



THE IMPORTANCE OF LICHENS AND THEIR CONSERVATION

A zuzmók és természetvédelmük jelentősége

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Although we are not always aware of their existence, lichens play vital roles in nature and in human life. However, they are prone to threats due to environmental uncertainty. Therefore, their redlisting and conservation by law is necessary and justified. Lichens in addition to their importance in the ecosystem (in soil production, primary succession, allelopathic effects), give additional services to humans by their contributions to the biodiversity, functioning as biological indicators, providing a huge number of bioactive products (of antibiotic, analgesic or antitumor nature). The aim of our recent review was to investigate the status of lichen conservation and its research worldwide, including the role of the IUCN in the conservation of lichen species. Data collected from journal publications (n=29) originated from simultaneous searches of 4 databases (Google Scholar, Recent Literature on Lichens, Scopus and Web of Science) were discussed referring altogether 91 publications. The publications were analysed by the threats to lichen conservation, the factors influencing conservation challenges, the measures of recovery and the geographic regions studied. The research and identification problems, habitat destruction and shrinking, human pressure, industry, erroneous conservation practice, global change, low population size, human pressure, lichens' vulnerability to the environment and climate change represent major threats to lichens. While Europe has a leading role in conserving its heritage of lichens compared to other continents, tropical areas, especially Africa, lack sufficient data in the research on lichens. Institutional measures of protecting nature through policies would serve as control and conservation methods of lichens. Despite the lack of data on lichens, they are known to have a supreme role in the ecosystem and human life, thus the extended knowledge gaps in certain areas should not cause a delay in quick implementation of conservation policies that prevent further threat.

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