Book Review

Plant conservation in the USSR. This book* is a contribution to the international effort, co-ordinated by the I.U.C.N. (International Union for the Conservation of Nature and natural resources), to catalogue the world's threatened plant species. To produce such a work for the USSR, whose vascular flora was recently estimated to contain about 21,000 species, is a very demanding task; the editors have certainly worked swiftly. There is cause for concern that the book should identify 4,000 native species—nearly one fifth of the entire vascular flora—as needing some degree of protection in the USSR.

The introduction is particularly valuable for the insight it gives into the Soviet Union's planned approach to conservation. Several of the criteria used in selecting species for inclusion anticipate future volumes dealing with smaller geographical areas within the USSR; therefore only plants which are under threat throughout their area within the USSR have been included in this, the 'parent' book. The book is divided into five sections. Following the introduction, the main part deals in alphabetical order of family with the distribution, status, and degree of threat of each species or genus. Lists of species occurring in each of ten geographical subdivisions of the USSR are given in an appendix, followed by a 300-reference bibliography. Distribution maps are given of selected species.

Four status categories are recognised: species are classed as apparently extinct (0), endangered (1), vulnerable (2) or rare (3). A fifth category—indeterminate (4)—has hardly been used. The editors have clearly given greatest emphasis to species which are endemic to the USSR; some non-endemics are included, however, leading to inconsistencies in a few cases where widespread species of SW Asia, e.g. *Gundelia tournefortii*, or the Mediterranean area, e.g. *Pancratium maritimum* and *Erica arborea*, are under threat only in the extremity of their ranges within the USSR.

Other criteria for inclusion have been applied very severely. Regions with especially rich endemic floras, such as Central Asia and the Caucasus, have been more rigorously scrutinised and only a few spectacular examples have been included. Greater emphasis has been given to regions, such as the Arctic, whose floras have a widespread character. Plants of actual or potential economic importance, either as crop or medicinal plants or for their decorative value, have also been given particular attention. Surprisingly only two grass genera—*Triticum* and *Stipa*—and eight other grass species are included. Whole genera have been included for two reasons: either because their useful properties are common to each member of the group, or because taxonomic difficulties exist which might complicate conservation measures directed towards individual species.

Several protective measures which would presumably require legislative support are outlined: creation of permanent reserves in areas of high conservation value; establishing temporary or permanent reserves for preservation and renewal of individual species; placing limits on exploitation of plants of economic value; prohibition of the gathering of wild plants by private individuals (analogous to the recently passed Wild Plants Protection Act in Britain); monitoring of the known populations of wild plants; and the controlled introduction of rare plants into cultivation. The authors also make a plea to professional botanists to give attention to practical ways of organising the protection of species and communities. There, as here, there is a need for botanists to create a climate of opinion which will produce a consensus in favour of such measures. The present book is a timely contribution to this urgent task.

John Edmondson

* Red Book: native plant species to be protected in the USSR. Principal editor: A. Takhtajan. [In Russian.] Nauka publishers, Leningrad section, 1975. 204 pp., 16 pages of plates. R 1.36.