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=== ORAL PRESENTATION ABSTRACTS ===

In Vitro Multiplication of Romanian Endemic and Rare Species *Lychnis Nivalis* Kit

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Currently, the biodiversity conservation and sustainable development are a major challenge of human society, as it is stipulated in numerous documents: The European Union's Habitat Directive, 1992, CBD Rio de Janeiro, 1992, Global Strategy for Plant Conservation (GSPC) - Nagoya Protocol, 2010, etc. As specified in the GSPC document, the long term conservation, management and re-establishment of plant diversity together with their habitats and ecosystems must be done both *in situ* – through the establishment and/or conservation of species in their natural ecosystems, with minimal management, as well as *ex situ.*

Our studies in the field of *ex situ* conservation through *in vitro* cultures of endemic/endangered plant taxa are focused on species mentioned by Sârbu *et al*. (2007) and in Red Book of Vascular Plants of Romania (Dihoru and Negrean, 2009). *In vitro* conservation of these taxa is based on *in vitro* cultures initiation, micropropagation, medium term preservation and cryopreservation, as well as the study of somaclonal variability, as a consequence of preservation by *in vitro* collections. The already studied and in vitro conserved taxa are: *Dianthus callizonus* Schott & Kotschy, *D. giganteus* D'Urv. ssp. *banaticus* (Heuff.) Tutin, *D. glacialis*

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Haenke ssp. *gelidus* (Schott, Nyman & Kotschy) Tutin*, D. henteri* Heuff. ex Griseb. & Schenk, *D. pratensis* M. Bieb. ssp. *racovitzae* (Prodan) Tutin, *D. trifasciculatus* Kit. in Schultes ssp. *parviflorus* Stoj. et Acht., *D. spiculifolius* Schur, D. *tenuifolius* Schur, and *D. nardiformis* Janka (Cristea *et al*., 2014, Holobiuc *et al.,* 2009 etc.).

The following species *Lychnis nivalis* Kit., *Moehringia jankae* Griseb. ex Janka and *Silene dinarica* Spreng. are *in vitro* currently studied. *Lychnis nivalis* Kit. is endemic for Romania in Rodnei Mountains, considered rare or vulnerable in Romanian Red Lists. In case of *L. nivalis*, *in vitro* culture was initiated from seeds coming from 2 different locations, near Iezerul Lake and near Stiol Lake. $HgCl_2$, H_2O_2 and NaOCl were used as disinfectant agents. The seeds sterilization rate was over 99% and the germination rate, after 83 days, was 60 %. There was studied the influence of 5 cytokinins on the *in vitro* multiplication rate: 6-benzyladenine (BAP), zeatin (Z), 2-isopentenyladenine (2iP), thidiazuron (TDZ) and meta-topolin (mT), each in 2 concentrations – 0.5 and 1 mg/l. The highest multiplication rate was obtained in case of BAP and TDZ, 30 and respectively 28 generated neoplants/inoculum, after 62 days from inoculation.

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R E F E R E N C E S

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