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PART I Ecology, Biogeography, Biodiversity

Passportication for Myxomycetes Conservation

Tetyana Kryvomaz

Kyiv National Construction and Architecture University, 31, Povitroflotskyi Ave., Kyiv 03680,

Ukraine

Abstract: Observation of myxomycetes conservation activity was made. Propose the introduction of “Environmental safety passports of species” for improving of conservation policy.

First steps for conservation of myxomycetes was the creation of a myxomycetes reserve by Bruce Ing in Wales near the town of Mold, in a small town park (UK). Martin Schnittler analysed 413 myxomycetes species from Germany by special conservation categories. Yuri Novozhilov proposed to include 21 endangered species of myxomycetes in the Red Book of Nature of Leningradskaya oblast in Russia, then Alexander Lebedev recommended including in the Red Book of Tver’ oblast in Russia 10 species of rare myxomycetes. Preliminary analyses of threat were made by author for 278 myxomycetes species of Ukraine. Species considered as endangered included 12 myxomycetes species, with 22 mainly nivicolous species being assessed as vulnerable. Detail evaluations were made for the biggest genus of myxomycetes, *Physarum*. Irina Dudka is preparing a proposal for the next edition of Red Book of Ukraine where myxomycetes were included. The IUCN Specialist Group promoting Conservation of Myxomycetes is beginning to prepare a foundation on which future conservation policy for Myxomycetes can be developed. The first myxomycete *Diacheopsis metallica* was published in Red List Species on the Edge of Survival. Evaluation of conservation status for 10 species of nivicolous myxomycetes and 10 species of order Trichiales was made. The information base included specimens, databases, bibliographic sources and field observations. Using the program “Geocat” (geocat.kew.org) estimates were made of extent of occurrence and occupancy. For each species population trend and threats were analyzed, and evaluation using IUCN criteria took place. For improving of conservation policy the introduction of “Environmental safety passports of species” for species of myxomycetes has been proposed to make. This certificate include of dates about morphology, metabolism, life cycle, geographical distribution of species and influence of abiotic and biotic factors with estimation of risks. As result of this scientific document will be analysis of threats and conservation recommendation for myxomycetes.

Key words: Myxomycetes; conservation; passports of species