

**Holec, J.** 2008. Interesting macrofungi from the Eastern Carpathians, Ukraine and their value as bioindicators of primeval and near-natural forests. – *Mycologia Balcanica* **5**: 55-67.

**Abstract.** In 1999 and 2007 mycobiota of several locations in the Eastern Carpathians, Ukraine was studied. The Chornohora, Svydovets and Horhany mountain massifs were visited, especially locations with natural (primeval or near-natural) forests. Records of 32 rare, threatened or overlooked species of macrofungi are published. Ten of them are probably new to Ukraine (*Cordyceps rouxii*, *Gymnopilus josserandii*, *Hydropus atramentosus*, *H. marginellus*, *H. subalpinus*, *Hypholoma subviride*, *Hypoxylon vogesiacum*, *Lopadostoma pouzarii*, *Omphalina cyanophylla*, *Skeletocutis carneogrisea*) and 10 can be considered bioindicators of natural forests (*Cystostereum murrayi*, *Hohenbuehelia auriscalpium*, *Hydropus atramentosus*, *Hypoxylon vogesiacum*, *Multiclavula mucida*, *Omphalina cyanophylla*, *Phellinus nigrolimitatus*, *P. pouzarii*, *Rigidoporus crocatus*, *Skeletocutis stellae*). The records are compared with the mycobiota of the Poloniny National Park, Slovakia and with data on indicator species of fungi from abroad. The Eastern Carpathians (covering parts of Slovakia, Poland, Ukraine and Romania) seem to be the best refuge for rare (especially lignicolous) fungi of mountain beech and mixed forests in Europe.

**Key words:** biodiversity, bioindication, Carpathian Biosphere Reserve, lignicolous fungi, near-natural forests, primeval forests, Zakarpatska oblast