

## The Importance of Biodiversity Preservation in Romania

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### SUMMARY

Most ecosystems all around the world are affected by factors such as urbanization, pollution, habitat destruction, fragmentation and degradation, spread of invasive alien species, over-collecting, unsuitable agriculture and forestry practices and climate change. These threatened ecosystems need protection of their native plants, this can be done through *ex situ* conservation, like seed preservation or storing them in botanical gardens. Another method used to preserve biodiversity of endemic plants in ecosystems is represented by *in vitro* cultures, which preferably is a complement to *in situ* methods, but it can also be used alone as a last resort to restore the ecosystems native plants. European Flora is among the most globally threatened in the World. The strong industrialization, the major land use, the overexploitation, the habitats fragmentation and destruction, and climatic changes led to 4.700 endemic vascular plants being in danger of extinction (<http://ec.europa.eu/environment/life/>). In Romania, nature conservation and protection is done in particular by declaring and setting up a national network of protected areas. As a consequence of its geographical position, our country enjoys the existence of a unique biodiversity of ecosystems and species. Biodiversity conservation is made through the Ecological Network Natura 2000 (<http://www.natura2000.ro>) and it allows the preservation and further development of biodiversity in Romania. Stopping the loss of plant genetic resources represents a constant concern of scientists. The classical conservation approaches require large areas and high labor expenses, exposing the plant material to environmental damages and pests. The integrated approach of biodiversity conservation involves both *in situ* and *ex situ* strategies. Several authors sustained the important role of *in vitro* conservation methods in the management and conservation of genetic resources of endangered plant species (Benson, 1999; Holobiuc *et al.*, 2009). One of the greatest obstacles within *in vitro* cultures is exogenous and endogenous contamination, especially when dealing with an endemic plant that is only found in the wild with a very limited germplasm (Sarasan *et al.* 2006).

**Keywords:** biodiversity, preservation, Romania

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