

Domestication and field management trials of *Cicerbita alpina* (L.) Wallr.

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Botanic features

Cicerbita alpina (L.) Wallr., usually known as Alpine blue-sow-thistle, is a perennial plant belonging to the *Asteraceae* family, commonly present in the sub-alpine and occasionally in the mountain plane of all the Alpine arc between 1,000 –2,000 m a.s.l.. As regards its ecology, it grows both in calcareous and in intermediate or siliceous soil, but prefers neutral pH conditions and wet and eutrophic environments (Fig. 1). These ecological conditions are typical of clearings, forest road edges and vallecucas. In Italy it is present but rare in the northern part of the Apennines too.



Fig. 1 Plants of *C. alpina* in their typical environment

Local usages and risks of over-exploitation

The Alpine blue-sow-thistle shoots (commonly known in Trentino as “redic de ors”), boiled and seasoned with olive oil or tomato sauce, are considered a delicacy in the mountain areas of the provinces of Trento and Brescia where they are usually collected at the beginning of the vegetative season (May) (Fig. 2).

As time goes by, eating Alpine blue-sow-thistle shoots has become more and more popular and its use has passed from domestic tables to restaurants. Furthermore it is possible to find it in various culinary preparations in shops specialised in local products (Fig. 3). As a consequence this plant is more and more at risk of over-exploitation.

Collecting regulations

To meet needs and traditional habits of mountain areas where *C. alpina* shoots have always been collected for domestic use and at the same time to limit serious damage to the natural populations, in some Regions legislative measures regulating its harvest have been issued. In particular, in the Autonomous Province of Trento (Decree n.19-140/Leg, 7th August 2003) they allow collecting 2 kg of fresh shoots per person daily, while in Friuli-Venezia Giulia Region the maximum quantity allowed is 1 kg. Both administrations provide also penalties for trespassers. Veneto Region has submitted a bill to allow harvesting 1 kg of fresh shoots daily.

Studies undertaken to change from wild collection to cultivation

In 1998 with the aim of exploiting the alimentary properties of *C. alpina* without negatively touching upon its natural diffusion and of reducing wild collection, within a leading project of rural development, one study finalised to its cultivation was financed by an association of local authorities operating in the Chiese valley, area located between the Trento and Brescia

Provinces (1). In this research, where, among other things, two reproduction systems were tested, the seed treated with hormones or not treated gave very poor germination (<3%), while adopting the root cutting technique > 50% of plants survived. Recently at the CRA-ISAFa satisfying germinating rates were obtained removing lighter seeds by means of an air-blower and treating them with 15 mg L⁻¹ of Gibberellic acid (2). Furthermore the micro-propagation technique of this species was made ready (3).



Fig. 2 *Cicerbita alpina* fresh shoots



Fig. 3 Shoots of *C. alpina* canned

Actions in progress

At present, within a project financed by the Autonomus Province of Trento, named PARMA (Piante Alimentari, aRomatiche e Medicinali Alpine: una risorsa da valorizzare) (4) seed samples have been collected in different areas of Trentino and with the numerous plantlets obtained three experimental trials have been laid out in three locations (Fig 4). In these field trials vigor and productivity of various accessions, different field managements and also the effect of different dates (years) of shoots collecting have been compared.

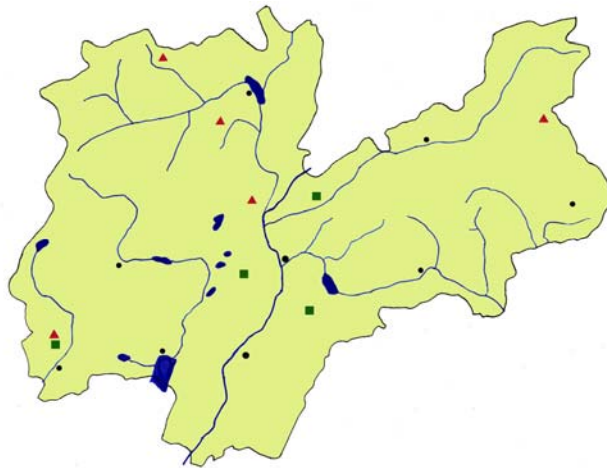


Fig. 4 Map of collection sites and field trials in Trentino Province

References

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