

## BOOK REVIEWS

**Wild Flowers of Greece. 2009**

Text by Kit Tan &amp; Arne Strid

Colour plates by Niki A. Goulandris

Goulandris Natural History Museum, Kifissia, Greece.

Hardback, 253 pp. ISBN: 978-960-464-107-9

**Ana Petrova**

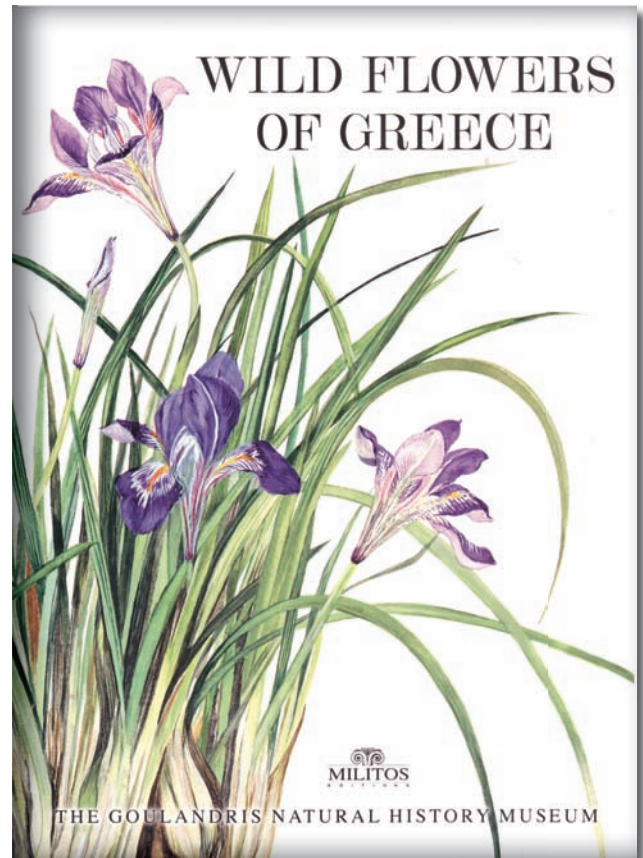
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The book contains 121 colour plates with 130 illustrated taxa of the Greek flora, one of the richest in Europe and with the most numerous endemics. The taxa belong to 36 families and 69 genera. Every taxon is attended with a correct name, short morphological description, data including chromosome number, flowering time, habitats, distribution in Greece and elsewhere, etymological and other valuable notes. This information is provided by the well known scientists-botanists Kit Tan and Arne Strid, who are the editors and authors of the *Flora Hellenica*, collaborators and good friends of the Museum.

The foreword to the book is written by Prof. Peter Raven, President of the Missouri Botanical Garden, one of the world's leading botanists and advocates of biodiversity, conservation and sustainable environment, who has headed the Garden for three decades. *Time* magazine described him as "Hero of the Planet".

Raven directs attention to the unique biota of Greece which "*must be sustained and preserved with clear attention to future climate trends and changing patterns of human activities*".

The Introduction is written by Arne Strid and edited by Kit Tan. As an expert on the Greek flora, he points out the reasons and factors determining the richness of the unique Greek flora and offers useful and interesting information on the geography, geology, soils and climate of that country; life forms and vegetation types; distribution patterns; botanical exploration and botanical hotspots.



Illustrations were made by Niki A. Goulandris, President of the Goulandris Natural History Museum, which is an important centre for environmental research and education. Most of the species are rare and seldom illustrated.

The illustrations are drawn life size and reproduced on high-quality paper. The book includes some of the plates of the first edition printed in 1968, but has numerous new paintings and revised text. Thus the volume is complete in itself and independent of the original.

The talented drawings of Niki Goulandris bear her characteristic creative style and will be a delight to connoisseurs, admirers and specialists. She has a parallel career in botanical illustration and is a well-known botanical painter, having painted about 800 Greek indigenous plants, many of which have been printed.

Most of the taxa illustrated in the book have been collected from Nature by Constantine N. Goulimis, a lawyer by profession and a dedicated amateur botanist.



The other drawings are based on material gathered by Elli Stamatiadou, the main collector of the Goulandris National History Museum.

Niki Goulandris is a well-known figure not only in Greece and in the Balkans, but also in Europe and the world with her energy and work aimed at protection of the environment and of man-created cultural values.

Together with her husband, A. Goulandris, she co-founded the Goulandris Museum of Natural History in 1964 in order to promote interest in the natural sciences, to enhance public awareness, and to call attention to the need of protecting Greece's natural wildlife habitats and species threatened by extinction.

Apart from her art, she has become a well-known figure in the field of culture. Her messages combine ecological principles with cultural values and she has significantly contributed to Nature conservation, while at the same time promoted man's cultural achievements.

She strongly believes that hope for the future lies in the interplay between biological and cultural processes, which would add new dimensions to the understanding of human situations. From a very early age her life has been dedicated to learning, to generation of new ideas and to scientific thought.

Niki Goulandris has occupied key positions in government and non-government organisations, both on the national and international level. She is a person definitely committed to the public, scientific and cultural life. Her beliefs have been successfully put to practice as reflected in her career and accomplishments.

She served on the Board of the International Development Research Centre, Canada (IDRC) and from 1993–1995 was member of the U.N. World Commission for Culture and Development under Mr. Perez de Cuellar.

Niki Goulandris has received numerous international awards for her work and was the first Greek woman to receive the "Woman of Europe" prize in 1991 from the European Community Commission for her accomplishments in environmental protection in Greece and the Mediterranean. She enjoys international recognition and has received various awards and nominations for her achievements.

For the needs of the Museum, she travels worldwide to visit nature reserves and threatened ecosystems under different cultural conditions in the North and the South. She is invited to lecture in the universities and other institutions, the mass media, women's organizations, etc.

So an excellent atlas-book, with a very good layout and with remarkable illustrations is now in the book market, a work of Niki Goulandris, who according to Prof. Raven, "*is and has been for many years a true leader for human progress and understanding*". The book is of interest both to specialists in the field of botany and to Nature lovers, as well as to connoisseurs of scientific and artistic illustrations.

Congratulating the author of these illustrations personally and on behalf of the Bulgarian botanists for the excellent drawings in this book that will serve future generations, I wish her health and long years of active presence in the scientific and cultural life of Greece and the world.

Milan Chytrý (ed.) 2009.

## Vegetation of the Czech Republic. 2. Ruderal, Weed, Rock and Scree Vegetation.

Academia, Praha. Hardback, 520 pp.

ISBN: 978-80-200-1769-7

(in Czech with English summaries).

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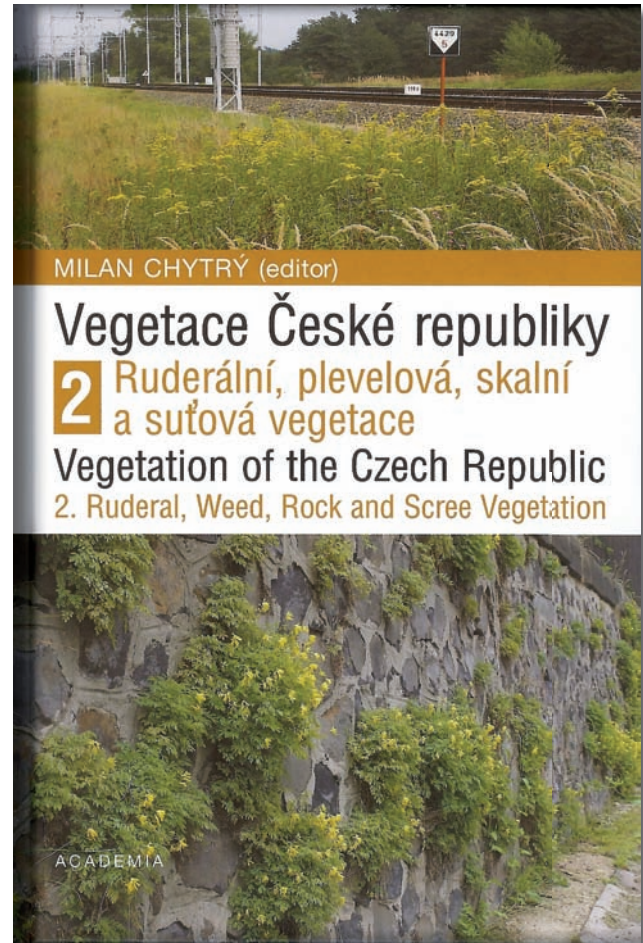
The second volume of the *Vegetation of the Czech Republic* was successfully brought out in 2009 as a result of a revising project of the vegetation of the country. It is devoted to ruderal, weed, rock and scree vegetation. The preparation of this second volume was funded by the Grant Agency and by the Ministry of Education of the Czech Republic. This project was coordinated and implemented at the Department of Botany and Zoology, Masaryk University, Brno. A team of excellent experts working close with Editor Milan Chytrý, in cooperation with the Institute of Botany of the Czech Academy of Sciences have successfully completed the book.

The process of data selection and data analysis followed the methods used in the first volume. Classification at the association level was performed using the Cocktail Method (Bruehlheide 1995, 2000), modified according to Kočí et al. (2003). The advantage of this method was that the associations are defined by unambiguous criteria which allow consistent assignment of any relevé to the particular association. A data set of 82029 relevés has been used.

The content includes the following vegetation types:

The vegetation of trampled habitats (*Polygono arenastri* – *Poëtea annuae*) is dominated mostly by annual species. In the book it is represented by the alliances *Coronopodo-Polygonion arenastri* with four associations and *Saginion procumbentis* with five associations;

The annual vegetation on arable land and ruderal habitats assigned to *Stellarietea mediae* manifested the greatest diversity. It is represented by the alian-



es *Caucalidion*, *Veronico – Euphorbion*, *Scleranthion annui*, *Arnoseridion minimae*, *Oxalidion fontanae*, *Spergulo arvensis – Erodion cicutariae*, *Atriplicion*, *Sisymbriion officinalis*, *Malvion neglectae*, *Salsolion ruthenicae*, and *Eragrostion cilianensi-minoris*). While *Atriplicion* is represented by 13 different associations, *Oxalidion fontanae* and *Spergulo arvensis – Erodion cicutariae* are represented in the country by single weed associations.

Xerophyllous ruderal vegetation with biennial and perennial species (*Artemisietea vulgaris*) is represented by the alliances *Onopordion acanthii*, *Dauco carotae – Melilotion*, *Convolvulo arvensis – Elytrigion repentis*, *Artemisio – Kochion prostratae* and *Arction lappae*. Eleven associations are recognized within *Dauco carotae – Melilotion*. Other alliances include 3–4 associations.

The nitrophyllous perennial vegetation of wet to mesic habitats (*Galio – Urticetea*) includes some natural types as, for example, the ones growing on the fringes of mesic forests, canopy openings, water banks. That is why it includes a larger proportion of

native species than the other types of ruderal vegetation. It is quite diverse in the country, represented by the alliances *Senecionion fluviatilis*, *Petasition hybridi*, *Impatienti noli-tangere* – *Stachyion sylvaticae*, *Geo urbani* – *Alliarion petiolatae*, *Aegopodion podagrariae*, and *Rumicion alpini*. Besides *Rumicion alpini*, which is described by a single association, all other alliances include over three associations. Being widespread and common in the Czech Republic, *Aegopodion podagrariae* has 10 identified associations.

The herbaceous vegetation of forest clearings and disturbed habitats in forest environment is described by *Epilobietea angustifolii*, with its alliance *Fragarion vescae* that includes seven distinct associations.

Vegetation of rocks, walls and stable screes is classified as *Asplenetea trichomanis* and represented by the alliances *Cystopteridion*, *Asplenion cuneifolii*, *Asplenion septentrionalis*, and *Adrosacion alpinae*. This vegetation occupies small areas in the country and thus the included associations are one or two within each alliance.

The nitrophilous vegetation on walls (*Cymbalarion muralis* – *Parietarietea judaicae*) is represented by the *Cymbalarion muralis* – *Asplenion* alliance and two associations.

Vegetation on mobile screes (*Traspietea rotundifolii*) in the Czech Republic is quite rare and is represented in the book by the alliances *Stipion calamagrostis* and *Galeopsion*. Both encompass four associations.

Synonyms, diagnostic and constant species are recorded for the classes, alliances and associations. Detailed information is given about the classes, alliances and associations. Within each class the associations are arranged in synoptic tables. A comparison

of the associations is illustrated with box-plot graphics by means of the Ellenberg indicator values for soil reaction, continentality, light, nutrients, moisture, and temperature. Altitude and herb layer cover are also added. Distribution maps for the associations are drawn using grid cells, approximately of 6×5.5 km. The maps give the potential distribution of some associations, based either on the statistical predictive model which quantified the relationship between the occurrence probability of a particular association and the explanatory environmental variables, or on the occurrence of particular dominant or diagnostic species. The descriptions of the associations follow a unified structure including information about the species composition, habitats, dynamics and management, overall distribution, variability, and significance for nature conservation. An English summary follows each heading, which makes the book readable outside the Czech Republic. Many original photos illustrate the vegetation types.

Although the presented classification is optimized for the Czech Republic, it could be used for comparisons on a broader scale. The information about the anthropogenic vegetation is valuable in the context of study and prevention of alien species' invasion in Europe insofar as it is known that ruderal and weed communities are the most appropriate for such plants.

For the Bulgarian phytosociologists, the *Vegetation of the Czech Republic* is a valuable source of information and a good example of national synthesis. The book could be also used by experts in nature conservation, high nature value farmland management, students, and persons with broad interests in natural history.