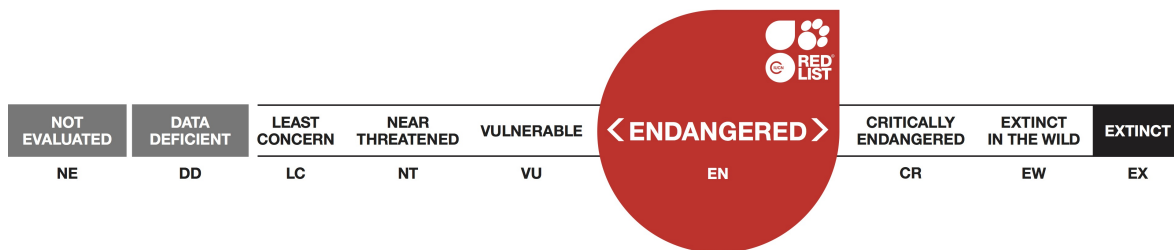


Pseudotracheloma metapodium, Mealy Meadowcap

Assessment by: Jordal, J. & Olariaga Ibarguren, I.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Fungi	Basidiomycota	Agaricomycetes	Agaricales	Tricholomataceae

Taxon Name: *Pseudotricholoma metapodium* (Fr.) Sánchez-García & Matheny

Synonym(s):

- *Agaricus metapodius* Fr.
- *Porpoloma metapodium* (Fr.) Singer

Common Name(s):

- English: Mealy Meadowcap

Taxonomic Notes:

This species has long been placed in the genus *Porpoloma* Singer. Recent molecular studies suggest a placement in the genus *Pseudotricholoma* (Singer) Sánchez-García & Matheny, as it is not closely related to the type species of *Porpoloma*, *P. sejunctum* Singer. *Pseudotricholoma metapodium* is normally easily recognized but be aware of *Lepista luscina*. It has also been confused with *Hygrocybe ovina*.

Assessment Information

Red List Category & Criteria: Endangered A2c+3c+4c [ver 3.1](#)

Year Published: 2019

Date Assessed: March 26, 2019

Justification:

Pseudotricholoma metapodium is rare and strongly confined to semi-natural grasslands in Europe, especially in lowland/coastal areas. Griffith *et al.* (2013) estimated a habitat loss of 90% over the last 75 years for the CHEG-fungi (grassland fungi of the groups Clavariaceae, *Hygrocybe* s.l., *Entoloma* and Geoglossaceae; where also *Pseudotricholoma metapodium* belongs) as a whole in Western Europe. These habitats are declining and getting bad quality due to changing agricultural practices, development projects and pollution (nitrogen deposition). A total of ca. 400-450 localities (>800 occurrences in GBIF) is known in Europe, of which ca. 90% (350-400) are in Sweden, Norway and Great Britain. Switzerland has 19 loc. after 1990, Denmark 12, and there is further information on 1-10 in each of Austria, Slovakia, Germany, Czechia, Finland, France, Croatia, Italy and Spain. The species is nationally assessed as EN in three countries, CR in two and VU in one. The largest populations (Norway + Sweden) are assumed to have experienced a decline of 50-80% in the past and present - and also possibly future - three generations. The species is in many countries known to occur mainly in the most species rich/high quality "waxcap grasslands". Many of its localities seem to have very few mycelia/individuals. There is information of a combined habitat loss and decreased habitat quality of >50% in West European lowlands the past 50 years. As this species is probably restricted to the oldest and highest quality seminatural grasslands, probably responding to some ecological features of these, its population decrease is probably well over 50% in the past 50 years. The species meets the threshold for EN (A2c+3c+4c) in Europe (population decline >50% in three generations), which is also assumed to be the

total area of the species, thus the global status is the same.

Geographic Range

Range Description:

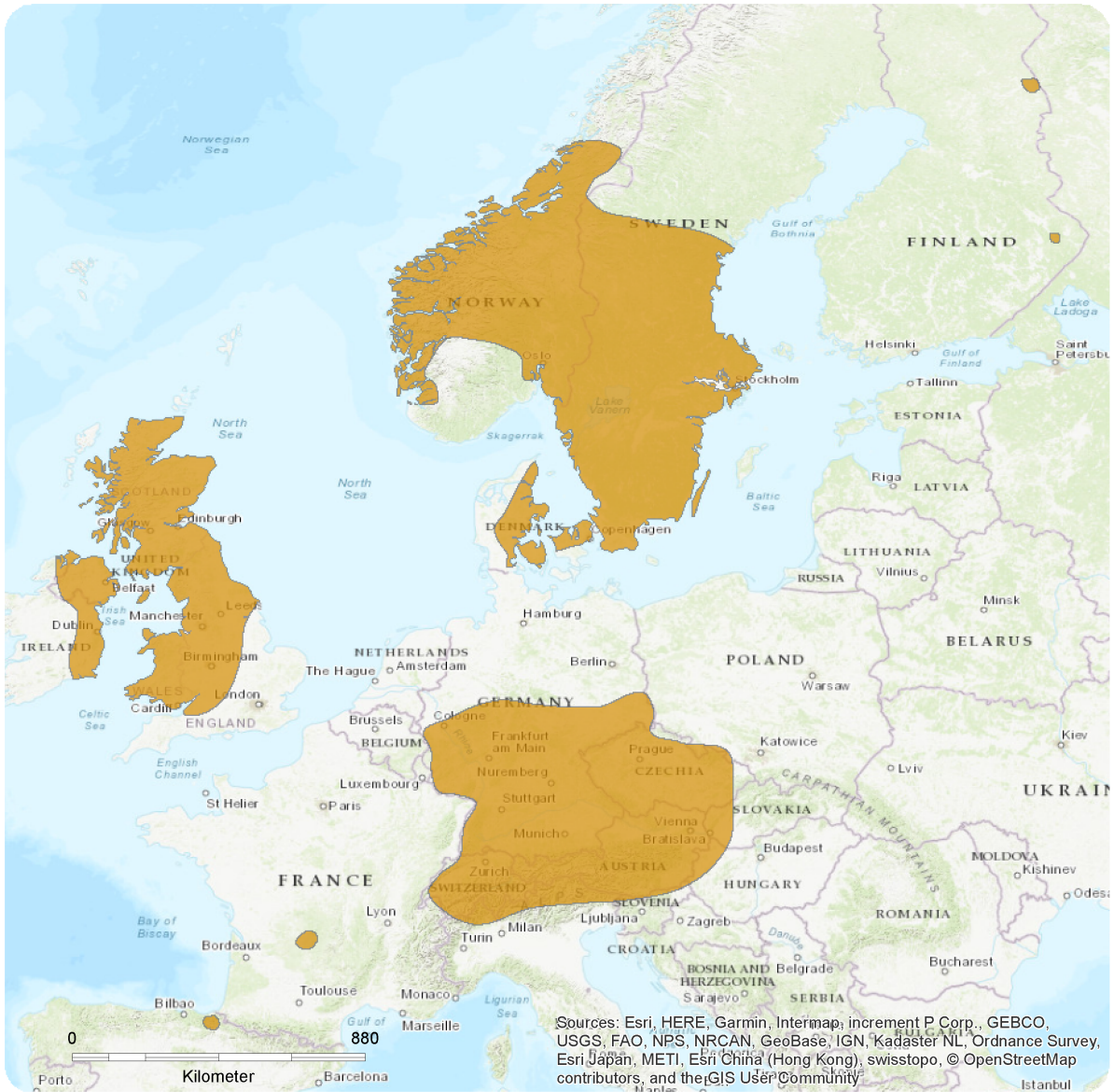
This species is endemic to Europe. It is broadly distributed in temperate areas, but the main population is around the North Sea (Norway, Sweden, UK), probably with oceanic tendency. It is scattered and rare in all of its distribution range, but less rare in Norway, Sweden and the UK. Mainly found in the lowlands, but in Scandinavia rarely in middle boreal vegetation zone and in the Swiss Alps up to 2020 m asl.

Country Occurrence:

Native: Austria; Croatia; Czechia; Denmark; Finland; France; Germany; Hungary; Ireland; Italy; Norway; Slovakia; Spain; Sweden; Switzerland; United Kingdom

Distribution Map

Pseudotricholoma metapodium



Range

Extant (resident)

Compiled by:

IUCN



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



Population

A total of ca. 400-450 known localities is estimated in Europe, of which ca. 90% are in Sweden, Norway and Great Britain. Switzerland has ca. 19 localities after 1990, Denmark has 12 localities, and there is further information on 1-10 in each of Austria, Slovakia, Germany, Czechia, Finland, France, Italy, Croatia and Spain. The species is nationally assessed EN in three countries, CR in two and VU in one. The largest populations (Norway and Sweden) are assumed to have declined 50-80% in the past and present - and also possibly future - three generations. The species is in many countries known to occur mainly in the most species rich/high quality "waxcap grasslands". Its populations are decreasing due to loss of habitat, and many of them have very few mycelia/individuals. Semi-natural grasslands are known to have strongly decreased in Europe. There is information of a combined habitat loss and decreased habitat quality of >50% in West European lowlands in the past 50 years. As this species is probably restricted to the oldest highest quality seminatural grasslands, probably responding to some ecological features of these, its population decrease is probably well over 50% in the past 50 years.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

The species is primarily found in non-fertilized dry grasslands and natural pastures. In Spain, it also occurs in periodically cut *Pteridium* stands and grassy forest clearings, on acid soil. In Norway it is strongly confined to old seminatural grasslands; of 189 observations, 94.2% were in seminatural grasslands, only 1.6% in forest-like habitats, and the rest in grassy habitats resembling seminatural grasslands (Jordal *et al.* 2016). It has similar habitat requirements in other countries. Its main distribution is in the lowlands, but it is found up into the middle boreal vegetation zone in Norway (ca. 770 m) and 2020 m in the Swiss Alps.

Systems: Terrestrial

Use and Trade

The species is not known to be used.

Threats (see Appendix for additional information)

This species has undergone a strong regression due to loss of habitat. Natural pastures and nutrient poor grasslands have disappeared to a large extent in Europe. Thus, *P. metapodium* is sensitive to changes in traditional use of seminatural grasslands, e.g. fertilization. On a smaller scale, cessation of traditional cutting *Pteridium* fields is a secondary threat in northern Spain. Development projects and airborne nitrogen deposition can also be threats.

Conservation Actions (see Appendix for additional information)

The key conservation actions for this species are maintenance of traditional use of semi-natural grasslands and protection of sites where it occurs against change of use (e.g. development projects). The maintaining of seminatural grasslands demands yearly grazing or mowing. If grazing by heavy animals destroys part of the soil, light animals like sheep should be recommended. Habitat conservation by governmental support to traditional agricultural practices is most important, this exists in many countries to maintain extensive areas of agricultural areas, and should be extended to larger areas than

today. Management plans are needed. It is proposed as a national priority species in Norway (Jordal 2013).

Research is needed into ecological requirements and trophic form. Management plans are needed. Habitat trends should be monitored.

Credits

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External Resources

For [Images and External Links to Additional Information, please see the Red List website](#).

Appendix

Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
4. Grassland -> 4.4. Grassland - Temperate	-	Suitable	-

Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.1. Housing & urban areas	Ongoing	-	-	-
1. Residential & commercial development -> 1.2. Commercial & industrial areas	Ongoing	-	-	-
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.3. Agro-industry grazing, ranching or farming	Ongoing	-	-	-
4. Transportation & service corridors -> 4.1. Roads & railroads	Ongoing	-	-	-
9. Pollution -> 9.5. Air-borne pollutants -> 9.5.1. Acid rain	Ongoing	-	-	-

Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions Needed
1. Land/water protection -> 1.1. Site/area protection
1. Land/water protection -> 1.2. Resource & habitat protection
2. Land/water management -> 2.3. Habitat & natural process restoration
4. Education & awareness -> 4.3. Awareness & communications
5. Law & policy -> 5.1. Legislation -> 5.1.2. National level
6. Livelihood, economic & other incentives -> 6.4. Conservation payments

Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Research Needed
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
2. Conservation Planning -> 2.2. Area-based Management Plan
3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution
Lower elevation limit (m): 0
Upper elevation limit (m): 2020
Habitats and Ecology
Generation Length (years): 17

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