

## OLIGOTROPHIC PEAT BOGS AS MACROFUNGAL REFUGES IN THE EASTERN CARPATHIANS

Nagygomba refúgiumok a Keleti Kárpátokban: tőzezlápok

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Oligotrophic peat bogs are vulnerable, special habitats with unique fungi, preserved only in small spots. The climatic extremities accelerate their degradation. Systematic field surveys have been made from 1998 on the macrofungi of six bogs: Mohos, Lucs, Ördög-lake, Fenyőkút, Veresvíz and Poiana Stampei in *Pino-Sphagnetum magellanicii* (PIN-S) and *Sphagno-Piceetum* (S-PIC) stands. A total number of 294 taxa were documented with 1063 occurrence data, the majority (264 taxa, 784 data) from S-PIC, a lower number (90 taxa, 279 data) from PIN-S. Constant character species from all stands were *Lactarius helvus*, *Russula decolorans* and *Russula paludosa*. In the S-PIC stands several widespread spruce-connected species were fructifying. Because of their high data number, *Cortinarius sanguineus*, *Hypholoma capnoides*, *Lactarius lignyotus*, *Lactarius picinus*, *Leccinum vulpinum*, *Pholiota flammans*, *Russula vinosa* and *Tylopilus felleus* can be highlighted. Some species of the surrounding beech stands can penetrate here, like *Boletus reticulatus*, *Lactarius vellereus*, *Russula solaris*. Beside in drier years, species indicating disturbance can also occur: *Chlorophyllum rachodes*, *Crucibulum laeve*, *Inocybe geophylla*. From the rare species, *Albatrellus* (*A. confluens*, *A. ovinus* and *A. subrubescens*) and *Hydnellum* (*H. aurantiacum*, *H. geogenium*, *H. peckii*, *H. scrobiculatum* and *H. suaveolens*) species can be mentioned, as well as *Bankera violascens*, *Lactarius repraesentaneus*, *Lactarius trivialis* and *Mitrula paludosa*. In the PIN-S stands frequent characteristic species were *Amanita fulva*, *Cortinarius caperatus*, *Fomitopsis betulina*, *Fomitopsis pinicola*, *Lactarius vietus* and *Suillus variegatus*, all fructifying in lower number in S-PIC, too. Constant character species for PIN-S were *Exobasidium vaccinii*, *E. karstenii* and *Galerina paludosa*. Rare species were *Cortinarius chrysolitus*, *C. tubarius*, *Exobasidium juelianum*, *Hypholoma ericaeum*, *Lactarius sphagneti*, *Pseudoplectania sphagnophila*, *Russula longipes* and *R. consobrina*. The functional distribution showed a mycorrhizal dominance in all stands (50-80%), followed by the wood inhabiting saprotrophic (10-30%). The proportion of the soil saprotrophic species was between 10-15% in the S-PIC, while the rare functions were occurring only in the PIN-S: moss-connected (*Arrhenia onisca*, *A. sphagnicola*, *Bogbodia uda*, *Galerina gibbosa*, *G. paludosa*, *Hypholoma elongatum* and *Rickenella fibula*); and biotrophic parasite (*Exobasidium* spp.). Ten species are stated in the Romanian Red List, three vulnerable (VU): *Catathelasma imperiale* and *Craterellus lutescens* from S-PIC, and *Suillus flavidus* from PIN-S; seven near threatened (NT), all from S-PIC: *Amanita regalis*, *Clitocybe odora*, *Gyromitra infula*, *Hydnellum suaveolens*, *Lactarius picinus*, *L. uvidus* and *Rickenella fibula*. Beside *Lactarius helvus*, *Leccinum variicolor*, *Porphyrellus porphyrosporus*, *Russula claroflava* and *Sarcodon scabrosus* are probably endangered.