

## BOOK REVIEW

**The Flora of China.** Striking evidence of Chinese taxonomic activity is shown by the recent appearance of several parts not only of the all-embracing main Flora of China but also of such regional Floras as those of Hainan, Qin Ling (Tsinling), Hubei (Hupeh), Yunnan and NE China. The first volume of *Flora Reipublicae Popularis Sinicae* (Pteridophyta) appeared as early as 1959, followed by volumes devoted mainly to *Pedicularis* (1963) and to part of *Rosaceae* (1974), but the last two years have seen the appearance of *Apocynaceae* & *Asclepiadaceae*, *Liliaceae*, *Gymnospermae* and two volumes on the *Labiatae*\*.

Undertaking a Flora which, when completed, will run to 80 volumes and deal with c. 30,000 species is a Herculean task requiring great resources of taxonomic expertise, adequate financial support and firm determination to keep the project moving steadily. Needless to say, its contents are bound to be of major importance and interest not only to the Chinese but also to the international botanical and horticultural community.

The *Labiatae* volumes deal with 99 genera and 812 species in c. 1150 pages, exclusive of indexes; the largest genera are *Scutellaria* with 102 species, *Rabdosia* 90, *Salvia* 78, and *Phlomis* 43. Both volumes are edited by Wu Cheng-yih and Li Hsi-wen from the Yunnan Botanical Institute, Kunming. The account of each species contains, in addition to its description, full synonymy, flowering times, internal distribution by province (sometimes exact localities), habitats, altitude, and notes on any economic uses; exact type citations and external ranges are not given, nor, a more serious omission, are any general comments on the species, its affinities or taxonomic problems. Commonly cultivated or naturalized species are also incorporated in the text, but not clearly distinguished from native ones by, for example, different typography. For several species, far too much space is taken up with old synonyms and superfluous references. In a few instances, e.g. *Pogostemon chinensis*, the reference to the place of publication (*Flora Yunnanica*) is unfortunately given in Chinese and, for most readers, such references will remain obscure till the *Kew Record* catches up.

The format of the Flora is clearly modelled on Komarov's *Flora URSS* (1934-1960) in almost all respects and for those who regularly use that Flora there is, despite the language difference, very much a feeling of *déjà vu* when handling the Chinese one. Other than the Latin name of the species, pertinent references to it and its synonyms, and the illustrations, there is very little for the non-Chinese reader to get his teeth into, let alone digest. It is likely, therefore, that as with *Flora URSS* there will eventually have to be a series of translations into English. Even such a small concession as slipping in the internal distributions in English would add to the overall value of the Flora.

As in format, the generic and species concepts accepted in *Flora Sinicae* parallel those of *Flora URSS*. A very narrow Komarovian approach is adopted. *Cardioteucriis*, *Rubiteucriis* and *Kinostemon* are recognized as generically distinct from *Teucrium*; *Schizonepeta* from *Nepeta*; *Suzukia* from *Glechoma*; *Fedtschenkiella* from *Dracocephalum*. Subgeneric rank at most, would be more appropriate in several of these instances. Likewise at species level, 'splitting' is the order of the day and in the eleven species of *Clinopodium*, the widespread and polymorphic *C. vulgare* and *C. umbrosum* complexes are divided into more than six species; and the five species of *Meehania* are probably merely expressions of the variable *M. urticifolia*. The number of new species and varieties described (no sub-specific category is recognized) is also high. In *Rabdosia*, (part of *Plectranthus* s.l.) 30 species out of 90 bear the names, singly or jointly, of C.Y. Wu & H.W. Li as authors; about 20 of these new species are described in the Flora, as are eight new series. In *Salvia*, with 78 species, (Stibral in her 1935 revision of the genus in China and Burma dealt with 42) there are 11 new or recently described species. It is difficult to assess the merits of these new species, but in those complexes of which we have some knowledge many seem to be based on very slender reasons. In, for instance, the extremely polymorphic *S. japonica*, the new species *S. weihaiensis* C.Y. Wu & H.W. Li is described as 'Species *S. japonicae* affinis sed foliis simplicibus oblongis margine irregulariter undulato-crenatis, calycibus

\* *Flora Reipublicae Popularis Sinicae*. Vol. 65(2), *Labiatae* 1, C.Y. Wu & H.W. Li (1977), 649 pp., 111 figs., £6.70, and Vol. 66, *Labiatae* 2, C.Y. Wu & H.W. Li (1977), 647 pp., 123 figs., £6.60. In Chinese. Institutum Botanicum Provinciae Yunnanicae, Institutum Botanicum Pekinense Academiae Sinicae, Collegium Pharmaceuticum Nankingense. Available in Britain from Guanghai Company, 9 Newport Place, London, W.C.2.

et corollis intus nudis differt'. That is the entire description! All in all, there are c. 200 new or recently described species in the two volumes, i.e. about 24% of the total number of species, and many new combinations at varietal and specific rank. In addition to the brief and often unconvincing diagnostic descriptions of the new taxa there is another criticism which must be stressed—the citation of details of the types in Chinese only. Although this practice does not contravene the *International Code of Nomenclature*, it certainly is a major stumbling block for most foreign botanists wishing to know the type locality or to cite it. The individualistic use of herbarium symbols is a further point of criticism; for instance, HL is adopted as a new symbol (for Lushan) when it is already occupied, HP (instead of PE) is cited throughout as the symbol for Academia Sinica, Beijing (Peking), and one hopes that a run through *Index Herbariorum* will precede future choice.

The species keys in these two volumes are of the indented type and we were able to have that of *Salvia* translated. We tested its efficacy using the substantial range of Chinese material at Edinburgh, representative of more than 100 collectors including such as Henry, Forrest, Rock, Fang and Yu, and the French missionary collections in the Lévillé herbarium. In many respects, such as incomplete and uncontrasting couplets, excessive stress on flower colour and overlapping measurements, the key was rather unsatisfactory. Even using correctly named specimens it was sometimes difficult to arrive at the same answer. Keys, of course, tend to throw into clear perspective the distinctness, or otherwise, of the taxa involved and in this case it emphasised the undoubted complexity of the genus and the ill-defined nature of many constituent species.

Above the species level, there is a plethora of series, subsections, sections and subgenera in the larger genera, and a considerable number of them are described as new.

A fair number of line drawings, both of habit and individual parts, complement the text, and many species are illustrated for the first time. In general, the habit drawings are of a higher standard than the often botanically inadequate insets; neither, however, give any indication of scale.

It remains to be seen whether future volumes will follow the same narrow approach to the recognition of taxa as is so apparent in these two. Flora writers almost inevitably take a narrower and more parochial view of their taxonomic problems than a monographer. But one of the duties of the Flora writer is to remember that his is never, or rarely, the last word and that he should try not to burden his successors with extra work by creating unnecessary taxa. In this respect, it is difficult to avoid the conclusion that, although a great achievement, the Labiatae volumes could have been better. One is compelled to infer that the type specimens of a large number of species were unavailable for consultation, resulting in some taxonomic errors. Certainly some relevant references were neglected or unknown, and the overall impression is that there was a greater desire to create new taxa than to reduce superfluous old names to synonymy.

No overall chief editor for the Flora after 1963 has been indicated and with separate Institutes at Beijing (Peking), Yunnan, Nanjing (Nanking) and Guandong (Kwangtung) involved in the volumes already published, an unevenness of taxonomic treatment is apparent which a firmer central editorial policy would at least have improved. It is difficult to make major changes in the structure of a Flora when some volumes have already appeared, but a more conservative approach to taxonomic problems and greater use of internationally available knowledge and specimens would help to make future volumes what they should be—"monumental" contributions to our knowledge of the plants of eastern Asia and a tribute to the accuracy and industry of Chinese taxonomists.

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