Book Review

Chorology of C European plants. *Chorologie II** comes in two sturdy, well-bound parts weighing in at 9 lbs. The first part, the text, has three main sections. Firstly, there are short phytogeographical discussions of the c. 50 families dealt with, from Oxalidaceae through, more or less in Englerian sequence, to Labiatae and Plantaginaceae. This is followed by the "Arealdiagnosen" and "Florenelementen" of the individual species. The area diagnosis, for example, of the widespread *Marrubium vulgare* is given as "boreostrop-Arab-m-temp ($k_{(1)-3}$) Eur- W As [borealsubtropical, Arabian, meridional, temperate, continental, European, W Asiatic]; and its floral element as "med- submed- turcest (aralo-casp)-pont-swsarm [SW sarmatic]-ze [C Europe]-atl". The last of the three sections is an expanded legend for the maps of the second part, giving in readily comparable form details of taxonomy, chorology, altitudinal ranges and references to other distribution maps. The maps, c. 650 in all, cover 1700 species, not only European, but many related non-European ones. All are of the rather small size of 132 × 93 mm; some have only one species, others have up to 22 on the same map. This brief synopsis of its contents shows that *Chorologie* is much more than merely an information source about central European plants.

For most botanists and biologists the maps will probably be the most frequently referred to part of the work—at least for those not fluent in German. They certainly give a very clear picture of the distributions of plants in Europe, but inevitably as one moves further away from this well-known part of the world their inaccuracies increase—showing just how small is our knowledge of the overall distributions of probably most plants. Many taxonomists will certainly find errors in groups of which they have specialist knowledge: for instance, *Rhododendron ponticum* is not shown for S Turkey (Amanus), *Salvia pratensis* does not grow in European Turkey, *Lavandula* is much more widespread in Arabia than indicated, *Daphne laureola* is present in the Azores. The size, and often scale, of the maps is so small that it is often difficult to see clearly the distributions. This is especially true of those maps which have more than 5 or 6 species on them; and squeezing 22 species on to such a small format is impossible. Even lynx-eyed young botanists would be hard-pressed to decipher many of the symbols without a strong reading glass. Despite these criticisms there is nevertheless a tremendous amount of information on the maps which is either unavailable elsewhere or would require a lot of scrabbling about in the literature to find. For this reason alone *Chorologie* should be on the bookshelves of all major botanical libraries.

But the maps are only about a third of the total work. The textual sections for those of us who have not been brought up on Meusel's nomenclature of chorological types, floral regions and provinces take us into unfamiliar territory and are often difficult to follow. Whether there is more reality to his categories than those of other phytogeographers who draw lines on world maps or define floristic, climatic or vegetational zones is probably a matter of opinion. Personally, I find, at least for very widespread species as opposed to locally distributed ones, that his "Arealdiagnosen" and "Florenelementen" are complex in conception and usage and because of that the living plant gets lost in its nomenclature—as for example in the case of the *Marrubium* cited above. Equally, of course, it can be argued that this complexity reflects the fact that the same species often behaves differently in different parts of its overall range.

As far as usage as a reference work goes, it is not easy to find your way around *Chorologie II* quickly; there is no terminal index of any kind and with the maps widely separated from the other sources of information about the taxa, it is a frustrating business tracing your plant. There is also no bibliography to the numerous references given in the text. Both these, index and bibliography, will appear when the final third volume is published. So for several reasons the completion of this Sisyphus-like task will be a most welcome event; not least for Professor Meusel and his dedicated collaborators at Halle Wittenberg.

It is difficult, at this stage, to assess the contribution that the *Chorologie* volumes make to botanical knowledge. We must wait till the work is finished; and hopefully then be able to digest a synoptic synthesis of the mine of information accumulated in the course of more than thirty years' work. However, although the underlying aims of the project are admirable it is difficult not to suspect that initially the author set himself an impossible task. The canvas was, and is, too large for existing knowledge. I. C. Hedge

* *Vergleichende Chorologie der zentral europaischen Flora.* H. Meusel. Band 2. Text volume and Map volume: 588 pp, 656 distribution maps. 34 × 30 cm. V.E.B. Gustav Fischer, Jena, 1978. M. 310.