

1.8 = THE BOTANICAL GARDEN “BERNARDINO DA UCRIA” IN THE NATURAL PARK OF THE NEBRODI (SICILY) AND ITS MISSION TO CONSERVE, EXPLOIT AND SPREAD LOCAL AGROBIODIVERSITY AND OFFICINAL PLANTS

ANNA SCIALABBA¹, IRENE BARTOLOTTA¹, IGNAZIO DI GANGI², MASSIMO GERACI², FRANCESCO M. RAIMONDO¹, VIVIENNE SPADARO¹

¹Department of STEBICEF/ Sezione di Botanica ed Ecologia vegetale, University of Palermo, Via Archirafi 38, 90123 Palermo, Italy; ²Parco dei Nebrodi, Palazzo Gentili, Piazza Duomo, S. Agata Militello, Italy

In Sicily, the academic botanical gardens of Catania, Messina and Palermo have been historically exerting a multiplicity of activities ranging from maintenance of *ex situ* collections to plant conservation policy, practice and ecological restoration, along with more traditional functions related to education and academic research. In the last decade's, two new botanical gardens the “Nuova Gussonea” and the “Bernardino da Ucria, were created in Sicily, with the aim to play more delimited, yet modern and complementary roles. The garden “Nuova Gussonea”, within the Etna Natural Park, is mostly devoted to collect and preserve the native flora of the Mount Etna, with a special focus on endemic and rare plants and their promotion to a wider public. The garden “Bernardino da Ucria”, in the Nebrodi Natural Park, is mainly specialized in promoting the local culture and to collect and preserve the agro-biodiversity of officinal plants in the Nebrodi territory. It is located in the homonymous village in the Messina district where the famous “demonstrator of plants” and co-founder of the Botanical Garden of Palermo University was born. Noteworthy, within Sicily the Nebrodi area is undoubtedly the widest and richest in traditional activities regarding agriculture, sheep farming and silviculture, which produced an agrobiodiversity heritage often representative of individual community cultures. Initially promoted by Palermo University and sustained by the Nebrodi Regional Park, this garden comprises the “Banca vivente del Germoplasma vegetale dei Nebrodi”. Accessions conserved *in vivo* so far include cultivars of crops (*Corylus*, *Pyrus*, *Malus*, *Prunus* sp. pl, *Ficus*, *Juglans*), vegetables (*Phaseolus* and *Lycopersicum*) and officinal plants, that are in part representative of local agricultural practices. Among crops, the collections of *Ficus*, *Pyrus* and *Corylus* are remarkable; while among vegetables, the beans (*Phaseolus*) are represented by over 65 distinct cultivars, comprising 57 climbing and 8 dwarf species (1). Additionally, the garden's bank hosts several botanical collections unrelated to the local flora, representative of officinal and ornamental genus, such as *Salvia*, *Helleborus*, *Paeonia* and *Camelia*. The cryopreserved accessions so far encompass the bean cultivars, mainly found within the Nebrodi Park area. The aim of this particular collection is to further exploit the local agricultural and food heritage by recovering and spreading among local farmers of autochthonous cultivars under extinction risk. Moreover, the garden has recently been equipped with a molecular biology laboratory, performing studies on the genetic diversity of the accessions, as well as activities instrumental to the creation of a related DNA bank, interconnected with the Palermo Botanical garden bank (HBP-Bank). In 2011, the botanical garden of Ucria hosted the Summer School “Knowledge, conservation and management of plant biodiversity of the Mediterranean mountain systems”, organized by Palermo University together with OPTIMA, and financially sponsored by the Nebrodi Park. Similarly, the Summer School “Management of plant biodiversity in the Mediterranean: *ex situ* conservation and germplasm banks” will be held in 2016. The activities of the new Ucria botanical garden and its germplasm bank, is supported by a dedicated Consortium, established by the Nebrodi Park together with Palermo University. The botanical garden “Bernardino da Ucria” is open to public in the spring and summer period. It is also offering didactic visits for educational purposes to several schools.

1) A. Messina, A. Scialabba, C. Salmeri, F.M. Raimondo (2016) Abstracts XI Convegno Nazionale sulla Biodiversità, Matera 9-10 giugno 2016

21-23 settembre 2016 Roma