Plants threatened by increasingly efficient land use in the south and climate change in the north

The most significant cause of vascular plants becoming threatened is the overgrowth of open areas. Additionally, forestry and drainage of mires have caused many plants to become threatened. Threatened and near threatened plants are most commonly found on treeless fells that are gradually reverting to forest as the climate warms. The management of traditional biotopes, such as meadows, and conservation of forests and mires in their natural state are efficient methods of retaining the rich diversity of flora in Finland.

The new assessment of threatened species included 1,176 vascular plant species that are habitually found in Finland. Of these, 212 (18%) are threatened and 145 are near threatened. The Red List now includes 31.9% of all the species assessed. Of the species assessed to be least concern in 2010, 36 were now reclassified as threatened or near threatened for the first time. A significant proportion of these are plants growing in fell habitats that are threatened by climate change.

The bristly bellflower is a plant found in pastures. Like many other meadow plants, it has found a safe haven in roadside verges. However, there its habitats are threatened by the large-leaved lupine, a strongly growing invasive alien species that spreads efficiently. Photo by Johanna Hallman.

The main threat to vascular plants is the overgrowth of open areas. Other major threats include forest management practices, drainage of mires and peat extraction. In addition, construction destroys and whittles away at habitats.

Meadows are disappearing, the species inhabiting them can still be saved

Open habitats related to traditional agriculture, such as meadows and pastures, are continuously decreasing in number and size, driving the species inhabiting them into an increasingly bad situation. The most important cause of the decline of flora is the overgrowth of

their habitats after the discontinuation of grazing and mowing. Traditional biotopes and other habitats changed by humans have the most diverse flora. Almost one third of the plant species found in them (106 species) are on the Red List.

The trend of species becoming threatened can be slowed down by ensuring the management of valuable habitats of meadow species and its continuity. This requires adequate funding for management measures in both private lands and nature reserves. Due to great changes in agriculture, it is increasingly important that the species inhabiting meadows are also taken into consideration in other land use, such as road maintenance. Taking threatened species into consideration in the management of roadside verges and other built environment makes it possible to secure the future of many declining meadow species. The management of roadside verges is made challenging by the spread of the large-leaved lupine, an invasive alien species, and more attention must be paid to controlling it.

Mire habitats require conservation and restoration

Old forest drainage ditches and the restoration of existing drainage ditches continue to dry mires, particularly in Southern Finland. Many of the long-lived plant species struggling to survive in these areas are declining or even disappearing. There is pressure to utilise mires further. Peat production is destroying wide mire areas, and the felling of forests threatens the sensitive flora of spruce mires.

Roadside meadow vegetation at its finest. The roadside verges with the most valuable vegetation must be identified, and timely ditch cleaning must be arranged for them. Fields that are naturally low-growing do not necessarily have to be mowed every year, which may also achieve cost savings. Photo by Terhi Ryttäri.

Mining activities threaten important mire areas in Central Lapland. The diverse flora of fen-like mires in the Åland Islands is decreasing due to overgrowth. The Red List includes 33 (27%) of the 121 plant species that primarily inhabit mires. Preservation of mire flora requires conservation of undrained mire habitats or mire habitats that are close to their natural state as well as recovery of the natural water cycle of mires with restoration efforts.

Global warming threatens fell flora

Compared to the south, the climate is warming up twice as fast in the north. This particularly threatens species that inhabit the treeless peaks of fells and that have adapted to arctic conditions. They are unable to move higher up the fells or further up north because this spread is stopped by the Arctic Ocean. The rise of the tree line as a result of global warming will reduce the size of these treeless areas.

Snow pockets are places in which the layer of snow melts slowly. The flora living in them has adapted to a short growing season as well as a cool and wet microclimate. The shortening of the snow cover period and rising of temperatures dry up snow pockets and increase their overgrowth, impairing the living conditions of species typically found in snow pockets.

The glacier buttercup is a distinctly arctic species. In Finland, it is only found in snow pockets in the middle and upper treeless zones of the great fells of Enontekiö, lands wetted by meltwater and fields of jagged rocks. The shrinking of treeless areas on fells threatens the Finnish populations of the glacier buttercup, which have no alternative places to grow. Photo by Saara Tynys.

In proportion to the total number of species in the habitat, the highest number of Red List plant species is found on fells. As many as 72 species, i.e. 62% of all species found above the tree line on fells, are on the list. Of these, roughly half are assessed to be near threatened species that are threatened by climate change.

More information

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Links

- The 2019 Red List of Finnish Species
- Web service of the Finnish Red List