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Ochrona *ex situ* zagrożonych gatunków roślin na przykładzie działań Centrum Badań i Ochrony Roślin Górskich w Zakopanem

Ex situ conservation of endangered plant species in the Centre for Research and Conservation of Mountain Plants in Zakopane

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SUMMARY

The paper presents the results of propagation of selected, most endangered and rare plant species of the Tatra Mountains and their surroundings in the Mountain Botanical Garden in Zakopane. The species include: *Woodsia ilvensis*, *Pulsatilla slavica*, *Cochlearia tatrae*, *Draba siliquosa*, *Astragalus penduliflorus*, *Linnaea borealis*, *Erigeron hungaricus*, *Saussurea pygmaea*, *Senecio umbrosus*, *Juncus triglumis*, *Carex pulicaris* and *Eriophorum gracile*. Seeds or spores of the species were directly placed in the soil for germination or were disinfected and chemically or physically stimulated *in vitro*. In some cases, micropropagation techniques were used to derive cultures from vegetative tissues of the plants. Cultivation of *ex situ* populations in the garden was not accomplished in only two species. Sporophytes of the fern *W. ilvensis* have been successfully developed but they have not been acclimated to outdoor conditions yet. In the case of *L. borealis* which did not produce seeds in the Tatra population, we obtained an undifferentiated callus but further attempts are made to regenerate plants from the tissue. In all other cases, viable individuals have successfully initiated cultivation in the garden. These plants can now serve as a material for *in situ* conservation initiatives that rely on introduction of plants to the wild.