

VALVESTINO MEDICINAL PLANTS: PRESERVATION IN THE G. E. GHIRARDI BOTANICAL GARDEN

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In this work we present the results with regard to a project based on Valvestino (Brescia, Italia) autochthonous and endemic plants entitled “Valorizzazione della cultura locale: la flora” carried out in collaboration with Comunità Montana Parco Alto Garda Bresciano, Gal Garda Valsabbia, Consorzio Forestale della Valvestino and Regione Lombardia.

Valvestino is an area of Southern Alps, belonging to Parco Alto Garda Bresciano, characterized by an extraordinary plant biodiversity and located nearby Botanical Garden G. E. Ghirardi (Toscolano Maderno, Brescia).

For this project we have realised at first investigations on the popular uses of medicinal plants (40 interviews have been made) and then, on the basis of the obtained informations a list of 32 species (*Achillea millefolium* L., *Arnica montana* L., *Arum maculatum* L., *Asarum europaeum* L., *Chelidonium majus* L., *Convallaria majalis* L., *Digitalis lutea* L., *Fagus sylvatica* L., *Fritillaria tubaeformis* G. et G., *Gentiana lutea* L., *Gentiana utriculosa* L., *Helleborus niger* L., *Helleborus viridis* L., *Hypericum perforatum* L., *Malva neglecta* Wallr., *Parietaria officinalis* L., *Picea excelsa* Link, *Pinguicula alpina* L., *Pinus mugo* Turra, *Plantago major* L., *Primula auricula* L., *Primula spectabilis* Tratt., *Ranunculus thora* L., *Sambucus nigra* L., *Scabiosa vestina* Facchini, *Silene elisabethae* Jan, *Taraxacum officinale* Weber, *Thymus pulegioides* L., *Tussilago farfara* L., *Veratrum album* L., *Vinca minor* L., *Viola dubyana* Burnat) has been drawn up: on these plants we have focused our studies.

For each species, correctly identified and determined according to Flora d'Italia (Pignatti, 1982) we have harvested 3 entities for the ex situ conservation into the Botanical Garden and to realise exsiccata. Further plant material was used for subsequent phytochemical analysis.

In our opinion the plant preservation in the Botanical Garden must be based on the knowledge of several aspects: morphology, genetics and secondary metabolite composition. In fact, the morphologic parameters often are not sufficient to characterize the species under study. The phytochemical characterization is important, particularly, if the subjects of preservation are officinal plants.

For a correct preservation of specimens transplanted to the Garden, in order to recreate the natural habitat conditions, the morphological (texture class) and chemical (pH, total carbonate content) characteristics of original soil were studied.

The final purpose is to compare the secondary metabolite content of plants in situ with those of specimens preserved in the Garden.

REFERENCES

Pignatti S., 1982 - Flora d'Italia. Edagricole, Bologna