

in Chinese and other herbaria, he was able to re-evaluate the taxonomy of *Primula*. This has resulted in the reduction of 55 species and varieties to synonymy, 10 species have been reinstated, 12 new combinations made and 19 new species, 6 subspecies and 5 varieties described. Some species were transferred from one section to another. It would seem from the above figures that Dr Hu has followed a fairly moderate path in this revision, but without an extensive knowledge of such a large genus it would be presumptuous to comment authoritatively on the actual taxonomic decisions.

As far as this reviewer can find, only three names of species in cultivation have changed and it is hoped that these will soon find their way into the horticultural system. *Primula chionantha* Balf. f. & Forrest is now a synonym of *P. sinopurpurea* Balf. f. ex Mutch., *P. muscarioides* Hemsley is equated with *P. deflexa* Duthie, and *P. burmanica* Balf. f. & Ward with *P. beesiana* Forr. Having examined the species concerned I fully agree with the changes.

One of the purposes of this review has been to draw attention to the ongoing work on this massive Flora, which has so far dealt with about 145 families. A somewhat regrettable feature of this Flora is that although all species are described in Chinese in the main text, only short Latin diagnoses of new taxa are given in the Addenda. Serious students of Primulaceae or any other group of Chinese plants will have to await the English translations which are now under way as part of the Flora of China project based at Missouri. Dr Hu has already started translating the two Primulaceae volumes and it is hoped these will be published in 1993.

L. A. Lauener

Arctic and Alpine Fungi - 3. Beatrice Senn-Irlet, Kolbjorn Mohn Jenssen and Gro Gulden. Soppkonsulenten A/S Oslo. 1990. ISBN 82 991301 2 3.

In this third part of a most welcome ongoing series 25 more species are illustrated in colour and supported by full descriptions of macro- and microscopic characters; line-drawings of the important microscopic characters support the text. Each species is prepared on a separable doublesided page in order to continue the idea of the original authors, viz easy intercalation of descriptions in the way the user decides. The genera covered are: *Hygroclybe* (5 species), all familiar to British agaricologists, although they may not recognize *H. langei* under its correct name *H. persistens*; *Entoloma* (7 species), all known from Britain including *E. catalaunicum*, a truly alpine species, and *Inocybe* and *Hebeloma* (2 species each), taxa which should be looked out for more often in Britain. *Galerina*, *Hydropus*, *Lepiota*, *Rickenella* and *Rhodocybe* are all represented by single species, *Rhodocybe popinalis* being the most widespread in Britain of the five, whilst *Gerronema* and *Hemimycena* are represented by two species each, one of which *G. marchantiae*, adorns the cover of the publication and has only recently been found in Britain. British mycologists will have to become used to *Entoloma* being applied to fungi formerly placed in *Leptonia*, *Nolanea* and *Entoloma* s. str., and although this is becoming a more frequent practice it is not supported by everyone.

A species index to all three volumes, as well as literature citations, which are additions to the first two volumes, are given. A brief preface is all by way of an

introduction and precedes an equally brief but adequate account of the differences between the ecological conditions of arctic and alpine regions and the main vegetational types in the latter. Comments on the genera, exclusive of those already presented in earlier parts of the series, completes the notes accompanying the descriptive part.

Jenssen & Gulden have been joined for this part by Senn-Irlet - an important move because the third author has spent much time studying the alpine agaric flora. All are to be congratulated.

This work is a companion to more than those who venture into the montane areas of Scotland and Wales, or indeed N America and tundra wastes. Recent collecting in the British Lake District indicates that these arctic-alpine agarics are more widespread in Britain and shows that the series is more widely useful than might at first be thought. Several of the species figured are also as common in more lowland sites.

This series will prove its worth in many an agaricologist's library.

Roy Watling

The European Garden Flora; a manual for the identification of plants cultivated in Europe, both out-of-doors and under glass. Volume III, Dicotyledones (Part I), edited by S.M. Walters and others. Cambridge University Press, Cambridge. 1989. xv + 474 pp., 42 illustrations, mostly line drawings. ISBN 0 512 36171 0. £65.

The book follows the same general arrangement as earlier volumes in the series (Vol. I, 1986, vol. II, 1984), and, as described in the introduction, the general aim of the series is to provide a scientifically accurate and up-to-date means for the identification of plants cultivated for amenity in Europe. This is the first of four volumes dealing with the Dicotyledones, and it includes 49 families from Casuarinaceae to Aristolochiaceae.

The largest families dealt with in this volume are the Cactaceae (about 100 pages), Aizoaceae (about 40 pages), and Ranunculaceae (35 pages). It also contains descriptions of many widely-grown trees in Salicaceae, Betulaceae, Fagaceae and Ulmaceae.

In selecting genera and species for inclusion, the editors have relied to a large extent on nursery and garden catalogues, and in general this does give a reasonable reflection of the plants grown in Europe. What it cannot do is to provide quantitative information on the relative abundance of particular species in cultivation, so that the species described may not be those most commonly encountered in collections. The anomaly shows itself in this particular volume, which contains many families of succulent plants grown by amateurs in specialist societies.

Thus in the Aizoaceae, probably the commonest *Aloinopsis* in amateur cultivation is *A. schoonesii*, which many hobbyists grow for its showy red-striped yellow petals, but it is not listed. Similarly, *Astridia dinteri*, the type species, is described, but not *A. hallii*, which has large, glossy white petals, and is probably grown more widely. Undescribed genera in Aizoaceae include some which are assuredly in the collections of many enthusiasts, such as *Carruanthus*, *Mestoklema*, and *Sceletium*; the persistent, papery, skeletonized leaves of the last being such a novelty as to ensure its popularity. It is accepted that such rare and difficult to cultivate genera as *Imitaria* and *Muiria*