Floristic Work in South-West Asia: collective reviews.

In 1867, the first volume of Edmond Boissier's Flora Orientalis was published. Seventeen years later in 1884, very shortly before Boissier died, the last of the five volumes appeared. The importance of this work, together with its supplement, in laying a solid framework for further work on the flora of south-west Asia cannot be over-emphasised. It is probably no exaggeration to say that the healthy state of taxonomic progress in this area today largely stems from Boissier's great achievement. A century after the appearance of the first volume, at a time when Flora Orientalis is gradually being replaced as the only standard reference work by individual Floras of the countries within its wide scope, several major works have been published. Five of these are reviewed separately below but before coming to these, a few general comparative remarks may be made on them and other Floras in the same area currently being produced.

Within the area of Flora Orientalis, there are now, either in the course of preparation or in a few cases completed, Floras of the Aegaean, Egypt, Cyprus, Iraq, Palestine, Lebanon and Syria, Turkey, Caucasus, Azerbaidjan, Armenia and Georgia; there is Flora Europaea and Flora Iranica and a few local Floras such as those of Tiflis, Erevan and Ashkabad. Some of them are merely guides to naming plants, such as Täckholm's Student Flora of Egypt and Nikitin's useful Flora of the Ashkabad region. Others are academic taxonomic works which involve a great deal of original work.

Few of the major Floras mentioned above have been completed and it is therefore difficult to make overall comparisons at this stage. But in general where it is possible to compare accounts, the variation in taxonomic treatment varies less than might be expected. Soviet taxonomists certainly take a narrower view of species and genera than do most western botanists and as a result many of the taxa they recognise as species would elsewhere be regarded as subspecies (a category they do not recognise) or varieties but in some cases what seems to be unnatural fragmentation of a species may in fact be a result of a species behaving differently in different parts of its range: an Irano-Turanian steppe species in Anatolia may be fairly constant in its characters there but may exhibit a much greater degree of variability in different habitats in Caucasia.

The sequence of families varies greatly from one Flora to another. The Soviet Floras, adopting the Englerian system, follow each other fairly closely in this respect but among the others mentioned above, one follows the sequence of the recent edition of the Pflanzenfamilien Syllabus, another an older edition of the same work; the Flora of Iraq is arranged by the Hutchinson system and the Flora of Turkey follows a modified version of Boissier's Flora Orientalis sequence. Flora Iranica follows no set sequence and family accounts are published as separate parts whenever they are ready.

Although there have been tremendous strides forward in our knowledge of this species-rich part of the world, much remains to be done in the spheres of exploration, field observations and correlation. The western parts of the region are fairly well known now and although there are undoubtedly many new species to be found and much to be learned about species variation and distribution, the available collections are extensive enough to enable fairly comprehensive Floras to be written. At the other end of the area,

particularly in Afghanistan and Persia, the story is rather different. Many of the earlier published parts of Flora Iranica, of which almost fifty, mostly small, families have now appeared, have already been quite seriously outdated by recent collections and the preparation of accounts for this ambitious floristic work is often much hampered by lack of adequate material. The other problem, of correlation, is more difficult to overcome. There are obvious inherent dangers in writing Floras of political as opposed to natural areas and although most authors try to correlate their own work with that of others, the difficulties involved in preparing satisfactory taxonomic accounts of very large genera, such as *Astragalus* or *Cousinia*, are overwhelming. How many, for instance, of the huge numbers of *Cousinia* species from Persia and Afghanistan supposedly endemic to these areas are really different from Soviet central Asiatic species? The problem is particularly acute in genera that are well represented throughout Europe, south-west and central Asia. *Onobrychis*, currently being studied for Flora of Turkey, is a case in point; the wide-ranging species complexes of this most difficult genus are extremely difficult for a taxonomist to understand without undertaking a monographic revision. And as most Floras have to adhere to a fairly strict timetable, within a tight budget, such revisions are quite impossible.

Boissier completed his monumental, more or less one-man-Flora in seventeen years. At the current rate of progress, all the Floras currently being written will be finished before the centenary, in 1984, of the appearance of its last volume. It is to be hoped that several supplements to the current Floras will have been published by then and that emphasis will have swung away from Flora writing towards the preparation of comprehensive monographic revisions.

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FLORA OF TURKEY VOL. 2*

Before going into details about the second volume of P. H. Davis' Flora of Turkey, I want to make a few general remarks on the work as a whole. When I was asked to review this volume I decided after some hesitation to agree, in spite of many other urgent commitments, because, in many cases, major publications are being reviewed by persons not familiar with the preparation of works of comparable type and size. Being myself involved in a similar task, my standpoint might be different—more indulgent in details and more critical in general questions of taxonomical treatment.

The two volumes published so far are definitely examples of the best tradition in British book production. They are solidly bound, clearly printed on excellent paper and the text is easy to survey. The keys are clear and the descriptions concise and diagnostic rather than descriptive. There are 16 excellent whole page figures and 68 maps; in this point the request of a reviewer of volume I to increase the number of figures at the expense of some of the less informative maps has not been complied with. One of the possible points of disagreement is the grid system adopted for the quotation of localities. It took me some time to get accustomed to it because I associate

* Flora of Turkey and the East Aegean Islands. Volume 2. Edited by P. H. Davis, D.Sc., assisted by J. Cullen, Ph.D., and M. J. E. Coode, B.A. The University Press, Edinburgh 1966. 581 pp. Price £9.9.0.