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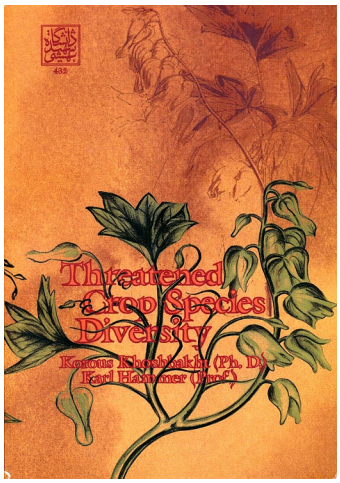
Book review

Korous Khoshbakht & Karl Hammer; 2010

Threatened Crop Species Diversity

Shahid Beheshti University Press, Tehran, xii + 134 pp., 18 tables, 45 figures, ISBN: 964-457-1800



Khoshbakht's and Hammer's book, published in 2010, deals with crop species diversity, an important part of agrobiodiversity research. Extinction, genetic erosion and the reduction of growing areas of many crops have led to today's situation in which less than 30 crop species have to secure the nutrition of the human world population.

The book starts with a six page preface in which the first fundamental question is raised: What happens and will happen to the living by-products of human evolution, the domesticated plants and animals? Furthermore, the six major problems of studying cultivated plants and their decline are presented. Overall the book consists of two main parts. Each starts with an introduction followed by several chapters.

Part 1 encompasses threatened species/red list species among crop plants. The introduction is followed by a comprehensive chapter on extinct crop plants. This chapter comprises aspects of mysterious cases, two case studies of extinct crops (*Anacyclus officinarum* and *Bromus mango*), the wheat cluster, other extinct *Triticum* species, and forgotten crops. The second half of part 1 deals with endangered, vulnerable, rare and indeterminate crops and selected wild relatives of crop plants. It also provides a summary of the families and a discussion of vcrop plants which are extinct in the wild but survive on-farm. Part 1 closes with some aspects of genetic erosion and a final overview and tabular summary. The technical quality of the figures is in some cases limited. Indeed, several figures are reproductions from historical sources with a rather poor quality.

Part 2 tackles threatened species/red list species among ornamental plants. It contains a very clear structure with an introduction followed by five chapters on extinct, endangered, vulnerable, rare and indeterminate ornamental plants. In each chapter a list of species and their families is provided. Totally estimated 7,000 crop plants and 28,000 ornamental plants exist, altogether 4,700 species are threatened using the red list approach. Only the scientific names of the species are listed in the book's index. For readers who are not so familiar with threatened species, details of the plant species on the book cover would have been useful.

About 700 species of threatened cultivated plants (incl. ornamentals) are enumerated in this booklet, ten of which can be classified as definitely extinct.

This book is an important contribution to the field of agrobiodiversity.It contains a bibliography of 23 pages and provides essential knowledge on the extinction and genetic erosion in cultivated plants. Such works are valuable contributions to understanding and hopefully slowing down the current decline in the numbers of crops and their infraspecific diversity.

Jens Gebauer, Kleve