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ALICJA AGNIESZKA KLEJPS, PRZEMYSŁAW PIOTR TOMCZYK

Department of Geobotany and Plant Ecology, Faculty of Biology and Environmental Protection, University of Lodz, Banacha 12/16, 90-237 Łódź, E-mail: klejps.alicja@gmail.com, tomczyk@biol.uni.lodz.pl

THE SEEDS OF ORCHIDS – A GREAT NUMBER AT THE COST OF SIZE

Summary

Orchids represent a very diverse group of plants occurring worldwide except Antarctica. Their seeds are significantly different from those of other angiosperm plants, but are similar within this group. They are very small, referred to as 'dust seeds', and consist of relatively small embryo surrounded by a thin seed coat. The space between the embryo and the tissue covering is filled with air, which plays a role in the spread of seeds with the wind (anemochory). Except of wind, in the dispersal of orchids are also involved animals and water. In terms of shape, the seeds, can be elongated and slender, rotund or oval, but they never have any other additional structures. The seeds of orchids hardly contain any reserve materials; furthermore, their embryos are unable to use them and to germinate until they enter into a symbiotic relationship with an appropriate fungus. This is one of the factors that enabled such a significant reduction in the size of the seeds that the plants compensated by a large increase in their number. This strategy proved to be evolutionarily advantageous, which manifests itself by ongoing prosperity of the Orchidaceae family.

Key wards: morphology, mycorrhiza, orchids, propagation of plants, seeds