



WILD PLANT CONSERVATION ASSOCIATION

Ex-Situ Conservation and Commercial Use of Some Economically Important Species of Wild Flora Protected by CITES Convention

Under the Eco Awards 2009 Program, Wild Plant Conservation Association implemented a project, aiming at supporting conservation and commercial use of economically important species: **Cyclamen vernum Sweet and Galanthus woronowii A. Losinsk** (Snowdrop), which are protected by Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The project was implemented in within 20-25 kilometers of Tbilisi.

During the recent years, with the increase of anthropogenic stress on the environment genetic erosion of unique species of plants is taking place. The ones that have decorative and therapeutic features are the most vulnerable. The main subjects of anthropogenic stress are *Cyclamen vernum* Sweet and *Galanthus woronowii* Losinsk (snowdrop) that are collected *in-situ*, i.e. in wild nature and then sold, thus hindering their self-reproduction. This especially affects Cyclamen, which is propagated by seeds. Besides, there is a growing export of Cyclamen tubers and Galanthus' bulbs. Unfortunately, small businesses involved in these activities are collecting commercially useful species directly from nature. The CITES convention stipulates necessity of taking ex-situ (off site) conservation measures in places such as botanic gardens, special genofond reservations, seeds banks and farmers' plots. In the



*Photo by: Wild plant Conservation Association
Galanthus woronowii,*

western part of the country, these flowers are growing in abundance, but in eastern Georgia they are in danger of extinction.

Project Objectives:

- Develop practical methods to protect two economically important plant species: *Cyclamen vernum* Sweet and *Galanthus woronowii* Losinsk through *ex-situ* conservation in living collections and a seed bank.
- Raise public awareness about the importance of protecting wild flora species.

Implemented Activities and Results:

- An assessment was carried out to study the condition of the populations of the target species in their distribution areas. The GPS coordinates were taken down from 22 areas of Cyclamen distribution and eight areas of Galanthus distribution. Based on the results, a map was charted. Apart from this, plants living alongside the Galanthus and Cyclamen were also described. The complete information was inserted in an electronic database, which is available to all interested persons.
- In total 50 new herbarium samplings were placed in National Herbarium of Georgia
- According to international standards, a seed reserve was created with **29,655 Galanthus woronowii** and **53,989 - Cyclamen vernum Sweet**. The reserve was placed in the regional seed bank of the Caucasus



Photo by: Wild Plant Conservation Association
Cyclamen vernalis

- A living collection of more than 7,000 Cyclamen sprouts and about 3,523 Galanthus woronowii snowdrop sprouts was created.
- Together with British colleagues, a method of vegetative reproduction of Galanthus Woronowii (snowdrop), so called twin-scaling, was elaborated and tested in practice; a bulb of the plant was divided into several parts. From one bulb it was possible to get ten or even more plants within a very short period – seven-eight months. The similar vegetative reproduction method was used to divide tubers of Cyclamen which also yielded positive results.
- A brochure containing information on the necessity of conserving the given species in the

the wild nature and also artificially cultivating them for commercial purposes.

- In the framework of additional award, acknowledging successful completion of Eco-Awards Program 2009-2011, field activities were implemented in May, 2012. Ten expeditions were organized in the vicinity of Tbilisi to gather additional seeds of the Cyclamen and Galanthus and also four expeditions were taken to gather Galanthus in West Georgia, namely in Adjara region, where Galanthus is widely spread in wild nature. As a result of the expeditions 6,500 seeds of Galanthus and 8,000 seeds of Cyclamen were gathered. Part of the seeds will be used for propagation of the given species in the Association's private plots and another part will be stored in the seed bank. The sprouts will be handed to the persons interested in cultivation of these species free of charge.

Project Duration:

March 25, 2009- September 24, 2010

Donors and Partners

The following project was implemented within the framework of the Eco-Awards 2009 Program. Eco-Awards Program is initiated and financed by BP, on behalf of its oil and gas co-venturers (BTC Co. SCP Co.) and administered by Eurasia Partnership Foundation (EPF).

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