



BGCI 6th
Global Botanic
Gardens Congress

6th Global Botanic Gardens Congress

6^e Congrès Mondial des Jardins Botaniques

Abstracts - Résumés

June 25-30 2017, Geneva, Switzerland

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BGCI
Plants for the Planet



**Conservatoire
et Jardin botaniques**
Genève

Volga forest-steppe as a scientific and educational structure of the university. Collections of the Botanical Garden account for 3.5 thousand taxa, including 998 taxa of trees, shrubs and vines; 748 taxa of ornamental perennials; 370 species of rare plants (including 187 - listed in the Red Books); more than 800 taxa in the greenhouse, etc. Successful reintroduction has been achieved for 8 species of rare plants, 2 of them are noted in the Red Book of Samara region as disappeared. The Botanical Garden uses a variety of forms of teaching and educational work, participating in the training of students, involving schoolchildren in research.

The living collection of Georgian endemic wheat species at the National Botanical Garden of Georgia (NBGG)

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Georgia is one of the centers of origin of crops. The Near-East is known to be home to 12 wheat species – of them 8 species originated from South Caucasus and 5 emerged in Georgia. Studies and collection of endemic wheat began at the National Botanical Garden of Georgia (NBGG) since 1911 by the Department of Selection and then continued in the 1930's. The collection of rare and threatened endemic wheats, other crops and CWR, destroyed during the crisis of 1990's in Georgia, was restored and re-established as a result of joint efforts of NBGG and Institute of Botany started in 2005. Currently, about 53 samples of the local wheats, among them all endemic species: *T. timopheevii* - "chelta zanduri", *T. zhukovskiyi* - "zanduri", *T. macha* - "makha", *T. paleocolchicum* - "asli", *T. carthlicum* - "dika" and their infraspecific taxa, are protected in the living collections of the NBGG. The wheat species, distinguished with some archaic signs represent the oldest examples of selection of their wild ancestors and that highlights the initial stage of evolution of cultivated wheat. Two species - *T. paleocolchicum* and *T. macha* are interesting objects for studies of the change from brittle to non-brittle rachis, essential morphological development in wheat domestication. As a result of intense introduction of high-productive varieties of wheat, Georgian endemic wheats were removed from farming in the Soviet period (1970-1980's) and are preserved only in collections. These species are distinguished by high immunity and resistance to fungal diseases, short vegetation period and frost-resistance. Dika - *T. carthlicum* is sown in the mountains 2200-2300m ASL. Seeds of endemic species, cultivated in the collection area of the NBGG are available to farmers, for cultivation on private plots. The collections can be used for educational and scientific purposes as well.

The Project CAREMEDIFLORA: Conservation actions for endangered island mediterranean flora

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Mediterranean islands represent a center of plant diversity featured by an endemic richness rate higher than mainland areas. However, such plant richness is threatened by several physical and biological factors. Given that, many plants of these islands are facing the risk of a severe impoverishment and require urgent protection measures. The CARE-MEDIFLORA project, an initiative implemented by institutions of six Mediterranean islands (mostly botanical gardens) and the IUCN/SSC Mediterranean Plant Specialist Group with a long lasting experience in the field of plant conservation, will make a step forward by using ex situ collections to experiment with in situ active actions for some threatened taxa. All the involved institutions will jointly work to address both short-term and long-term needs for the insular endangered plants, and particularly 1) in situ conservation through active management actions (translocations, fencing, etc.), and 2) ex situ conservation through the seed banking of accessions representative of the overall diversity. Based on common criteria, a list of target species was elaborated; it includes 634 taxa, mainly selected by the regional responsibility criterion (88.3%) and/or assessed as threatened in the global and/or regional IUCN RedList (48.6%). Until now, 14 in situ actions were started and 181 seed lots representative of 124 taxa were collected and stored in seedbanks. All project results are disseminated through the website (www.care-mediflora.eu) and social networks. The final objectives of the project will significantly contribute to the achievement of the GSPC targets in the Mediterranean islands of the project.

Ex and in situ plant conservation in the National Botanical Garden of Georgia and objectives of the GSPC (2011-2020) and NBSAP (2014-2020)

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To slow down continuing loss of plant diversity, Georgia, as other countries, is a Party to the CBD and implements the targets of the GSPC via a National Biodiversity Strategy and Action Plan (NBSAP) - 2014-2020. The flora of Georgia, comprises about 4,130 vascular plants, with more than 300 species, endemic to the country and about 600 species, endemic to the Caucasus. We present an overview of plant conservation projects, on-going in the National Botanical garden of Georgia (NBGG), Georgia within the scope of the Millennium Seed Bank Partnership, commenced in 2005. Since then joint projects with the Institute of Botany of the Ilia State University allowed more than 1,400 species to be safeguarded in the Caucasus Regional Seed Bank, operating at the Department of Plant Conservation of the NBGG and duplicated at the Millennium Seed Bank. In 2016, CRSB was supplemented by more than 190 new accessions of wild plants, the most threatened woody species, 10 species of CWR, and seeds of 4 high conservation priority species - *Cyclamen colchicum*, *Campanula kachetica*, *Pulsatilla georgica* and *Paeonia steveniana* within the projects “Saving the Flora of Georgia” (MSBP), CWR project (GCDT), Weston Tree Seed Project (Global Tree Seed Initiative), and BGCI projects aimed at conservation of the most threatened endemic woody species of Georgia’s flora. All collections are duplicated at the MSB. Approximately more than 35% of threatened plant species of Georgia’s flora are banked due to direct support from the MSBP. These activities are in compliance with GSPC objectives and also contribute to the 25% target of the MSB-2, to be achieved for 2020.