

**Flora Reipublicae Popularis Sinicae vol. 59(1), Primulaceae.** F. M. Chen and C. M. Hu. 217 pp., 53 figs. (1989).

**Flora Reipublicae Popularis Sinicae vol. 59(2), Primulaceae.** F. M. Chen and C. M. Hu. 321 pp., 59 figs. (1990).

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About 54 volumes of this long-running Flora have now been published, two of the most recent ones being 59(1) and 59(2) which deal with *Primulaceae*, a family with a particular association with Edinburgh.

Volume 59(1) contains the genera *Lysimachia* (134 species), *Androsace* (71), and *Trientalis*, *Glaux*, *Anagallis*, *Cyclamen*, *Cortusa* and *Stimpsonia* (one species each). Handel-Mazzetti's treatment of *Lysimachia* has undergone some significant changes, especially concerning the transfer of sections to different subgenera and resulting in clearer circumscriptions of the subgenera. Volume 59(2) contains *Primula* (294 species), *Omphalogramma* (9) and *Bryocarpum*, *Pomatosace* and *Samolus* (one species each).

Both volumes have been edited by Professor Chen Fenghui and Dr Hu Chiming of the South China Botanical Institute in Guangzhou. The former spent some three years in the 1930s working with Sir William Wright Smith on the genus *Primula* while Dr Hu studied the same genus at Edinburgh from 1981–1983. In view of Edinburgh's previous taxonomic and horticultural interest in *Primula*, and its importance and popularity in cultivation, it seems worthwhile to examine any changes in this latest account of the Chinese species.

After Pax monographed *Primula* in 1905 the accumulation of collections, particularly those of George Forrest, necessitated substantial new work on the genus. Professor Bayley Balfour described many new species and in 1928 Sir William Wright Smith and Forrest published their paper entitled 'The Sections of *Primula*', accounting for 32 sections. Many years later Wright Smith was joined by Harold Fletcher and between 1941 and 1948 they published a complete monograph of the sections. In 1961, Professor Per Wendelbo proposed major changes to the classification in which he enumerated seven subgenera and 33 sections.

On the whole, Hu has followed Smith and Fletcher, not employing any subgeneric categories but incorporating the sectional name changes necessary in accordance with the International Code of Botanical Nomenclature. He has encompassed the 294 Chinese species of *Primula* within 24 sections, of which only one is new, sect. *Ranunculoides*, containing two species, *P. cicutariifolia* Pax and *P. merrilliana* Schltr.

As with Forrest, Hu had the advantage of seeing *Primulas* in the wild on his several expeditions to W Sichuan. During the course of his observations in the wild, he became aware that white-flowered individuals which often occur in species with pink or purple flowers were only sporadic albinos and accordingly he has reduced all varieties characterized only by white flowers. Hu also rediscovered some very rare species hitherto known only from the type. Having finally examined all the material

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.

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**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: *Hygrocybe* (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