

The role of wild fowl in the circulation of potentially pathogenic fungi in the biosphere

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Studies on the transfer of etiological factors of diseases known to affect humans, including mycoses, very clearly emphasize the special role of wildfowl, particularly birds associated with the hydrosphere. The aim of the research was to evaluate the taxonomic diversity and prevalence of fungi colonizing selected segments of the respiratory and alimentary tracts of Charadriiformes, Mallards, Cormorants and Little Auks inhabiting polar areas.

Using standard laboratory-based mycological analyses, 57 species of fungi from 29 genera were isolated. The most common were the potentially pathogenic fungi listed in the biosafety classification (BSL). Most noteworthy were the relatively frequent occurrence of *Cryptococcus neoformans, Cr. macerans* and *Cr. laurentii* in most birds, the occurrence of thermophilic species – *Aspergillus fumigatus* and *A. clavatus* in Little Auks, and the occurrence of species typical of the Mediterranean climate – *A. versicolor* or tropical climate – *A. niger* in Mallards and Charadriiformes.

Mycoses occur more commonly in the carrier state, such as in water fowl, than in the other vertebrates, and are found sporadically in free-living birds not fed by man. Hence, the role of the analyzed birds in the epidemiological chain of these diseases is extremely important. The most alarming finding is the likelihood of transmission of dangerous anthropopathogens over large distances from various continents.