely a few thousand ha. Besides 10-20 thousands ha are covered by communities transitional to continental steppes and sparsely vegetated cretaceous outcrops with the presence of the same species.

**Reasons for decline or threats:**
This habitat always was rare. Main modern threats: aforestation and mining

**Conservation status: (within country, region, pan-European level, etc …)**

Some plant communities from this habitat are under protection in the Green Book of Ukraine (107. Hyssopeta cretacei; 110. Artemisieta hololeucae; 111. Hedysareta cretacei; 112. Helianthemeta cani)

**Important references / literature / publications:**
Especially those relevant for the taxonomy, conservation status and geographical distribution

Ромащенко К.Ю., Дідух Я.П., Соломаха В.А. Синтаксономія класу Helianthemo-Thymetea cl. nov. рослинності крейдяних відслонень південно-східної України // Український фітоценологічний збірник, сер. А. – 1996. – 1. – С. 49-62.

In English
(Romashchenko R.Yu., Didukh Ya.P., Solomakha V.A. Syntaxonomy of the class Helianthemo-Thymetea cl. nov. Of the south-eastern Ukraine cretaceous grasslands // Ukrainian phytososiological collection, ser. A. – 1996. – 1. – P. 49-62)

**Further remarks: (any additional important information not given above, relevant for evaluating the proposal)**
Species from IUCN Red List: *Androsace koso-poljanskii* Ovcz. (R), *Artemisia hololeuca* Bieb. ex Bess. (Vu), *Asperula tephrocarpa* Czern. ex M.Pop.et Chrshan. (R), *Astragalus tanaiticus* C.Koch (Vu), *Daphne sophia* Kalen. (R), *Erysimum ucrainicum* J. Gay (R), *Genista tanaitica* P. Smirn. (I), *Hedysarum cretaceum* Fisch. (R), *Hedysarum ucrainicum* Kaschm. (R), *Onobrychis vassilczenkoi* Grossh. (R), *Pinus cretacea* Kalenicz. (I), *Scrophularia cretacea* Fisch. ex Spreng. (I), *Silene cretacea* Fisch. ex Spreng. (I).

**Picture of species or habitat:**

**Contact Person(s) for additional questions concerning this species or habitat:**
**(if multi-country proposal, please add relevant persons for each country)**

Name: Onyshchenko Viktor Alimovych
Institution: M.G. Kholodny Institute of Botany of National Academy of Sciences of Uktaine
Postal Address: Institute of Botany, 01601, 2 Tereshchenkivska str., Kyiv, Ukraine

Country: Ukraine Phone No: +38044 2723220

Fax No: +38044 2723220 E-mail: labzap@ukr.net , V.A.Onyshchenko@mail.ru

**If not identical with Contact Person, author of this data form:**

Name: ……..

Institution: ……

Postal Address: ……

Country: ……..
Phone No: ……..
Fax No: ……

E-mail: ……

**G1.4 *Alnus* swamp woods**

**Date:** 30.06.2014

**Proposed by:** Switzerland

Information Form for species or habitats to be included in:

☐ **Appendix I:** Strictly protected flora species

☐ **Appendix II:** Strictly protected fauna species

☐ **Appendix III:** Protected fauna species

and

☐ **Resolution (1998) 6:** Species requiring specific habitat conservation measures

or

☒ **Resolution (1996) 4:** Endangered natural habitats requiring conservation measures

**Habitat proposal**

EUNIS Habitat code: **G1.4**

**2. Habitat title: Alnus swamp woods**

Habitat Definition: (only if a new subdivision in the EUNIS classification is suggested) …….

**Proposal for amending Res. 6 or Res. 4: additional information needed**

**Name of Biogeographical Region(s) in which the species or habitat occurs** (please mark with "x")

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ☒ | **Alpine** | ☐ | **Anatolian** | ☐ | **Artic** | ☒ | **Atlantic** |
| ☐ | **Black Sea** | ☒ | **Boreal** | ☒ | **Continental** | ☐ | **Macaronesia** |
| ☐ | **Mediterranean** | ☒ | **Pannonic** | ☐ | **Steppic** | | |

**Marine region: (if a marine region map is adopted by the SC):**

**Is the Species or Habitat present in EUR 27**: ☒ Yes ☐ No

**Other International Conventions, Instruments and Agreements:**
(Please mark with "x" if mentioned)

Convention on Migratory Species (Bonn Convention):
Annex I ☐
Annex II ☐

Convention on International Trade in Endangered Species of wild fauna and flora (CITES):
Annex 1 ☐
Annex 2 ☐

Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR)
Ref. 2008-6 part 1 ☐
Ref. 2008-6 part 2 ☐

Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

| | |
|---|---|
| Annex I | ☐ |
| Annex II | ☐ |
| Annex IV | ☐ |
| Annex V | ☐ |

Directive 2009/147/EC (79/409/EEC amended) on the conservation of wild birds

| | |
|---|---|
| Annex I | ☐ |
| Annex II | ☐ |
| Annex III | ☐ |

Other: (Barcelona Convention, IUCN red data books, etc ……)

**Short Description / Distinguishing Characteristics**

**European Interest**
**Please mark with "X" for which of the following criteria the species or habitat is proposed (as interpreted from the guideline 1 in the Bern Convention's Recommendation 56 (1997), and also indicated in subparagraphs of Article 1 g of the Habitats Directive)**

☐ *Endangered*, except those species whose natural range is marginal in that territory and which are not endangered or vulnerable in the Western Palaearctic Region

☐ *Vulnerable*, i.e. believed likely to move into the endangered category in the near future if the causal factors continue operating

☒ *Rare*, with small populations that are not at present endangered or vulnerable but at risk. The species is located within restricted geographical areas or are thinly scattered over a more extensive range

☐ *Endemic* and requiring attention by reason or the specific nature of its habitat or the potential impact of its exploitation on its habitat or the potential impact of its conservation status

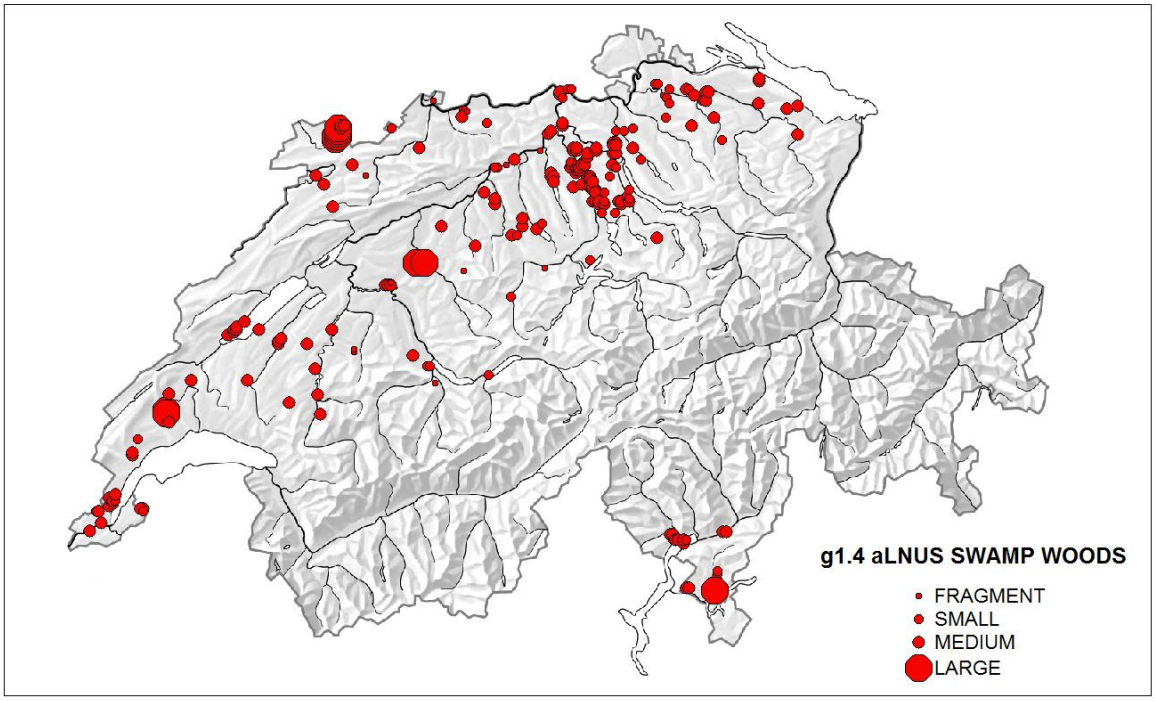
**Remarks**:
as described in Recommendation 56 (1997) account will be taken of the category of threat, the vulnerability of the species to changes in its habitat, its particular link with a threatened habitat, the trends and variations in population level and its vulnerability to a possible non sustainable use. Account will be taken of whether the species is declining in the central area of its distribution, or it is only threatened in the border of its range.

**For species only: ecological role (as described in Recommendation 56 (1997):** account will be taken of the ecological role of the species, such as their position or role in the food chain (i.e. raptors, insectivorous species such as bats), their structural role in ecosystems (i.e. corals, heathlands) or the fact that endangered species or endangered ecosystems may be highly dependent on them (i.e. marine phanerogams like Posidonia oceanica) or risk to become threatened by their exploitation (like the mollusc Lithophaga lithophaga).

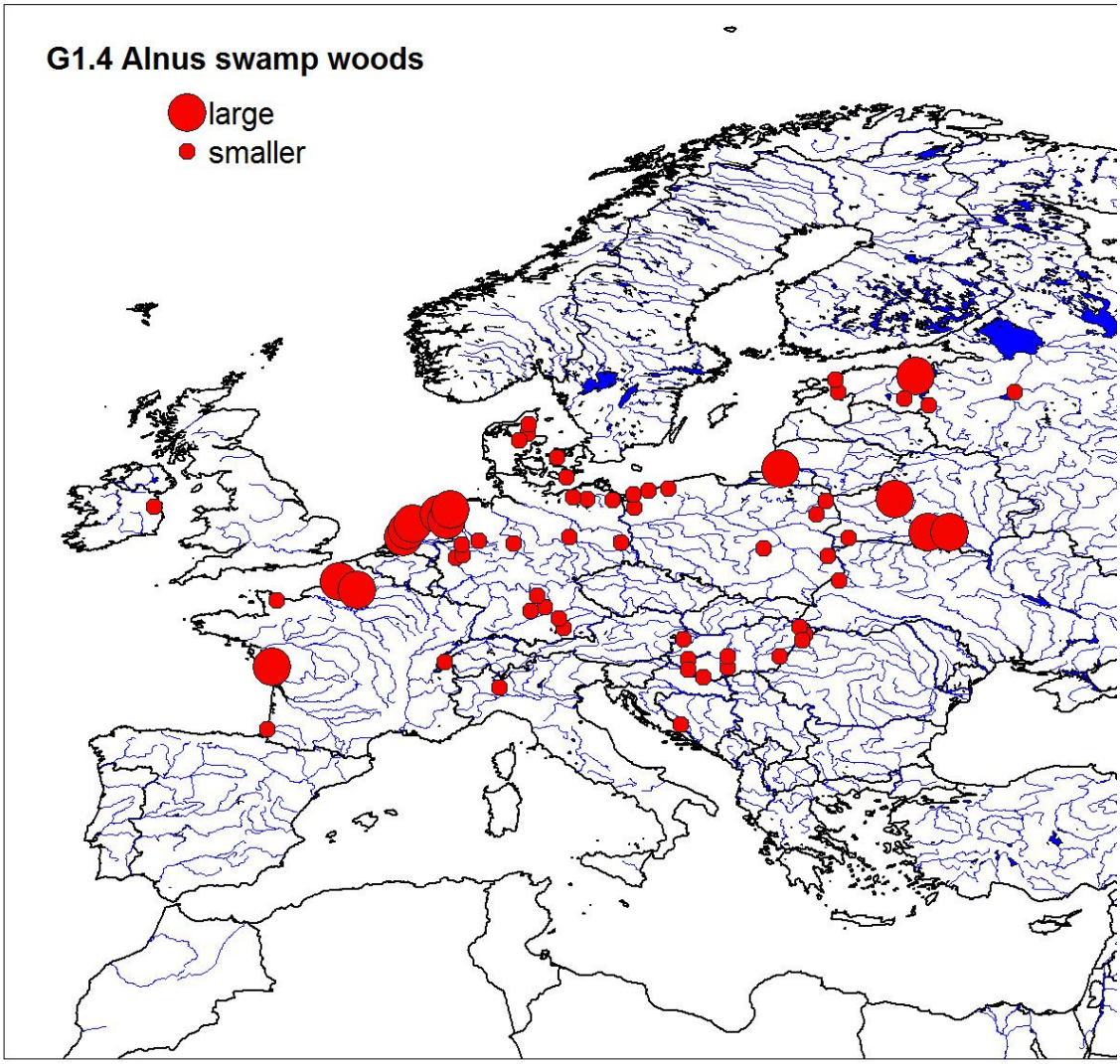
**Geographical distribution**

**In addition, include maps with the distribution of the species or habitat (GIS format preferred), with reference to scale and projection.**

- in the country: Projection: National co-ordinate system; scale: 1:2 500 000




- in the Pan-European region: projection WGS84; scale: 1:25 000 000




- in other parts of the world: **found only in Europe**

**Further comments concerning the geographical distribution :**(e.g. known subtypes, regional varieties, loci typici)

This habitat covers large stretches in northern Europe where it is not under threat. However, it is reduced to small isolated areas in central parts of Europe and has practically disappeared in southern Europe.

**Estimated population size and trends (guideline 1 from Rec. 56 (1997):**
(Indicate the situation in the country(ies) and, as far as possible, European wide and world wide) (according to EEA guidelines for indicating population data)

Switzerland: 3 $km^2$, or 0.07% of the national territory

Europe: 33 000 $km^2$ (according to the Map of natural vegetation of Europe, Bundesamt für Naturschutz. http://www.floraweb.de/vegetation/dnld_eurovegmap.html ).

**Reasons for decline or threats:**

Associated with particular edaphological and hydrographic conditions (forest flood basins), this habitat is sensitive to drainage, filling and inappropriate forest interventions. Because of the very

small area it covers nationally and the small size of the sites concerned, it is particularly vulnerable to any disturbances.

**Conservation status: (within country, region, pan-European level, etc …)**

In Switzerland, the habitat is endangered (EN) and appears on the national red list of threatened habitats (Steiger 2013: IUCN criteria: A1, A3. B4). It is also included in Annex 1 of the Federal Ordinance on the Protection of Nature (biotype types deserving protection)

In Europe, the habitat as a whole is near threatened (NT), at least in half of the southern area that it covers, in which there are numerous associations with a small distribution range (see for example Bailly 2012) which probably have a higher threat status.

**Important references / literature / publications:**
(especially those relevant for the taxonomy, conservation status and geographical distribution)

Bailly G. (2012) Contribution à l'étude des aulnaies marécageuses comtoises. Nouv. Arch. Flore jurass. Et du nord-est de la france. 10: 57-102.

Delarze R. & Gonseth Y. (2008) Guide des milieux naturels de Suisse. 2e éd. Rossolis. Bussigny. 424 p.

Klika, J. (1939/1940). Die Pflanzengesellschaften des Alnion-Verbandes. – Preslia 18/19: 97–112, 19.

Solińska-Górnicka, B. (1987). Alder (Alnus glutinosa) carr in Poland. – Tuexenia 7: 329–346.

Steiger P. (2010) Wälder der Schweiz. Von Lindengrün zu Lärchengold. Vielfalt der Waldbilder und Waldgesellschaften in der Schweiz. Ott Verlag, Thun, 464 p.

Steiger P. (2013) Forêts. In : Delarze R., Bergamini A., Eggenberg S., Guntern J., Hofer G., Sager L., Steiger P., Stucki P. 2013: Liste des habitats prioritaires au niveau national et Liste rouge des habitats de Suisse. Rapport expertise sur mandat de l'Office fédéral de l'environnement (OFEV), Berne: 101 p. plus annexes (p. 102–340).

Stortelder, A. H. F.; Hommel, P. W. F. M. & Schaminée, J. H. J. (1999a).Alnetea glutinosae. – In: Stortelder, A. H. F.; Schaminée, J. H. J. & Hommel, P. W. F. M. : De vegetatie van Nederland. Deel 5. Plantengemeenschappen van ruigten, struwelen en bossen. – Uppsala (Opulus Press) p. 189–210.

**Further remarks: (any additional important information not given above, relevant for evaluating the proposal)**

This habitat corresponds to the phytosociological habitat of Alnion glutinosae.

It is home to various outstanding plants whose habitat deserves to be preserved: Carex elongata, Calla palustris, Osmunda regalis, Dryopteris cristata, Thelypteris palustris, Hottonia palustris, Iris pseudacorus, Ophioglossum vulgatum.

It is the main reproduction biotope for two species of batrachians included on Appendix II of the Bern Convention: Triturus cristatus and Rana dalmatina.

**Picture of species or habitat:**

Bois de Chênes VD *Photo R.Delarze*

**Contact Person(s) for additional questions concerning this species or habitat:**
**(if multi-country proposal, please add relevant persons for each country)**

Name: Pearson Sarah ……..
Institution: Federal Office for the Environment (FOEN)……
Postal Address: 3003 Bern……...

Country: Switzerland…….. Phone No: …….
Fax No: …… E-mail: ……..

**If not identical with Contact Person, author of this data form:**

Name: Delarze Raymond

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Country: Suisse
Phone No: 0041 24 4669150
Fax No: 0041 24 4670075

E-mail: delarze.raymond@bluewin.ch

**G3.43 Inner-Alpine *Ononis* Steppe Forests**

**DATE:** 30.06.2014

**Proposed by:** Switzerland

| Information Form for species or habitats to be included in: | | |
|---|---|---|
| ☐ | **Appendix I:** | Strictly protected flora species |
| ☐ | **Appendix II:** | Strictly protected fauna species |
| ☐ | **Appendix III:** | Protected fauna species |
| | and | |
| ☐ | **Resolution (1998) 6:** | Species requiring specific habitat conservation measures |
| | or | |
| ☒ | **Resolution (1996) 4:** | Endangered natural habitats requiring conservation measures |

| **Habitat proposal** |
|---|
| EUNIS Habitat code: G3.43<br><br>**3. Habitat title: Inner-Alpine Ononis Steppe Forests**<br><br>Habitat Definition: (only if a new subdivision in the EUNIS classification is suggested) |

**Proposal for amending Res. 6 or Res. 4: additional information needed**

**Name of Biogeographical Region(s) in which the species or habitat occurs** (please mark with "x")

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ☒ | **Alpine** | ☐ | **Anatolian** | ☐ | **Artic** | ☐ | **Atlantic** |
| ☐ | **Black Sea** | ☐ | **Boreal** | ☐ | **Continental** | ☐ | **Macaronesia** |
| ☐ | **Mediterranean** | ☐ | **Pannonic** | ☐ | **Steppic** | | |

**Marine region: (if a marine region map is adopted by the SC):**

**Is the Species or Habitat present in EUR 27**: ☒ Yes ☐ No

**Other International Conventions, Instruments and Agreements:**
(Please mark with "x" if mentioned)

Convention on Migratory Species (Bonn Convention): Annex I ☐ Annex II ☐

Convention on International Trade in Endangered Species of wild fauna and flora (CITES): Annex 1 ☐ Annex 2 ☐

Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) Ref. 2008-6 part 1 ☐ Ref. 2008-6 part 2 ☐

Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

| | |
|---|---|
| Annex I | ☐ |
| Annex II | ☐ |
| Annex IV | ☐ |
| Annex V | ☐ |

Directive 2009/147/EC (79/409/EEC amended) on the conservation of wild birds

| | |
|---|---|
| Annex I | ☐ |
| Annex II | ☐ |
| Annex III | ☐ |

Other: (Barcelona Convention, IUCN red data books, etc ……)

**Short Description / Distinguishing Characteristics**

**European Interest**
**Please mark with "X" for which of the following criteria the species or habitat is proposed (as interpreted from the guideline 1 in the Bern Convention's Recommendation 56 (1997), and also indicated in subparagraphs of Article 1 g of the Habitats Directive)**

☐ *Endangered*, except those species whose natural range is marginal in that territory and which are not endangered or vulnerable in the Western Palaearctic Region

☐ *Vulnerable*, i.e. believed likely to move into the endangered category in the near future if the causal factors continue operating

☒ *Rare*, with small populations that are not at present endangered or vulnerable but at risk. The species is located within restricted geographical areas or are thinly scattered over a more extensive range

☐ *Endemic* and requiring attention by reason or the specific nature of its habitat or the potential impact of its exploitation on its habitat or the potential impact of its conservation status

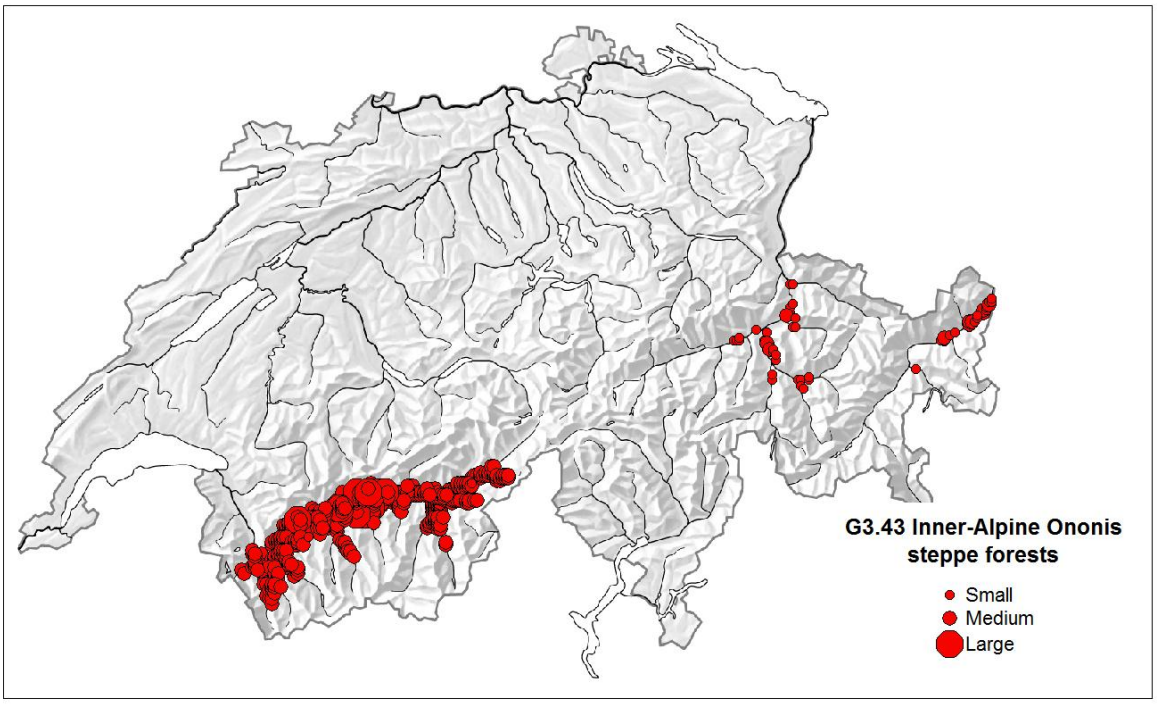
**Remarks**:
as described in Recommendation 56 (1997) account will be taken of the category of threat, the vulnerability of the species to changes in its habitat, its particular link with a threatened habitat, the trends and variations in population level and its vulnerability to a possible non sustainable use. Account will be taken of whether the species is declining in the central area of its distribution, or it is only threatened in the border of its range.

**For species only: ecological role (as described in Recommendation 56 (1997):** account will be taken of the ecological role of the species, such as their position or role in the food chain (i.e. raptors, insectivorous species such as bats), their structural role in ecosystems (i.e. corals, heathlands) or the fact that endangered species or endangered ecosystems may be highly dependent on them (i.e. marine phanerogams like Posidonia oceanica) or risk to become threatened by their exploitation (like the mollusc Lithophaga lithophaga).

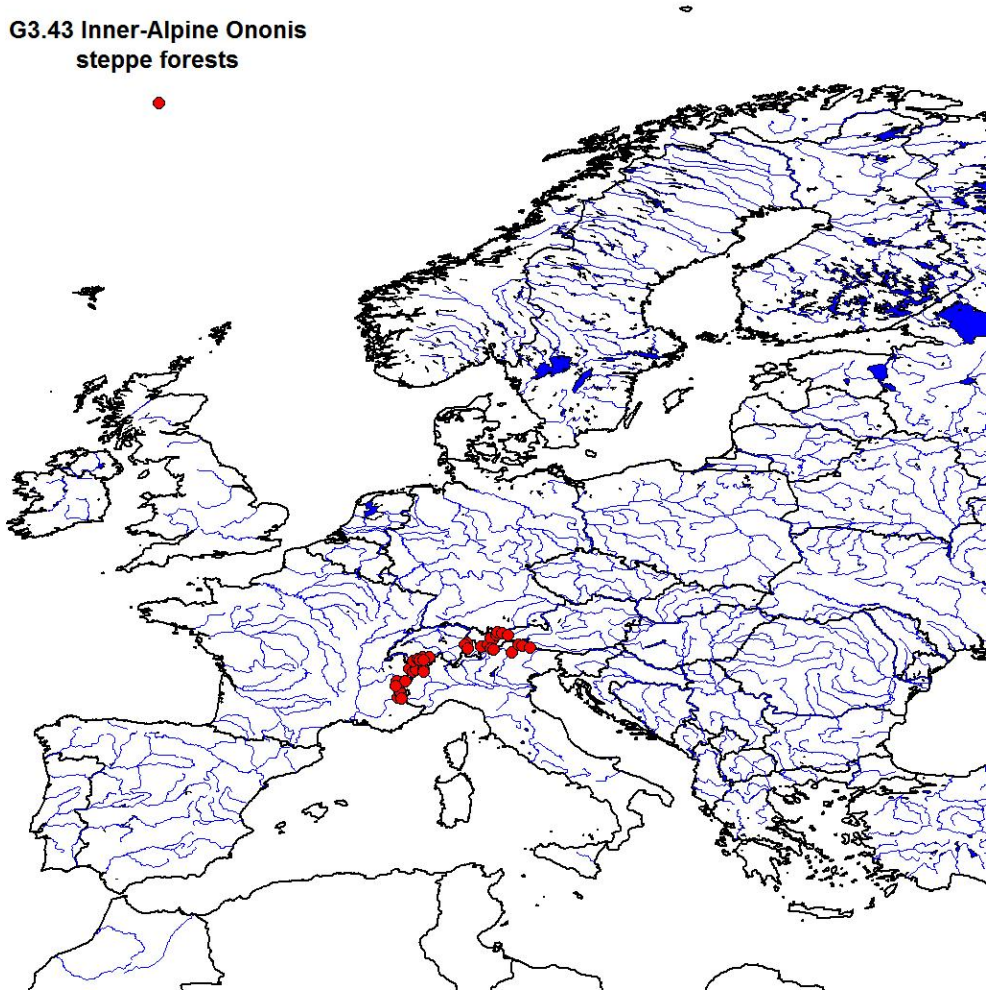
**Geographical distribution**

**In addition, include maps with the distribution of the species or habitat (GIS format preferred), with reference to scale and projection.**

- in the country: Projection: National co-ordinate system; scale: 1:2 500 000




- in the Pan-European region: projection WGS84 ; scale: 1:25 000 000




- in other parts of the world: **found only in the Alpine region**

**Further comments concerning the geographical distribution :**(e.g. known subtypes, regional varieties, loci typici)

Relict vegetation community resulting from post-glacial colonisation, isolated in small colonies scattered in the intra-Alpine valleys subject to a continental climate. It bears witness to the history of European vegetation, home to many very localised species (plants, insects).

**Estimated population size and trends (guideline 1 from Rec. 56 (1997):**
(Indicate the situation in the country(ies) and, as far as possible, European wide and world wide) (according to EEA guidelines for indicating population data)

In Switzerland: 87 $km^2$ (Steiger 2013)

In Europe: general area of approximately 2400 $km^2$ (according to the Map of natural vegetation of Europe, Bundesamt für Naturschutz. http://www.floraweb.de/vegetation/dnld_eurovegmap.html ) but the effective area is undoubtedly smaller, less than 500 $km^2$.

**Reasons for decline or threats:** A type of habitat which is very exposed to the effects of global warming. Decline observed in Valais over the last twenty years, characterised by the gradual replacement of Scots pines by oaks and increased frequency of forest fires. It is a fragmented habitat with low regeneration capacity. There are several associations, some of which cover only a few $km^2$ in total.

**Conservation status: (within country, region, pan-European level, etc …)**

**In Switzerland**, the habitat as a whole may be classified as near threatened (NT). Certain associations with a small distribution range (Odontito-Pinetum, Carici-Pinetum engadinensis) are endangered (EN) according to the national red list (Steiger 2013), drawn up in line with the IUCN criteria (Keith & al. 2013).

**In Europe**, the habitat as a whole is probably not threatened, but certain very localised associations are possibly so (DD). Large areas have been replaced by plantation of Pinus nigra, particularly in Italy.

**Important references / literature / publications:**
(especially those relevant for the taxonomy, conservation status and geographical distribution)

Bartoli, C. (1966). Étude écologique sur les associations végétales forestières de la Haute-Maurienne. – Annales des sciences forestières 23(3): 432–751.

Braun-Blanquet, J. (1961). Die inneralpine Trockenvegetation von der Provence bis zur Steiermark. – Stuttgart (G. Fischer) 273 Stuttgart

Braun-Blanquet, J.; Pallmann, H. & Bach, R. (1954). Pflanzensoziologische und bodenkundliche Untersuchungen im Schweizerischen Nationalpark und seinen Nachbargebieten. II. Vegetation und Böden der Wald- und Zwergstrauchgesellschaften (Vaccinio-Piceetalia). – Ergebn. Wiss. Untersuch. Schweiz. Nationalpark 4: 1–200.

Braun-Blanquet, J. & Richard, F. (1949). Groupements végétaux et sols du bassin de Sierre. – Bull. Murith. Soc. Valais. Sci. Nat. 64: 106–134.

Delarze R. & Gonseth Y. (2008) Guide des milieux naturels de Suisse. 2e éd. Rossolis. Bussigny. 424 p.

Hölzel, N. (1996a). Schneeheide-Kiefernwälder in den mittleren Nördlichen Kalkalpen. – Laufener Forschungsberichte 3: 192

Hölzel, N. (1996b). Erico-Pinetea (H6), Alpisch-Dinarische Karbonat-Kiefernwälder [= Synopsis der Pflanzengesellschaften Deutschlands 1]. – Göttingen (Floristisch-soziologische Arbeitsgemein-schaft und Reinhold-Tüxen-Gesellschaft) 49 S.

Keith DA, Rodriguez JP, Rodriguez-Clark KM, Nicholson E, Aapala K, et al. (2013) Scientific Foundations for an IUCN Red List of Ecosystems. PLoS ONE 8(5): e62111. doi: 10.1371 / journal. pone.0062111

Plumettaz Clot, A.-C. (1988). Phyto-écologie des pinèdes valaisannes et contribution le taxonomie du genre Pinus. – Lausanne (Thèse, Lausanne) 369 p.

Schmid, E. (1936). Die Reliktföhrenwälder der Alpen. – Beitr. Geobot. Landesaufn. Schweiz 21: 1–190.

Steiger P. (2010) Wälder der Schweiz. Von Lindengrün zu Lärchengold. Vielfalt der Waldbilder und Waldgesellschaften in der Schweiz. Ott Verlag, Thun, 464 p.

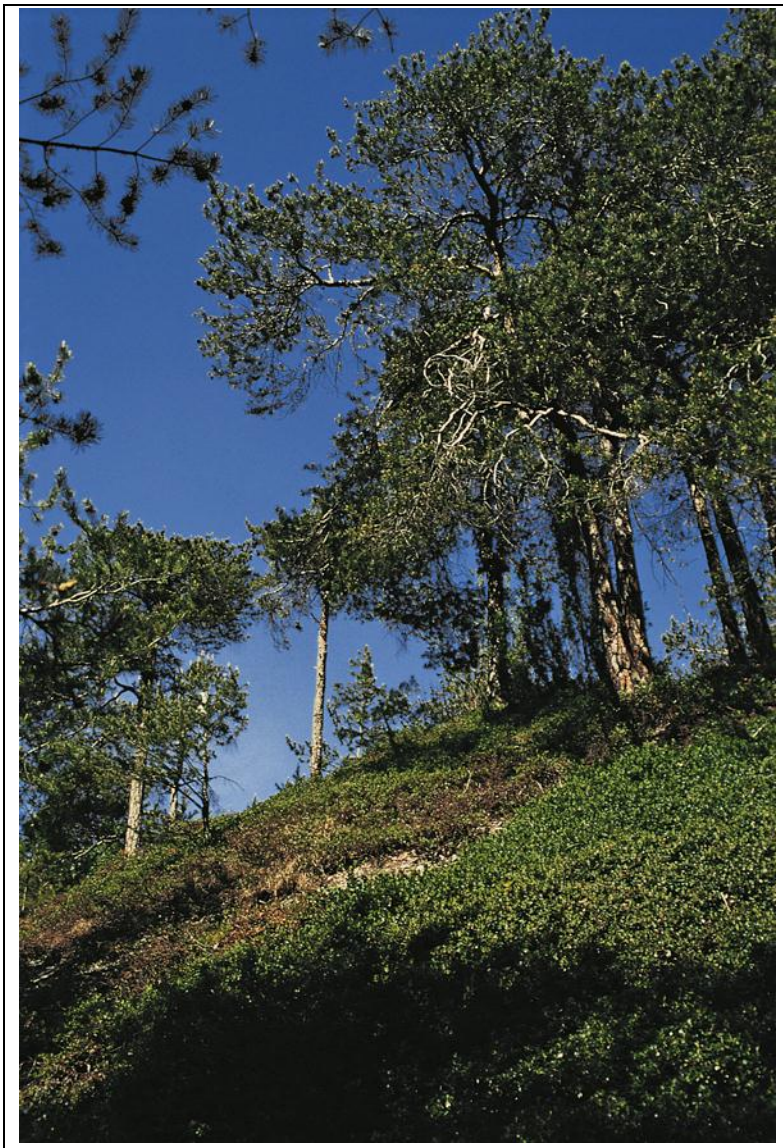
Steiger P. (2013) Forêts. In : Delarze R., Bergamini A., Eggenberg S., Guntern J., Hofer G., Sager L., Steiger P., Stucki P. 2013: Liste des habitats prioritaires au niveau national et Liste rouge des habitats de Suisse. Rapport expertise sur mandat de l'Office fédéral de l'environnement (OFEV), Berne: 101 p. plus annexes (p. 102–340).

Wagner, H. (1979). Das Virgental/Osttirol, eine bisher zu wenig beachtete inneralpine Trockeninsel. – Phytocoenologia 6: 303–316.

**Further remarks: (any additional important information not given above, relevant for evaluating the proposal)**

Numerous relict species of high heritage value are to be found in this habitat: Astragalus exscapus, Astragalus alopecurus, Odontites viscosa, Astragalus vesicarius subsp. pastellianus, Ononis rotundifolia, Oxytropis halleri subsp. velutina, Juniperus thurifera.

**Picture of species or habitat:**



Bois de Finges *VS Photo R. Delarze*

**Contact Person(s) for additional questions concerning this species or habitat:**
**(if multi-country proposal, please add relevant persons for each country)**

Name: Pearson Sarah ……..
Institution: Federal Office for the Environement (FOEN)……
Postal Address: 3003 Bern……...

Country: Switzerland…….. Phone No: …….
Fax No: …… E-mail: ……..

**If not identical with Contact Person, author of this data form:**

Name: Delarze Raymond

Institution: BEB sa Bureau d'études biologiques

Postal Address: 6, Chemin des Artisans. CH-1860 Aigle

Country: Switzerland
Phone No: 0041 24 4669150
Fax No: 0041 24 4670075

E-mail: delarze.raymond@bluewin.ch

**G3.44 Alpine Spring heath *Pinus sylvestris* forests**

**DATE:** 30.06.2014

**Proposed by:** Switzerland

Information Form for species or habitats to be included in:

☐ **Appendix I:** Strictly protected flora species

☐ **Appendix II:** Strictly protected fauna species

☐ **Appendix III:** Protected fauna species

and

☐ **Resolution (1998) 6:** Species requiring specific habitat conservation measures

or

☒ **Resolution (1996) 4:** Endangered natural habitats requiring conservation measures

**Habitat proposal**

EUNIS Habitat code: **G3.44**

**4. Habitat title: Alpine Spring heath Pinus sylvestris forests**

Habitat Definition: (only if a new subdivision in the EUNIS classification is suggested) …….

**Proposal for amending Res. 6 or Res. 4: additional information needed**

**Name of Biogeographical Region(s) in which the species or habitat occurs** (please mark with "x")

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ☒ **Alpine** | ☐ | **Anatolian** | ☐ | **Artic** | ☐ | **Atlantic** | |
| ☐ **Black Sea** | ☐ | **Boreal** | ☒ | **Continental** | ☐ | **Macaronesia** | |
| ☐ **Mediterranean** | ☐ | **Pannonic** | ☐ | **Steppic** | | | |

**Marine region: (if a marine region map is adopted by the SC):**

**Is the Species or Habitat present in EUR 27**: ☒ Yes ☐ No

**Other International Conventions, Instruments and Agreements:**
(Please mark with "x" if mentioned)

Convention on Migratory Species (Bonn Convention):
Annex I ☐
Annex II ☐

Convention on International Trade in Endangered Species of wild fauna and flora (CITES):
Annex 1 ☐
Annex 2 ☐

Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR)
Ref. 2008-6 part 1 ☐
Ref. 2008-6 part 2 ☐

Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

| | |
|---|---|
| Annex I | ☐ |
| Annex II | ☐ |
| Annex IV | ☐ |
| Annex V | ☐ |

Directive 2009/147/EC (79/409/EEC amended) on the conservation of wild birds

| | |
|---|---|
| Annex I | ☐ |
| Annex II | ☐ |
| Annex III | ☐ |

Other: (Barcelona Convention, IUCN red data books, etc ……)

**Short Description / Distinguishing Characteristics**

**European Interest**
**Please mark with "X" for which of the following criteria the species or habitat is proposed (as interpreted from the guideline 1 in the Bern Convention's Recommendation 56 (1997), and also indicated in subparagraphs of Article 1 g of the Habitats Directive)**

☐ *Endangered*, except those species whose natural range is marginal in that territory and which are not endangered or vulnerable in the Western Palaearctic Region

☐ *Vulnerable*, i.e. believed likely to move into the endangered category in the near future if the causal factors continue operating

☒ *Rare*, with small populations that are not at present endangered or vulnerable but at risk. The species is located within restricted geographical areas or are thinly scattered over a more extensive range

☐ *Endemic* and requiring attention by reason or the specific nature of its habitat or the potential impact of its exploitation on its habitat or the potential impact of its conservation status

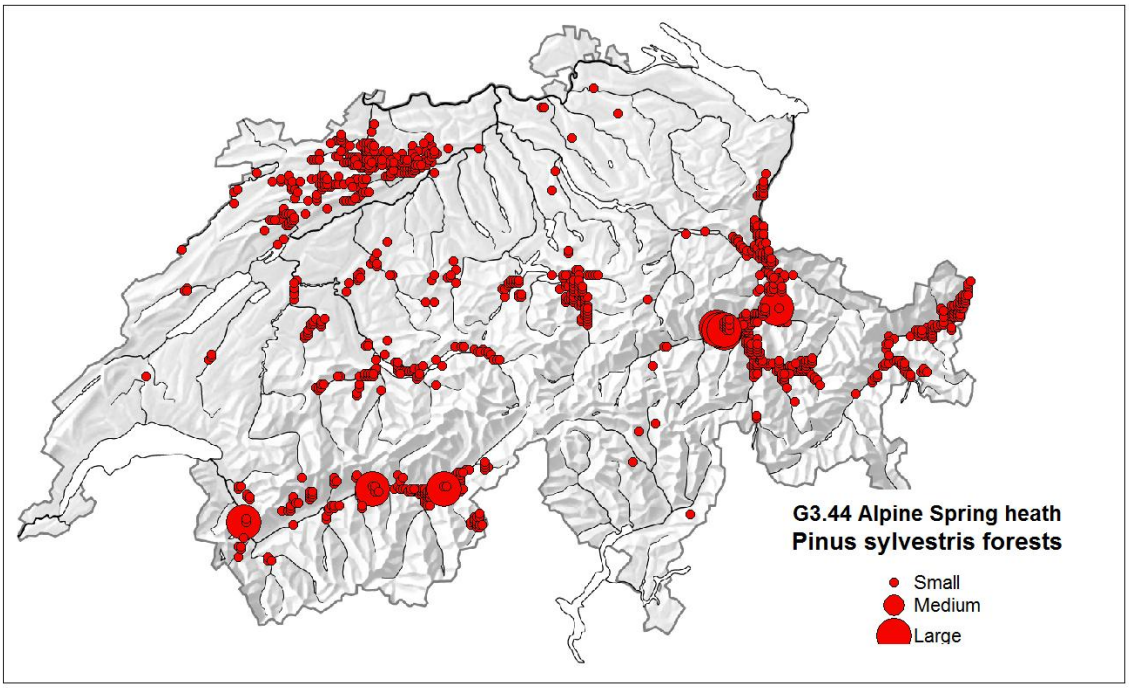
**Remarks**:
as described in Recommendation 56 (1997) account will be taken of the category of threat, the vulnerability of the species to changes in its habitat, its particular link with a threatened habitat, the trends and variations in population level and its vulnerability to a possible non sustainable use. Account will be taken of whether the species is declining in the central area of its distribution, or it is only threatened in the border of its range.

**For species only: ecological role (as described in Recommendation 56 (1997):** account will be taken of the ecological role of the species, such as their position or role in the food chain (i.e. raptors, insectivorous species such as bats), their structural role in ecosystems (i.e. corals, heathlands) or the fact that endangered species or endangered ecosystems may be highly dependent on them (i.e. marine phanerogams like Posidonia oceanica) or risk to become threatened by their exploitation (like the mollusc Lithophaga lithophaga).

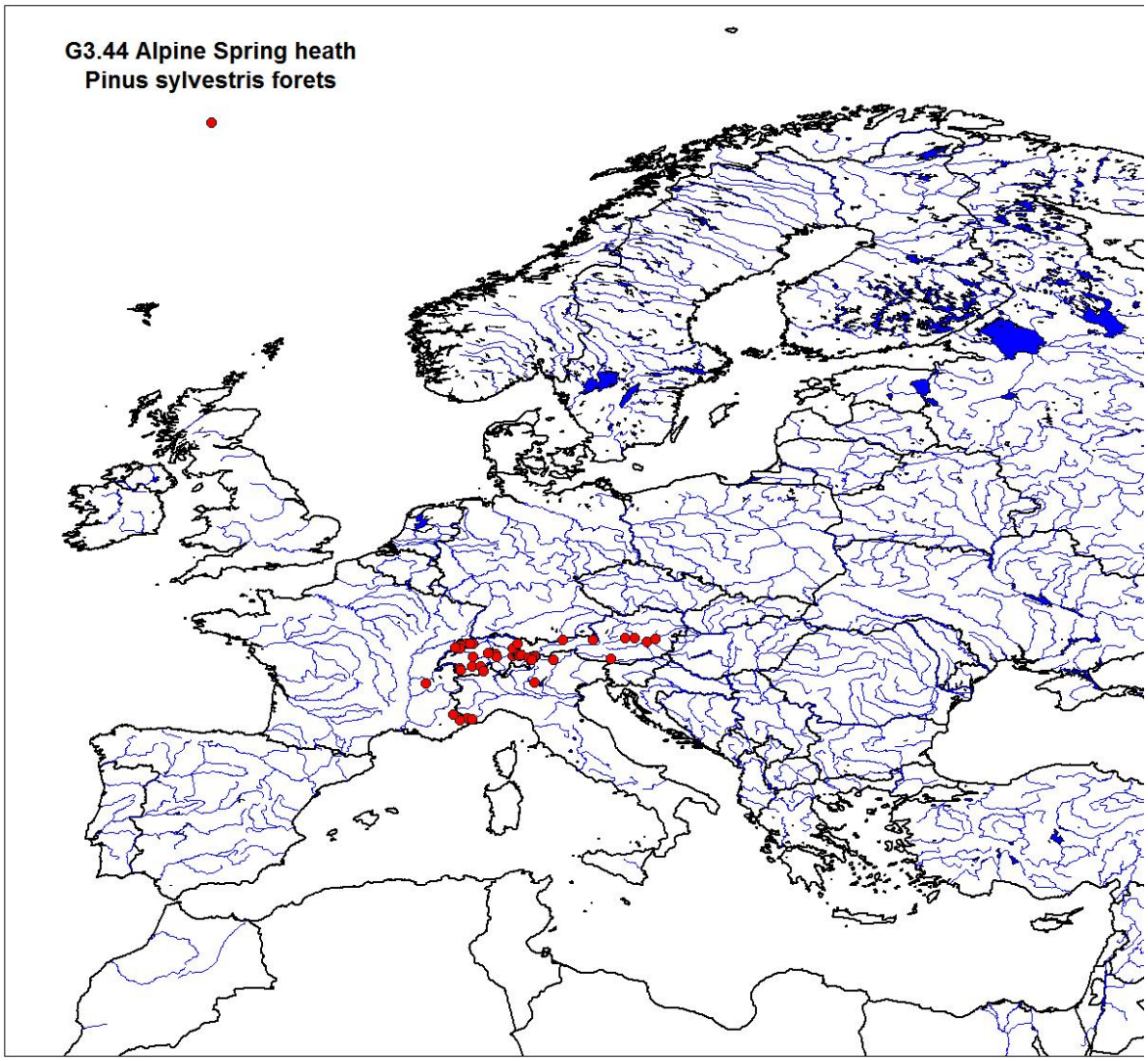
**Geographical distribution**

**In addition, include maps with the distribution of the species or habitat (GIS format preferred), with reference to scale and projection.**

- in the country: Projection: National co-ordinate system; scale: 1:2 500 000




- in the Pan-European region: projection WGS84 ; scale: 1:25 000 000




- in other parts of the world: **found only in Europe**

**Further comments concerning the geographical distribution :**(e.g. known subtypes, regional varieties, loci typici)

Apart from the relatively widespread Erico-pinetum association, the habit comprises numerous specialised vegetation associations with a small distribution range. Examples in Switzerland include Cephalanthero-Pinetum, Cirsio tuberosi-Pinetum, Cytiso-Pinetum, Coronillo-Pinetum and Pyrolo-Pinetum. The effective surface area covered by these associations varies between 1 and 6 $km^2$

**Estimated population size and trends (guideline 1 from Rec. 56 (1997):**
(Indicate the situation in the country(ies) and, as far as possible, European wide and world wide)
(according to EEA guidelines for indicating population data)

Switzerland: 70 $km^2$ (Steiger 2013)

Europe: 570 $km^2$ (general area according to the Map of natural vegetation of Europe, Bundesamt für Naturschutz. http://www.floraweb.de/vegetation/dnld_eurovegmap.html ), effective surface area estimated at 380 $km^2$ (Steiger 2013)

**Reasons for decline or threats:**

An environment exposed to the effects of global warning and sensitive to air pollution. Most associations have a small distribution range and are to be found in small scattered surface areas covering in total less than 10 $km^2$. Because of this, they are very vulnerable.

**Conservation status: (within country, region, pan-European level, etc …)**

Switzerland: of the 9 vegetation associations listed in Switzerland, only Erico-Pinetum is not threatened (LC). The other associations are endangered (EN) or critically endangered (CR), according to the red list of Swiss habitats, drawn up in line with the IUCN criteria (Keith & al. 2013)

**Important references / literature / publications:**
(especially those relevant for the taxonomy, conservation status and geographical distribution)

Delarze R. & Gonseth Y. (2008) Guide des milieux naturels de Suisse. 2e éd. Rossolis. Bussigny. 424 p.

Ellenberg, H. & Klötzli, F. (1972**)**. Waldgesellschaften und Waldstandorte der Schweiz. – Schweiz. Anst. Forstl. Versuchswesen Mitt. 48(4): 589–930.

Hölzel, N. (1996a)**.** Schneeheide-Kiefernwälder in den mittleren Nördlichen Kalkalpen. – Laufener Forschungsberichte 3: 192

Hölzel, N. (1996b). Erico-Pinetea (H6), Alpisch-Dinarische Karbonat-Kiefernwälder [= Synopsis der Pflanzengesellschaften Deutschlands 1]. – Göttingen (Floristisch-soziologische Arbeitsgemein-schaft und Reinhold-Tüxen-Gesellschaft) 49 p.

Keith DA, Rodriguez JP, Rodriguez-Clark KM, Nicholson E, Aapala K, et al. (2013) Scientific Foundations for an IUCN Red List of Ecosystems. PLoS ONE 8(5): e62111. doi: 10.1371 / journal. pone.0062111.

Plumettaz Clot, A.-C. (1988). Phyto-écologie des pinèdes valaisannes et contribution le taxonomie du genre Pinus. – Lausanne (Thèse, Lausanne) 369 p.

Schmid, E. (1936). Die Reliktföhrenwälder der Alpen. – Beitr. Geobot. Landesaufn. Schweiz 21: 1–190.

Steiger P. (2010) Wälder der Schweiz. Von Lindengrün zu Lärchengold. Vielfalt der Waldbilder und Waldgesellschaften in der Schweiz. Ott Verlag, Thun, 464 p.

Steiger P. (2013) Forêts. In : Delarze R., Bergamini A., Eggenberg S., Guntern J., Hofer G., Sager L., Steiger P., Stucki P. 2013: Liste des habitats prioritaires au niveau national et Liste rouge des habitats de Suisse. Rapport expertise sur mandat de l'Office fédéral de l'environnement (OFEV), Berne: 101 p. plus annexes (p. 102–340).

**Further remarks: (any additional important information not given above, relevant for evaluating the proposal)**

This habitat corresponds to the Erico-pinetum sylvestris phytosociological alliance, to which may be attached the peri-Alpine associations of Molinio-Pinetum and Cytiso-Pinetum. It has immature soil typical of the landscape of the Alps and the Jura (alluvial fans, unstable marl slopes, gypsum, moraine, etc.), and generally covers only small areas.

These woodlands constitute skylights in the forest fabric, where various uncommon heliophilous plants find refuge (orchids, post-glacial relicts). Despite its small surface area, this habitat is one of outstanding diversity, with no fewer than nine distinct vegetation associations in Switzerland.

**Picture of species or habitat:**

**Contact Person(s) for additional questions concerning this species or habitat:**
**(if multi-country proposal, please add relevant persons for each country)**

Name: Pearson Sarah ……..
Institution: Federal Office for the Environment (FOEN)……
Postal Address: 3003 Bern……...

Country: Switzerland…….. Phone No: …….
Fax No: …… E-mail: ……..

**If not identical with Contact Person, author of this data form:**

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Institution: BEB sa Bureau d'études biologiques

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Country: Switzerland
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E-mail: delarze.raymond@bluewin.ch