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**T-PVS/PA (2019) 7**

CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE  
AND NATURAL HABITATS

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**Group of Experts on Protected Areas and Ecological  
Networks**  
10<sup>th</sup> meeting  
2<sup>nd</sup> October 2019

**ADDITION OF ALPINE AND SUBALPINE HEATHS TO  
RESOLUTION NO. 4 (1996)**

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European Topic Center on Biological Diversity*

## BACKGROUND

Alpine and subalpine heaths are typical of the alpine and subalpine zones across Europe and occur in all the major mountain ranges, both in the Alpine biogeographical region and the smaller ranges in other regions such as in the Scottish Highlands and the Massif Central in France.

The original Annex I to Resolution No. 4 published in 1996 included three alpine and subalpine heaths taken from the Palaeartic classification:

- 31.424 Carpathian Kotschy's alpenrose heaths
- 31.425 Balkan Kotschy's alpenrose heaths
- 31.46 *Bruckenthalia* heaths

When the annex was transferred to the EUNIS habitats classification in 2010 the three Palaeartic habitats were replaced by their EUNIS equivalents (T-PVS/PA (2010) 10 rev)

<b>Palaeartic (1996)</b>		<b>EUNIS (2010)</b>	
31.424	Carpathian Kotschy's alpenrose heaths	F2.224	Carpathian <i>Rhododendron kotschyi</i> heaths
31.425	Balkan Kotschy's alpenrose heaths	F2.225	Balkan <i>Rhododendron kotschyi</i> heaths
31.46	<i>Bruckenthalia</i> heaths	F2.26	<i>Bruckenthalia</i> heaths

The European Topic Centre on Biological Diversity (ETC/BD) was asked to make proposals to harmonise as far as possible the annexes of Resolutions No. 4 (1996) and No. 6 (1998) and annexes I and II of the EU's Habitats Directive. This was to help countries who later joined the EU transfer information from the Emerald Network to the Natura 2000 database as easily as possible and to ensure that the Emerald Network sites could be easily transferred under Natura 2000 for countries on accession to the EU. This involved the addition of many habitats to Annex I of Resolution No. 4 (1996) together with some reorganisation by merging some habitats and listing their "parent" habitat.

In the case of alpine and subalpine heaths, F2.224 and F2.225 were replaced by F2.22 to give (T-PVS/PA (2014) 12):

- F2.22 Alpine acidocline *Rhododendron* heaths
- F2.26 *Bruckenthalia* heaths

However, these two habitats together only cover part of the variation of the Habitats Directive Annex I "4060 Alpine and Boreal heaths" which is equivalent to the EUNIS level 3 unit F2.2 Evergreen alpine and subalpine heath and scrub. It is not clear why this level 3 unit was not proposed in 2014 as it was included in earlier drafts.

## **PROPOSED AMENDMENT**

It is proposed that:

F2.22 Alpine acidocline *Rhododendron* heaths  
F2.26 *Bruckenthalia* heaths

are replaced by:

F2.2 Evergreen alpine and subalpine heath and scrub

This change would allow an easier transfer of information between the Natura 2000 Standard Data Form and the Emerald Network Standard Data Forms. It would increase the scope and geographical range of the habitat by clearly including alpine and subalpine heaths in the Caucasus, Scandinavia and the British Isles.

A proposed description for the Interpretation Manual is given in appendix 1.

**Appendix 1:** proposed description for the Interpretation Manual**F2.2 Evergreen alpine and subalpine heath and scrub**

Includes the following subtypes listed separately in the 2015 version:

F2.22 Alpine acidocline *Rhododendron* heaths

F2.26 *Bruckenthalia* heaths

**Description**

Small, dwarf or prostrate shrub formations of the alpine and subalpine zones of mountains, dominated by ericaceous species, *Dryas octopetala*, dwarf junipers, brooms or greenweeds; *Dryas* heaths of the British Isles.

**Plant communities**

*Kobresio-Dryadion*

*Dryadion integrifoliae*

*Loiseleurio-Arctostaphylion*

*Phyllodoco-Vaccinion myrtilli*

*Loiseleurio-Vaccinion*

*Rhododendro ferruginei-Vaccinion*

*Juniperion nanae*

*Bruckenthalion spiculifoliae*

*Rhododendron caucasicum*

*Salici kazbekensis-Empetrium nigrae*

*Aconito nasuti-Juniperion*

*Ericion carneae*

*Daphno oleoidis-Juniperion alpinae*

*Daphno-Genistion radiatae*

*Cytision oromediterranei*

*Genisto versicoloris-Juniperion hemisphaericae*

*Pruno prostratae-Juniperion sabiniae*

*Genisto-Vaccinion*

**Species**

*Rhododendron myrtifolium* (*R. kotschyi*), *Rhododendron ferrugineum*, *Rhododendron caucasicum*, *Rhododendron hirsutum*, *Rhododendron intermedium*, *Rhodothamnus chamaecistus*, *Bruckenthalia spiculifolia*, *Juniperus nana*, *Empetrum hermaphroditum*, *Vaccinium uliginosum*, *Vaccinium myrtillus*, *Vaccinium vitis-idaea*, *Arctostaphylos alpine*, *Arctostaphylos uva-ursi*, *Loiseleuria procumbens*, *Cassiope tetragona*, *Genista radiata*, *G. holopetala*, *G. hassertiana*, *Chamaecytisus eriocarpus*, *C. absinthioides*.

**Corresponding class in other classifications**

Milieux naturels de Suisse 2008:

5.4.3 Lande subalpine calcicole

5.4.4 Lande subalpine xérophile

5.4.5 Lande subalpine méso-hygrophile sur sol acide, 5.4.6 Lande alpine ventée

United Kingdom classification:

"H13 *Calluna vulgaris-Cladonia arbuscula* heath"

"H14 *Calluna vulgaris-Racomitrium lanuginosum* heath"

"H15 *Calluna vulgaris-Juniperus communis* ssp. *nana* heath"

"H17 *Calluna vulgaris-Arctostaphylos alpinus* heath"

"H19 *Vaccinium myrtillus-Cladonia arbuscula* heath"

"H20 *Vaccinium myrtillus-Racomitrium lanuginosum* heath"

"H22 *Vaccinium myrtillus-Rubus chamaemorus* heath"

Nordic classification:

"11 Snöfria vindhedar"

"121 Hedvegetation på fattigt underlag"

"122 Hedvegetation på rikt/kalkrikt underlag"

"1311 *Cassiope hypnoides*-*Salix herbacea* typ"

"1321 *Salix polaris* typ".

European Red List of Habitats:

F2.2a Alpine and subalpine ericoid heath

F2.2b Alpine and subalpine *Juniperus* scrub

F2.2c Balkan subalpine genistoid scrub

### **EU Habitats Directive Annex I**

4060 Alpine and Boreal heaths

Haapasaari, M. (1988). The oligotrophic heath vegetation of northern Fennoscandia and its zonation. *Acta Bot. Fennica* 135:1-219.

Oksanen, L. & Virtanen, R. (1995). Topographic, altitudinal and regional patterns in continental and suboceanic heath vegetation of northern Fennoscandia. *Acta Bot. Fennica* 153:1-80.

Zaghi, D. (2008). Management of Natura 2000 habitats. 4060 Alpine and Boreal heaths. *European Commission*.

Alternative species list (based on EUNIS website)

F2.21 *Loiseleuria procumbens*, *Vaccinium* spp, *Cetraria islandica*, *Cladonia* spp F2.22 *Rhododendron* spp  
*Vaccinium* spp F2.23 *Juniperus*, F2.25 *Juniperus nana*, *Loiseleuria procumbens*, *Empetrum hermaphroditum*, *Arctostaphylos alpinus*, *Phyllodoce caerulea*, *Betula nana*, F2.26 *Bruckenthalia spiculifolia*, *Juniperus nana*, *Vaccinium myrtillus* F2.27 *Arctostaphylos uva-ursi*, *Arctostaphylos alpinus*  
F2.28 *Rhododendron hirsutum*, *Rhododendron intermedium*, *Rhodothamnus chamaecistus*, *Erica herbacea*, *Clematis alpina*, *Daphne striata*, *Daphne mezereum*, *Globularia cordifolia*, *Arctostaphylos uva-ursi*. F2.29 *Dryas octopetala* F2.2A *Vaccinium myrtillus*, *Vaccinium uliginosum* s.l., *Vaccinium vitis-idaea*, *Empetrum nigrum* F2.2B *Genista* spp. *Chamaecytisus* spp.

From Red List:

### **F2.2a Alpine and subalpine ericoid heath (LC)**

*Caricion nardinae* Nordhagen 1936

*Dryadion integrifoliae* Ohba ex Daniëls 1982

*Loiseleurio-Arctostaphylon* Kalliola 1939

*Phyllodoco-Vaccinion myrtilli* Nordhagen 1943

*Loiseleurio-Vaccinion* Br.-Bl. in Br.-Bl. et Jenny 1926

*Rhododendro ferrugineae-Vaccinion* Schnyder 1930

*Bruckenthalion spiculifoliae* Horvat 1949

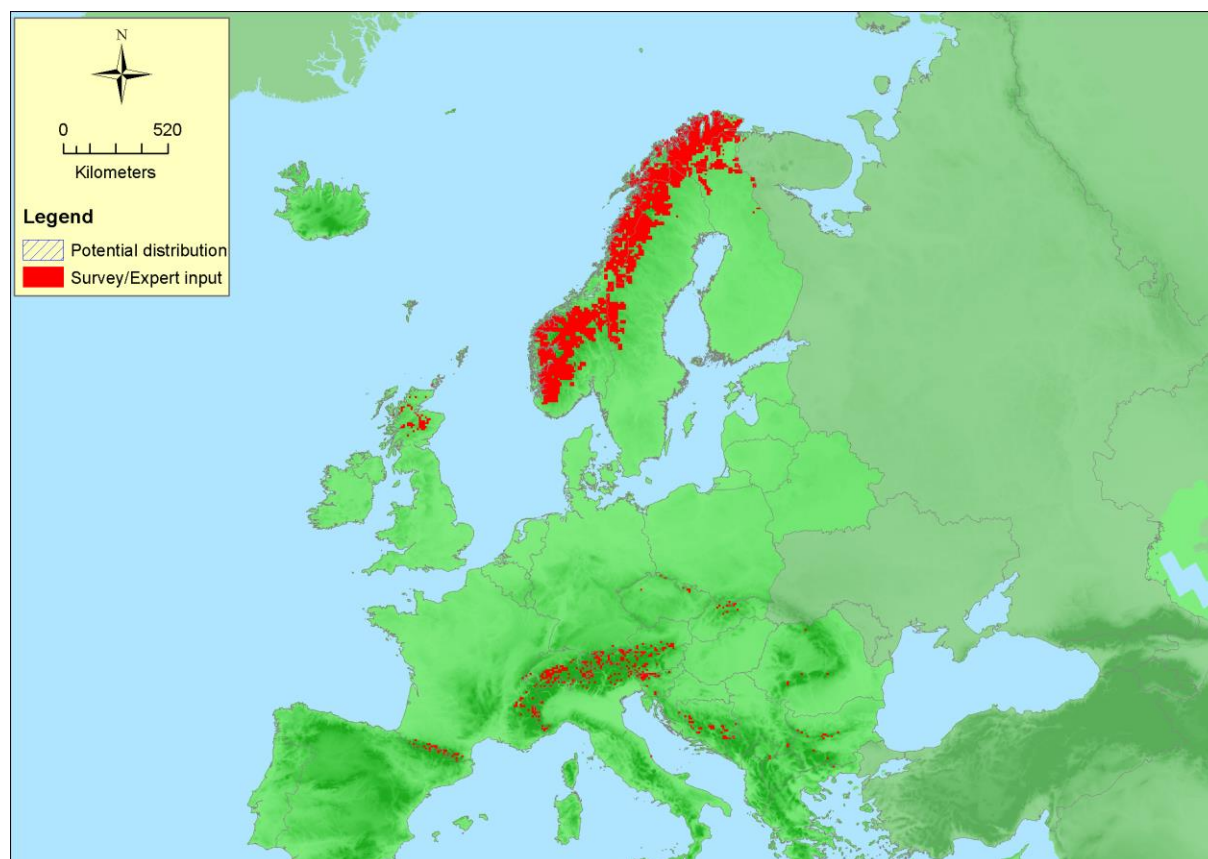
*Rhododendron caucasicum* Onipchenko 2002

*Salici kazbekensis-Empetrion nigrae* Onipchenko 2002

*Ericion carneae* Rübel ex Grabherr et al. 1993

*Genisto pilosae-Vaccinion* Br.-Bl. 1926

*Vaccinion myrtilli* Krajina 1933 (sensu Kliment et al. 2010)



The map is rather complete, but has data gaps in the Carpathians and the Balkan mountains

C. Bită-Nicolae, M. Aronsson, F. Bioret, J. Capelo, A. Čarni, P. Dimopoulos, J. Janssen, J. Loidi.(2016)  
 European Red List of Habitats – Factsheet for F2.2a Alpine and subalpine ericoid heath  
<https://forum.eionet.europa.eu/european-red-list-habitats/library/terrestrial-habitats/f.-heathland-and-scrub/f2.2a-alpine-and-subalpine-ericoid-heath>

## F2.2b Alpine and subalpine *Juniperus* scrub (LC)

EuroVegChecklist:

*Juniperion nanae* Br.-Bl. in Br.-Bl. et al. 1939

*Aconito nasuti-Juniperion nanae* Onipchenko 2002

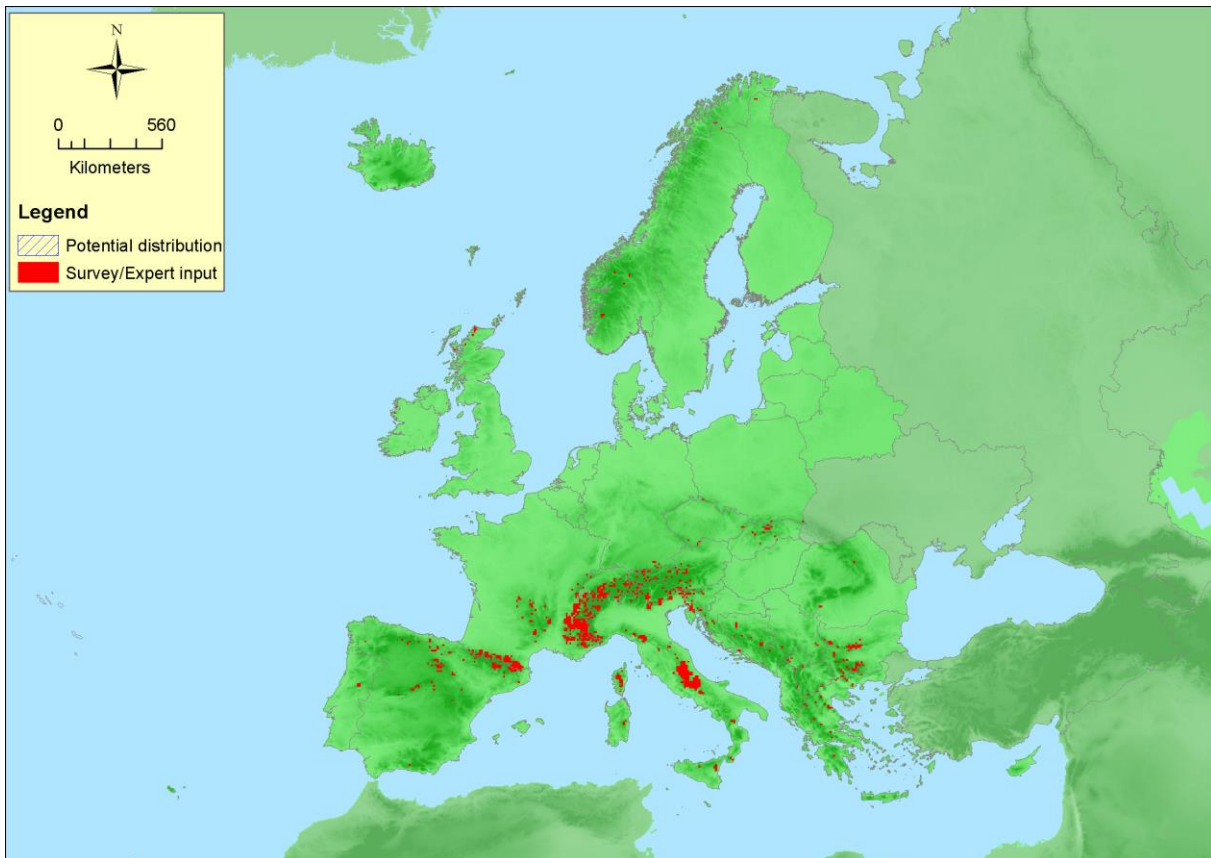
*Pino sylvestris-Juniperion sabiniae* Rivas Goday in Rivas Goday et Borja 1961

*Genisto versicoloris-Juniperion hemisphaericae* Rivas-Mart. et J.A. Molina in Rivas-Mart., Fernández-González et Loidi 1999

*Pruno prostratae-Juniperion sabiniae* Rivas-Mart. et J.A. Molina in Rivas-Mart., Fernández-González et Loidi 1999

*Daphno oleoidis-Juniperion alpinae* Stanisci 1997

*Junipero-Bruckenthalion* (Horvat 1949) Boşcaiu 1971



Map is rather complete, with some possible gaps in the Balkan and unclear boundaries to F3.1a

A. Čarni.

## F2.2c Balkan subalpine genistoid scrub (LC)

EuroVegChecklist (alliance):

*Daphno-Genistion radiatae* N. Randelovic et Rexhepi 1980



The map is rather incomplete but data availability is scarce. AOO and EOO are likely to be larger.

A. Čarni



GBIF

*Rhododendron ferrugineum*



*Rhododendron caucasicum*

