

Preface

For over 60 years I have worked in the Herbarium at Cambridge University on the British and European floras. I have collected about 30,000 numbers consisting of some 50,000 specimens from most parts of the British Isles and made many visits to Continental Europe. Particular attention has been given to most critical genera: *Betula*, *Cerastium*, *Chenopodium*, *Conyza*, *Crepis*, *Dactylorhiza*, *Euphrasia*, *Fumaria*, *Hieracium*, *Limonium*, *Pilosella*, *Prunus*, *Rhinanthus*, *Salicornia*, *Salix*, *Scleranthus*, *Sorbus* and *Ulmus*; and in helping friends in various ways I have considered the taxonomy of *Alchemilla*, *Batrachian*, *Ranunculi*, *Potamogeton*, *Rubus* and *Taraxacum*. I have also spent much time studying ecotypic and geographical variation, in particular a comparison of those variants which occur on the coasts in dunes, shingle and salt-marsh with those growing as arable weeds, and those in mountains. Special attention has also been given to trees and shrubs.

It has long been my wish to publish this information in a critical flora of Great Britain and Ireland. In the 1970s a group of us tried to get a grant to carry this out, but we were unsuccessful. Clive Stace then started work on his *New Flora of the British Isles*, which was first published in 1991, with a second edition in 1997. In it he gives only abbreviated descriptions and omits most of the species in the large apomictic genera and many of the infraspecific variants. Numerous introduced species are included by Stace in a British and Irish flora for the first time, detailed descriptions and specimens of many of which are difficult to find. Stace's flora is to my mind an excellent field guide, which it would be difficult to better, but it does not give the detailed descriptions that are needed to confirm the identification of a plant which is new to you. A good description in my opinion is one in which a picture of the plant unfolds before you as you read it.

I considered it was possible for me to write a flora in five volumes which gave a full description of all the species in Stace's flora and to add all the apomicts and many of the infraspecific variants, but it was too large a task to attempt to include all the biological information envisaged by the group in the 1970s. It was necessary, however, to have the help of another author, who lived in Cambridge,

to deal with the large amount of work involved. My eye fell upon Gina Murrell who had worked with me in the 1960s and 1970s, when writing accounts for *Flora Europaea*, *Flora of Turkey* and *Flora of the Maltese Islands*. The work of one had complemented the work of the other and we were able to criticise one another without antagonism. We started field work on this flora on 13 May 1987, by describing *Ceratocarpus claviculata*, which was flowering on Dunwich Heath in Suffolk, in a snowstorm. Since then we have as far as possible spent one day a week working in the field or at the Botanic Garden, Cambridge. We started writing Volume 5 in 1992, and completed it by Easter 1994. It was published on 1 April 1997, not 1996 as stated in the volume itself. Volume 4 was published on 1 April 2006.

I have done most of the writing and made the taxonomic and nomenclatural decisions, while Gina has done most of the measuring, sometimes sitting at the microscope dictating the description while I, surrounded by a pile of books, wrote it down, and she has set out and put the whole onto a computer. Gina has also done all the illustrations and organised our field work. Volume 4, probably the largest of the five, took longer than we thought due to my moving house and retiring and having to vacate my room in the Department of Plant Sciences in which I had accumulated much over 50 years. Major alterations to the whole Department have added to the difficulties. Volume 5 contained 28 families, 233 genera, 769 species, 93 subspecies, 148 varieties, 22 formae and 182 hybrids. Volume 4 contained an introduction and full accounts of 7 families, 146 genera, 1098 species, 130 subspecies, 162 varieties, 27 formae and 51 hybrids. It dealt with a whole range of taxa from very variable species which we felt could not be further divided, to species with geographical races, ecotypes, forms and cultivars. The taxa were outbreeding, inbreeding, apomictic or spreading vegetatively.

This volume does not contain any large apomict genera but does include the difficult genera of *Euphrasia* and *Mentha* in its 59 families, 299 genera, 996 species, 187 subspecies, 308 varieties and 102 formae and 235 hybrids.

Peter Sell