Linum dolomiticum Borbás
a strictly protected wild relative of cultivated flax in Hungary

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Linum dolomiticum: a wild relative of cultivated flax

The dolomite flax (*Linum dolomiticum* Borbás) is a very rare, endemic, perennial flax species restricted to some habitats on dolomite rocks in Hungary. It is a relic species, the entire world population of approximately 1000 plants is living on a 10 ha area () about 32 km north-west of Budapest, near Pilisszentiván, a strictly protected area. It was declared a protected species in 1951.

Biology

It is a dwarf shrub (chamaephyton) with woody, branching stem ending in leaf rosettes. The flowering stems are usually 10–15 cm. The inflorescence has 2–6 yellow flowers. Sepals are 6–7 cm, narrowly lanceolate acuminate. Petals are 10–16 mm obovate or lanceolate. Capsules are globose with 10 seeds. It is closely related to *Linum elegans* Spruner ex Boiss. in the Balkan Peninsula. It has a chromosome number of 2n=28. It is pollinated by insects (entomogamy), but sometimes it is auto-gamous. Seeds are dispersed by animals (epizoochory).

Natural habitat of *Linum dolomiticum* in the Buda Hills

Taxonomy

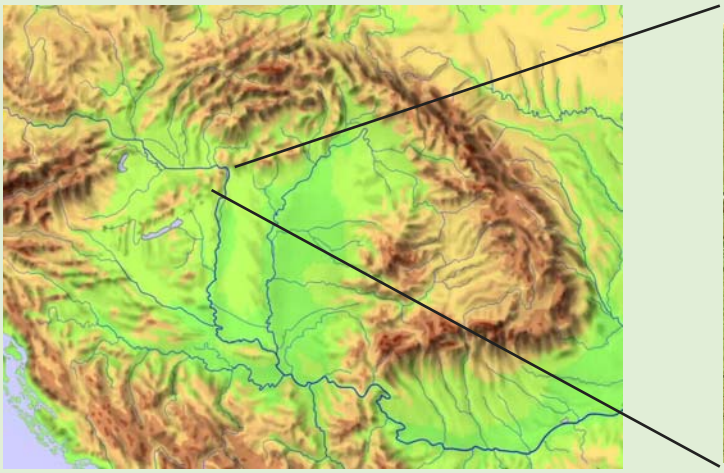
Sect. Syllinum Griseb. *Linum flavum* group

Taxon: *Linum dolomiticum* Borbás (1897)

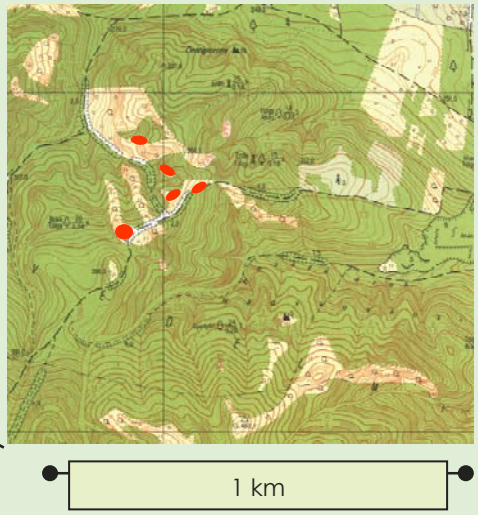
Forms: forma *dolomiticum* with petals 15-16 mm long and ovate and forma *parviflorum* Wagner with petals 10-12 mm long and lanceolate

Vernacular name: Dolomite flax (English), Pilisi len (Hungarian)

PGR Forum
European Crop Wild Relative Diversity Assessment and Conservation Forum



Distribution of *Linum dolomiticum* in the Carpathian Basin



Locations of the existing populations *of L. dolomiticum* in the Buda Hills

Distribution

An endemic and relic plant species of the Hungarian flora, it can be found only on one location (Kisszénás) in the entire world, in close proximity to the Buda Landscape Protection Area. The world population is living on a 10 hectare size habitat which is strictly protected.

Ecology

The Budapest part of the Buda Landscape Protection Area managed by Directorate of the Danube–Ipoly National Park is characterized by the richness of plant communities. The limestone and dolomite rock grasslands, covered only with a thin layer of ground, have the highest diversity, and are home to the most rare species. Endemic to the Carpathian basin are *Draba lasiocarpa* Rochel var. *demissorum* Borbás, *Phyteuma orbiculare* L., *Seseli leucospermum* Waldst. et Kit., *Dianthus plumarius* L. ssp. *regis-stephani* (Rapcs.) Baksay, *Centaurea sadleriana* Janka, or *Vincetoxicum pannonicum* (Borhidi) Holub. The latter can be found only in the Villányi Mountains and here. Facing north, on the cooler slopes grows *Sesleria sadleriana* Janka.

Threats

The most important threats to *L. dolomiticum* are disturbances and its small population size. At present, its level of threat is assessed as low.

In situ conservation

First steps to protect this endemic flax species were taken in 1934. This species is protected by Law № LIII. of 1996 on Nature Conservation and Act № 13/2001 of the Ministry of Environmental Protection. In addition it is listed in the Bern Convention 1979, CORINE Biotopes and the Habitats Directive (92/43/EEC) Appendix I. and European Diploma 1995 (The Szénás Hills strictly protected area).

Ex situ conservation

Three seed samples from three populations are conserved in the genebank collection at the Institute for Agrobotany, Tápiószele (Hungary).

References

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