

BOOK ANNOUNCEMENT

Mirek, Z. & Nikel, A. (eds). 2009.

Rare, Relict and Endangered Plants and Fungi in Poland.

W. Szafer Institute of Botany, Polish Academy of Sciences, Kraków. Paperback, 567 pp. ISBN: 978-83-89648-78-5

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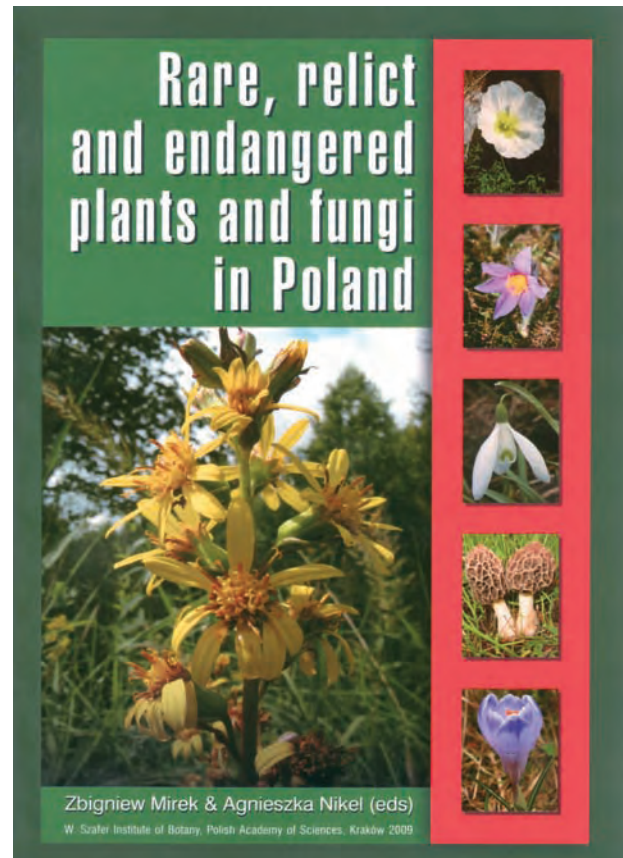
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The book is a collection of articles based on reports presented at a scientific conference in Poland several years ago. It is brought out by the W. Szafer Institute of Botany, Polish Academy of Sciences, Kraków. It comprises the results of scientific studies of 97 authors, presented in 62 articles. All are dedicated to problems relating to the rare and endangered genetic plant and fungi fund of the country and its protection. Many habitats, which give refuge to plant and fungi species, are disturbed by human activities which enhance the threat of their extinction. This is the major reason on a world scale for loss of biodiversity, with rare, relict and endemic species being most vulnerable. This is also one of the reasons for researchers to focus their attention on the biology and ecology of these categories of organisms, in order to protect them better and in the most adequate way.

The articles are alphabetically arranged according to the family names of the authors, with the exception of six invited articles, which are put in the beginning.

A Subject and an Authors' Index are placed at the end of the book to facilitate the readers in using articles of special interest.

Although, as the first Editor notes in the beginning of the book, "...many of the papers cover various issues which could be categorized *ad infinitum* and many of them take an integrative approach to a wide range of problems", information on the rare, relict and



endangered species in the different articles could be thematically grouped *grosso modo*:

- **Methods and procedures for preservation:** national monitoring of threats and the effectiveness of plant protection in Poland; integrative ecological-genetic studies in conservation of rare and endangered species, as well as need for genetic diversity assessment of limited-range species; standardization of the criteria for regional evaluation of the level of threat; using species richness, habitat beta-diversity and regionally threatened plants in planning spatial management strategies for biodiversity conservation; need of detailed knowledge of the population size of rare and threatened species on local and regional scale; the role of post-exploitation excavations as supplementary habitats for protected and rare vascular plants; methods and procedure to

preserve seeds of endangered species and guidelines for exhibiting rare and endangered species in some Botanical Gardens; national monitoring of threats.

- **Red lists and protected species of:**

- **National Parks and Reserves** – rare, threatened and protected species in the Kampinoski National Park and Bolimowski Landscape Park (C Poland), Ojców National Park (S Poland); active and passive protection of plants and fungi in the Pieniny National Park.

- **Other territories:** 36% of all vascular plants are red-listed for the Wyżyna Małopolska uplands region, the protected species in humid *Molinia* meadows, as well as in the Płaskowyż Proszowicki Plateau in the same territory of S Poland; list of threatened species and proposed changes to it in Wielkopolska region, Kuźnica Wąreżyńska Sandpit, the Skotawa River Valley, the Opole Silesia, as well as in the Wyżyna Śląska; status of a few species from the *Red Data Book*; threatened xerothermic vascular plants in a territory of SE Poland, and in railway areas of the Lublin region (E Poland).

- **Monitoring of different species:** *Astragalus penduliflorus*, *Dictamnus albus*, *Streptopus amplexifolius*, different orchids like *Herminium monorchis*, *Cephalanthera longifolia*, *Orchis purpurea*, *Epipactis palustris*; threats to grasses and suggestion for threat categories of five grass species.

- **Extinct species:** very valuable information is reported about this category – for the area of Lublin city (E Poland) are listed 107 species of vascular plants, belonging to 45 plant families and regarded as extinct, 12 species for the territory of Wyżyna Małopolska uplands region, other 40 taxa are extinct in Wielkopolska (W Poland), four in Bolimowski Landscape Park (C Poland), four halophytes for the Pomorzhe Gdańskie region, 18 species extinct and 22 probably extinct (not confirmed in 30–40 years) for the territory of Ojców National Park (S Poland), and seven for the Płaskowyż Proszowicki Plateau (W Poland)

- **Fungi, lichens and mosses:** amateur mycology in Poland today and tomorrow; data on threat and distribution of two *Basidiomycota* species; ripari-

an and alder forest as shelters for rare and threatened macromycetes; distribution of polypore fungi in central Pomerania; new lichen species for C Europe; threatened and protected lichens in the Bieszczady Mts; information on 76 rare moss species in Ojców National Park.

- **Data on the distribution of different species (new species, new localities, or current state of its populations):** new localities are reported for *Galanthus nivalis*, *Scilla bifolia*, *Malaxis monophyllos*; threat and protection problems of *Hacquetia epipactis*, *Trifolium rubens*, *Matteucia struthiopteris*, *Phyteuma spicatum* subsp. *coeruleum*, *Helichrysum arenarium*, *Chamaedaphne calyculata*, distribution of the very rare *Dryopteris affinis* in Polish lowlands and of seven boreal *Carex* species in N Poland.

- **Glacial relicts:** taxonomic status of *Pinus uncinata* from the Kotki rocks; distribution of glacial relicts in the peat bogs of the Kotlina Orawsko-Nowotarska Basin; ancient origin of *Pinus sylvestris* f. *turfosa*.

- **Problems of ex-situ, in-situ conservation and protection of apomictic and halophyte species:** notes and suggestions for solving *ex-situ* conservation; options for *in-situ* and *ex-situ* conservation and protection of the large apomictic *Taraxacum* genus complex; data on 20 halophyte threatened species in N Poland.

The book is edited by **Z. Mirek & A. Nickel**, in collaboration with **M. Zarzyka-Ryszka & J. Wójcicki**. Undoubtedly, mention deserves their precise work, which has contributed greatly to the quality of the publication. The articles are supplemented by many figures, tables, schemes, lists of threatened species, drawings and photographs.

The book contains ample up-to-date information on the rare, relict and threatened plant and fungi species. It reflects the already undertaken steps, as well as the proposals for undertaking other necessary moves so as to protect this valuable genetic fund.

Undoubtedly, the book will be of interest not only to specialists and Polish Nature-lovers, but also to other countries, where these problems are of particular interest and significance for biodiversity protection.