

THE TODAY'S FLORISTIC HERITAGE ON THE NUOVA GUSSONEA BOTANIC GARDEN (MT. ETNA, SOUTHERN ITALY).

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The *Nuova Gussonea* botanic garden had been founded in 1979, following an agreement between the Forestry Management Commission of the Sicilian Region and the University of Catania. It is located on the southern slope of Mt. Etna, between 1700 and 1750 m a.s.l., on the B zone of the Mt. Etna natural park.

Its surface is almost 20 hectares large. Among the activities we are carrying out within this botanic garden, the biodiversity increase and conservation are very important; many species of Etnean flora, coming from different altitudinal belts of the volcano, have been introduced. The floristic knowledge of this botanic garden had been the object of our previous studies (Poli Marchese & al., 1987; Poli Marchese & al., 2003).

The aim of this study is to update the floristic data of the garden, to point out the increase of the biodiversity and to highlight how many species became spontaneous after the introduction.

The study has been carried out throughout a floristic analysis, including some characteristics of the species as life forms and chorological types. The results obtained allowed to point out that on the garden there are 136 native species mostly represented by hemicryptophytes (41 %) and therophytes (39 %); geophytes, chamephytes and phanerophytes do not reach a percentage of 10 %.

This flora is mainly constituted by the chorotypes: Euro-Mediterranean (18 %), Endemic (17 %) and Steno-Mediterranean (16 %).

The introduced species of the last period (2001-2006) are 392. They are mainly represented by therophytes (37 %) and hemicryptophytes (32 %); the other life forms are present with a low percentage: geophytes (13 %), chamephytes (7 %), phanerophytes (7 %), nano-phanerophytes (1 %). As regards the chorotypes, the Steno-Mediterranean, Euro-Mediterranean and Eurasiatic chorotypes are mainly represented (28 %, 19 % and 11 % respectively).

After introduction 60 species became spontaneous and they are mainly widespread on the nursery area. Most of these species have not been previously observed: some therophytes as *Euphorbia chamaesyce* L. subsp. *chamaesyce*, *Chenopodium pumilio* R. Br., *Lobularia maritima* (L.) Desv; one chamephyte, *Vinca major* L., etc. All the species become spontaneous belong to the evergreen Mediterranean vegetation belt. Mainly of these species are therophytes (45 %) and hemicryptophytes (44 %). As regards

the chorology there are following types: Cosmopolitan (19 %), Steno-Mediterranean (14 %), Euro-Mediterranean 13 %), Eurasiatic (11 %); other chorotypes: Paleotemperate, Circumboreal, Endemic, Mountain-Mediterranean, Atlantic, Adventitious cover a low percentage (2-5 %).

REFERENCES

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