

The book is attractively produced, and in view of its convenient pocket size and modest price it can be warmly recommended as a vade-mecum or bedside book for the botanically minded tourist with an intelligent interest in the ancient Greek world. There is a scattering of misprints which ought to be corrected in a later edition, and the illustration of *Platanthera chlorantha* (463) is printed upside down.

L.D.J. Henderson

**A Taxonomic Revision of *Lamium* (Lamiaceae).** [Leiden Botanical Series, 11]. J. Mennema. Leiden University Press. 1989. Pp. vii + 198; 70 figures, 3 tables. ISBN 90-04-09109-2. Dutch Guilders 92.

This is the first revision of the genus *Lamium* since Briquet (1897). Long in gestation, it clearly represents the fruits of many years' painstaking work and is based on examination of c. 10000 collections; of these, quantitative measurements were made on 2700. The resulting slim volume is divided into three parts. The "General chapter" first outlines the taxonomic history of *Lamium* (a cameo of the history of European plant taxonomy). The author accepts the traditional concept of *Lamium* followed by most authors, including Briquet. Various extra-European species, e.g. *L. nepalense* Hedge, *L. staintonii* Hedge, *L. tuberosum* Hedge and *L. foliatum* Dunn, are excluded. Some consideration of genera peripheral to *Lamium* might have allowed the author to assign these to their correct genus, assuming he is right in excluding them from *Lamium*.

Brief notes (too brief, in many instances) are given on the value of various taxonomic characters. Indumentum characters, and the presence or absence of an annulus (internal ring of hairs) in the corolla tube, are given less weight than by most authors. Notes on geography, the criteria for delimiting taxa, and hybridisation follow. Only one hybrid, *L. x holsaticum* (*L. album* x *maculatum*) is accepted.

The final part of the introductory chapter is by far the most controversial. Its heading, "An Intuitive Phylogenetic Reconstruction", will raise more than the eyebrows of those who practise cladistics! Mennema starts from "the axiom that species with a large, disjunct area are older than species with a small continuous area", to construct a branching diagram or 'phylogenetic tree'. Rigid adherence to his maxim (which bears some relationship to Willis's 'Age and Area Hypothesis') results in some extremely odd conclusions. Perennial species are said to be derived from annuals (e.g. *L. album* from *L. galactophyllum*). Species of ancient habitats (e.g. *L. orvala* of mesic forests) are considered to have been derived from those inhabiting rocky places and (historically recent) ruderal habitats. All the conclusions in this section are the reverse of those which would have been deduced using generally accepted theories of evolutionary trends, and I find it exceedingly difficult to believe any of them.

The taxonomic chapter, 114 pages long, forms the core of the revision. The genus is treated in a broad sense, including *Galeobdolon*, even though a combination of characters (discussed by Mennema), have influenced other workers to recognise the latter as a distinct genus.

Three subgenera are recognised: Subgen. *Galeobdolon* (*L. galeobdolon*, *L. flexuosum*), Subgen. *Orvala* (*L. orvala*) and Subgen. *Lamium* (all other species). Subgen. *Lamium*, the central subgenus in Mennema's scheme, is divided into three sections: Sect. *Amplexicaule* Mennema (new: 3 species), Sect. *Lamiotypus* (5 species) and Sect. *Lamium* (5 species). The total number of species recognised world-wide is only 16, divided into 33 taxa.

Every species (but not every subspecies or variety) recognised by Mennema is also treated in either the account of *Lamium* for *Flora Europaea* (Ball, 1972) or in my treatment of the genus for *Flora of Turkey* (Mill, 1982). A comparison between Mennema's revision and these two accounts is interesting. The taxa from Europe and Turkey together account for well over 90% of the diversity within the genus, and the total for these areas treated in the two above accounts is 54 taxa representing 34 species. Thus, it is evident that Mennema's treatment is not simply broad, but sweeping; the number of accepted species having been cut to about half.

This drastic pruning does little to clarify the taxonomy, particularly in critical groups. The worst of these is undoubtedly the *L. garganicum* complex which is notorious for its variability but within which, nevertheless, various geographically localised, more or less clear-cut taxa can be defined. However, Mennema sinks many of these e.g. *L. cymbalariifolium*, *L. microphyllum* and *L. sandrasicum* are all combined under the variety *L. garganicum* subsp. *striatum* var. *microphyllum*. A further five species and six subspecies are amalgamated under another variety (var. *striatum*) of the same subspecies, which thereby becomes far more heterogeneous than many species. Even more difficult to accept is the submergence of the relict species *L. gundelshheimeri* within a broad *L. maculatum* which also includes *L. truncatum*. The reduction of *L. crinitum* to a subspecies of *L. album* is less controversial. Synonymies are, for many species, not unexpectedly very lengthy.

All accepted species and most synonyms have been typified wherever possible. There are curious discrepancies between some of these typifications and the equivalents in my own works (Mill, 1980 and 1982). Some are minor; indeed, some correct my own work (e.g. the holotype of *L. rhodium* is at Lyon and not Paris). However, my lectotypification of *L. striatum* var. *nepetifolium* by Kotschy 17 (Mill, 1980) seems to have been ignored; Mennema selected the same specimen, but his lectotypification is invalid. The holotype of my own *L. sulfureum* Hausskn. & Sint. ex R. Mill is stated to be the Lund specimen, although I expressly designated the Jena specimen as holotype. For *L. crinitum*, Mennema states that the holotype is an unnumbered Montbret specimen; the two syntypes are in fact *Montbret & Aucher* 2246 and *Aucher* 1684. However, lectotypes have usefully been chosen for several names which I typified by the original syntypes.

The book is generously illustrated with 70 figures. Of these, however, only 22 are illustrations of plants (either photographs or line drawings). I would have liked to have seen more taxa illustrated. The photographs of herbarium sheets are sometimes slightly out of focus. The line drawings, by P. L. J. Schoenmaker, are mostly of excellent quality; however, I found the one of *L. garganicum* subsp. *garganicum* var. *microphyllum*

unconvincing – the stems are never erect as shown and are in fact normally procumbent over rocks.

Every taxon is mapped, though the maps sometimes give a very incomplete picture of the range of a species. One of the most glaringly obvious is the map of *L. purpureum* subsp. *purpureum* of which there are only *seven* records from the whole of the British Isles, and *none* from Scotland! The same taxon is stated on p. 130 to be absent from Crete, but there is a dot on W Crete on the facing page. The map of *L. moschatum* (Fig. 39) has no symbols anywhere in NE Anatolia, even though *L. ponticum* (described from Rize) is listed in its synonymy. The disjunct distribution of *L. album* subsp. *crinitum* as circumscribed by Mennema (Turkey to Zagros mts.; Nepal and Himalaya) presumably results from Mennema's submergence of the Himalayan *L. petiolatum* Royle within his expanded concept of '*crinitum*'.

An innovative feature is the extensive use of graphs (166 in all, on 19 Figures) to portray the variation in quantitative characters. One striking feature that emerges from a perusal of these is the fact that, for almost every species, calyx length is far less variable, and presumably therefore more reliable, than the other quantitative characters so analysed. Annual species, interestingly, show even more constancy in this character than do the perennials. Strangely, there is no discussion of this anywhere in the text. Indeed, the whole treatment of the statistical variation is very superficial, lacking detailed discussions of the variation or of the value of the characters.

The work concludes with a listing of collections seen. Although 52 pages long, this is not exhaustive for the most frequently collected species. There are some obvious printing (or deciphering?) errors, e.g. "Davis and Dodge" on p. 168, is a curious hybrid; the second collector must be either Dodds, or Hedge – but which? The Whittall specimen of *L. garganicum* subsp. *garganicum* var. *microphyllum*, an exclusively high-alpine taxon, cannot have been collected from Izmir. *Baytop* specimens should be cited by their institute accession numbers, e.g. *Baytop* (ISTE 4718), not *Baytop* 4718 as on p. 177. Gulmarg in Pakistan appears on p. 163 as both 'Gulwang' and 'Guhnarg'. "Gruhwal" is in reality Garhwal. Chumbi is listed under mainland India, instead of Tibet. Chinese localities are in Wade-Giles transliteration, not Pinyin. Orkney is treated as if it were a separate country from Scotland on pp. 173 and 182 (it once was, but even the long gestation of Mennema's revision did not extend that far back!).

Sadly, this cannot be considered the last word on *Lamium*. A tremendous amount of effort has obviously gone into Mennema's labours. But so much is lacking; there are so many lost opportunities. Seed morphology is barely touched on; there are no original cytological studies; pollen is dismissed in a single sentence. Pollen colour is recorded only for 7 common species although it is easily observable in the herbarium. In fact, there is no evidence that the author ever did any field work outside the Netherlands; the study seems to have been based almost entirely on herbarium work. Much of the time spent on compiling the graphs could perhaps have been spent doing numerical and phylogenetic analyses to create a more acceptable phylogenetic tree. Resolution of the fascinating taxonomic problems within *Lamium* must, therefore, await another mono-

grapher or research team, especially one willing to look at the plants in their native surroundings.

## REFERENCES

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R. R. Mill

**List of Vascular Plants of the British Isles.** D.H. Kent. London: Botanical Society of the British Isles. 1992. Pp. xvi + 384. ISBN 0-90115-821-6. £11.50.

The 'Kent List' follows in the long tradition of numbered plant lists which British botanists have been privileged to use since the *London Catalogue of British Plants* first appeared in 1844. It replaces Dandy's list of 1958. Like its predecessors, 'Kent' is simply a numbered list giving the correct scientific name of every plant on the current British list, with appropriate synonyms including the basionym in all relevant cases – but nothing else. Common names are *not* included; a sad omission since they would have taken up little extra space. Also useful, but sadly lacking, would have been an indication of the conservation status of our rarer plants.

Some comparisons with its predecessor (Dandy, 1958) prove illuminating. 'Kent' lists more species (3354) than 'Dandy' (2822), but much of the extra bulk of the former consists simply of empty white space. The net increase of 532 species on 'Dandy' is made up of an extra 118 native and 414 aliens. The former are more than accounted for by the fact that, in 'Kent', all 220 microspecies of *Taraxacum* are listed, whereas 'Dandy' only enumerated four species aggregates. There are also numerous additions in *Limonium* and *Hieracium*. However, they are compensated for by a marked decrease in accepted *Rubus* taxa, from Dandy's 389 to a 'mere' 321. The Introduction includes a helpful list of species included in 'Dandy' but excluded in 'Kent', comprising 9 natives, 74 aliens and casuals, and 9 hybrids.

The family sequence, generic concepts, and nomenclature have all been brought up to date. The arrangement of families follows Cronquist (1981), also used in Stace's *New Flora* (Stace 1991). Although it was intended that the two books be compatible, the family numbering diverges slightly, since Kent excludes various families included by Stace. Both books take a conservative view of Liliaceae.

This is the first BSBI publication to have been produced using the Society's database, at Leicester. It is a pity that the book could not have been made more user-friendly by