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Abstracts



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CONSERVATION ASPECTS OF SOME RARE SPECIES FROM THE GENUS PHYSARUM (MYXOMYCETES) IN UKRAINE

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Many fungi and fungi-like organisms, in particular protozoan fungal analogues from Myxomycetes, are threatened and declining globally. Most existing fungal conservation projects, however, deal only with macrofungi. This study evaluates Physarum, the biggest genus of Myxomycetes, from a conservation viewpoint. Out of forty Physarum species recorded in Ukraine, only three - P. album (Bull.) Chevall., P. cinereum (Batsch.) Pers. and P. viride (Bull.) Pers. - can confidently be evaluated as "Least Concern", being widely distributed and showing no sign of population change. Six species -P. bivalve Pers., P. leucopus Link, P. compressum Alb. et Schwein., P. contextum (Pers.) Pers., P. globuliferum (Bull.) Pers. and P. psittacinum Ditmar - are also likely to be of "Least Concern", as they are fairly common in Ukraine. Seven species - P. flavicomum Berk., P. leucophaeum Fr., P. citrinum Schumach., P. decipiens M.A. Curtis, P. gyrosum Rostaf., P. mutabile (Rostaf.) G. Lister and P. pulcherripes Peck - are possibly of "Least Concern", having been recorded from several Ukrainian regions. The remaining 24 species (60% of the genus) have been found once or just a few times from a small number of Ukrainian regions. Of these, P. albescens Ellis ex T. Macbr. P. alpestre Mitchel, S.W. Chapm. et M.L. Farr and P. vernum Sommerf. belong to the special ecological group of nivicolous myxomycetes, and can be considered as "Vulnerable" because of the effects of climate change. Physarum lakhanpalii Nann.-Bremek. et Y. Yamam., usually tropical, has been found in the mediterranean climate of Crimea. Some species from this big group - P. bitectum G. Lister, P. didermoides (Pers.) Rostaf., P. pusillum (Berk. et M.A. Curtis) G. Lister and P. virescens Ditmar - are rare not only in Ukraine, but have also been included in the "Red list of Leningrads'ka oblast" (Russia). There are, furthermore, several Physarum species which are known only from localities threatened by urban development (P. licheniforme (Schwein.) Lado - near Lviv; P. digitatum G. Lister & Farquhorson - near Kyiv).

Myxomycete conservation may be effectively realized through protected areas. It is therefore necessary to study these organisms in the biosphere,

nature reserves and nature parks with the main objective to find new locations for rare species and to monitor their populations.

VIRTUAL HERBARIUM OF BRAZILIAN PLANT AND FUNGI AS INDUCER OF ADVANCES ON TAXONOMY AND MYCOLOGICAL COLLECTIONS

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The "Virtual Herbarium of the Brazilian Plant and Fungi" is one of the National Institutes of Sciences and Technology created to stimulate and support research nets in the country. The herbarium mission is to provide a free and open data infrastructure for the scientific community, for policy and decision makers, and for society. Its goals should be achieved by integrating data about plants and fungi collected in the country and also deposited abroad. To fulfill its mission the Virtual herbarium aims to: Expand the knowledge about the diversity of flora and mycota in Brazil; improve the quality of the herbaria collection; encourage the formulation of public policies aimed at ensuring the sustainability of collections, the training of taxonomists, and support for biodiversity studies; encourage free and open access to data and information in an useful and friendly format; offer data and information to support that environmental sustainability is just as important as social and economic development for public policies.

Today the Institute is formed by more than 50 herbaria from all Brazilian regions and its activities are focused on research, training, and knowledge transfer to society (http://inct.florabrasil.net). The research activities involve (a) taxonomic and diversity studies; (b) the integration of Mycology/Botany/Information Technology to offer tools that make online search easier; (c) the use of data on species-occurrence in the formulation of public policies regarding diversity and conservation of fungi and plants.

During these two years of functioning the Institute promoted: (a) 23 courses on taxonomy and herbarium management, benefiting > 400 students and technicians; (b) visits of 32 specialists who revised/identified 23,924 exsicatae in 43 herbaria of the country. Only last year, > 200 million entries attended the search criteria of the users and > 46 million records were accessed, which means 26 times the total number of records in the Virtual Herbarium net in December 2010. This shows that the Institute is bringing together research groups and information about Brazilian mycological and