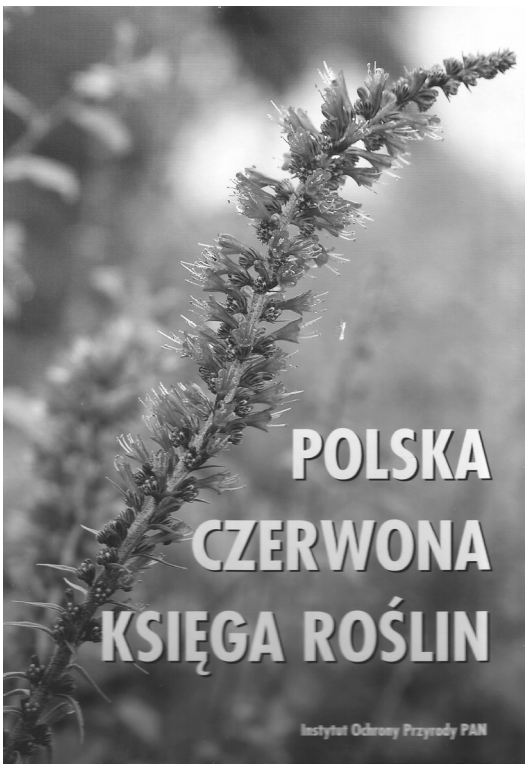
A VALUABLE PUBLICATION FOR NATURE CONSERVATION: THE THIRD EDITION OF THE RED DATA BOOK OF POLAND

Polish Red Data Book of Plants. Pteridophytes and flowering plants / Eds R. Kaźmierczakowa, K. Zarzycki, Z. Mirek. – Kraków: Instytut Ochrony Przyrody PAN, 2014. – 896 S.



The publication of the third edition of the Polish Red Data Book of Plants (Kaźmierczakowa R., Zarzycki K., Mirek Z. 2014. Polska Czerwona Księga Roślin. Paprotniki i rośliny kwiatowe. Wyd. III, uaktualnione i rozszerzone. Instytut Ochrony Przyrody PAN, Kraków, 896 p.) has been an important event in the life of Polish botanical community. It is a fundamental monograph about the current status of rare species of the Polish flora. This book is characterized by particular specification in data processing about 360 taxa of rare ferns and flowering plants, including 85 new ones over the previous edition.

The structure of the reviewed monograph is similar to such publications in general. Not analyzing it, we would like to notice that the content of some chapters has been expanded considerably at the expense of both generalization of literature data and considerable original information on the current state of species. Nowadays Polish botanists are probably the worldwide leaders in generalizing the information about rare plants in the National Red Data Books. At present we do not know any similar publications which contain such exhaustive data about distribution of species in the country, ecological, phytocenological and population characteristics, risks and recommendation for effective protection of rare and endangered plants.

We would like to draw special attention to several positive points in descriptions of each taxon in the Red Data Book of Poland:

A) Rarity status was determined not only for Poland, but also for the neighboring countries.

B) Information about dynamics of distribution in Poland and state of populations is given for majority of species in the publication. This indicator shows that botanists and ecologists have been paying special attention to study and conservation of rare species of plants in the country for a long time. Maps of distribution of rare species in Poland are perfect as well. They contain a lot of various data necessary for understanding the current status and its changes for each species.

C) English summary provides valuable information about rare species of plants for many readers.

D) Professionally made photographs of plants, pictures of the general habitus of plants and some their parts are given. It is extremely important for proper identification of taxa.

Of course, it should be recognized that a great team of experts of different levels was involved in data collecting

and preparation of the publication: 182 specialists took part in the work on various plant groups.

However, we have several remarks and advice for our colleagues which hopefully will be useful for them to discuss. First of all, we think that placement of schematic maps showing the range of taxa in Europe was not a successful attempt, mostly because these maps are outdated. Of course, they allow seeing how species are located in relation to the center of the European range; however, they have many inaccuracies, especially lack of information about new findings. In addition, there is a risk that some investigators may use these data as an original source in the future, because the Polish Red Data Book of Plants is an authoritative publication and these maps may be copied without needed changes. We would like to provide several examples:

A) Authors did not take into account the data about distribution of *Dryopteris villarii* (Bellardi) Woynar ex Schinzet Thell. in the Crimean Peninsula and the Caucasus (Litvinskaya S.A. *Dryopteris villarii* (Bellardi) Woynar ex Schinz et Thell. in: the Red Data Book of Krasnodar region (plants and fungi) Ed. S.A. Litvinskaya, Krasnodar, 2007; Bezsmertna O.O. *Dryopteris villarii* (Bellardi) Woynar ex Schinz et Thell. (*Dryopteridaceae*), a new species for the flora of Ukraine // Ukr. Bot. J., 2011, **69** (6): 829–832; etc.).

B) Updated information about distribution of rare species of the genera *Asplenium* L. and *Woodsia* R.Br. is not mentioned by the authors (Red Data Book of Ukraine. Plant Kingdom. Ed. Ya.P. Didukh, Kyiv: Globalconsalting, 2009, 912 pp.; Bezsmertna O.O., Peregrym M.M., Vasheka O.V. Genus Asplenium L. (Aspleniaceae) in Ukraine, Ukr. Bot. J., 2012, 69(4): 544–558), though it appreciably allowed specifying modern ranges of these species.

C) Maps and texts about geographic distribution of *Fritillaria meleagris* L. and *Allium strictum* Schrad. have several inaccuracies and mistakes. Real distribution patterns of these species in Ukraine are quite different from those indicated in the Polish Red Data Book of Plants. Besides, it was not mentioned that *F. meleagris* has a disjunctive range with some fragments in West Siberia and Altai (Vlasova N.V. (1987). *Fritillaria* L. In: L.I. Malysheva & G.A. Peshkova (eds.), Flora Sibiri. Vol. 4, *Araceae–Orchidaceae*. (pp. 99–101). Novosibirsk: Nauka, Sibirskoe otdelenie).

We have also noticed similar inaccuracies in the maps of distribution of some other species, especially in regions around the Sea of Azov and the Black Sea: *Aster tripolium* L., *Atriplex litoralis* L., *Carex extensa* Good, *Halimione pedunculata* (L.) Aellen, *Plantago coronopus* L., *Ruppia maritima* L., *Stipa borysthenica* Klokov ex Prokudin, and *Trapa natans* L. (Kolomiychuk V.P. Synopsis of vascular plants flora of the coastal zone of the Azov Sea. Ed. T.L. Andrienko, Kyiv: Alterpress, 2012, 300 pp.; Red Data Book of the Azov Sea Region. Vascular plants. Eds V.M. Ostapko, V.P. Kolomiychuk, Kyiv: Alterpress, 2012, 276 pp.; Yena A.V. Natural flora of the Crimean Peninsula, Simferopol: «N. Orianda», 2012, 232 pp.). It is also incorrect that the authors have accepted plants from inland continental ecotopes as *Atriplex littoralis* L., which is *A. intracontinentalis* Sukhor. (Sukhorukov A.P. Zur Systematik und Chorologie der Russland und benachbarten staaten (in den Grenzen der ehemaligen UdSSR) vorkommenden *Atriplex-Arten* (*Chenopodiaceae*), Ann. Naturh. Mus. (Wien), 2007, Bd 108B, S. 307–420.)

The criteria used for selection of species for the Polish Red Data Book of Plants are not quite understandable. Probably, sometimes a subjective method was used during this process.

We do not support the approach of including the alien and naturalized species in any Red Data Book, like *Adonis flammea* Jacq., *Sisymbrium polymorphum* (Murray) Roth, *Conringia orientalis* (L.) Dumort., *Scandix pecten-veneris* L., *Caucalis platycarpos* L., *Thymelaea passerina* (L.) Coss., *Sclerochloa dura* (L.) P. Beauv. This may devalue the importance of conservation of absolutely rare species from similar publications for the public, though this approach is acceptable for scientists.

Thus, Polish botanists have prepared a remarkable publication which demonstrates considerable progress in studies and conservation of rare and endangered species of plants in the country. We believe that the Polish Red Data Book of Plants is a good example for preparing similar publications in other countries and regions.

We sincerely congratulate Polish botanists with this noteworthy publication of both theoretical and practical importance for nature conservation. We express our sincere gratitude to Prof., Dr. hab. Karol Latowski and Dr. hab. Zbigniew Celka at the Adam Mickiewicz University in Poznan for passing a copy of the Polish Red Data Book of Plants, a valuable present to one of the authors of this review.

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