

S. Talavera, C. Aedo, S. Castroviejo, C. Romero Zarco, L. Sáez, F. J. Salguero & M. Velayos (Volume Eds). *Flora Iberica Plantas Vasculares de la Península Ibérica e Islas Baleares. Vol. VII (I). Leguminosae*. Pp. XLV + 578, front endpaper and p. xxv maps, 130 line drawings, 7 figures. Spain: Real Jardín Botánico, CSIC Madrid, 1999. Price not stated. ISBN 84 00 07821 7 (hardback with dust jacket).

This is a firmly bound, scholarly work packed with dichotomous keys, detailed descriptions and beautiful illustrations, and dedicated entirely to the family *Leguminosae*. It is refreshing to see a Flora written in the native language of the area which it covers and very largely by local specialists. In total, 15 authors have contributed to the 36 genera dealt with in this volume. Exactly half of these are authored solely (13 genera, including the species-rich *Cytisus* and *Genista*) or in part (5 genera) by S. Talavera of Sevilla. In all, 271 species are covered by this work and, not surprisingly for a plant family so rich in the Iberian Peninsula, we must await Volume 7 part 2 for the rest of the family (mainly tribes *Hedysareae*, *Loteae* and *Trifolieae*).

The 130 beautiful line drawings are from the pens of five different artists. The individual styles differ somewhat but this does not spoil the overall result. By far the greatest number (86) of the illustrations are by the talented Rodrigo Tavera; a change in his style can be witnessed from the simpler technique used in 1996 to the more detailed results produced in 1998. Twenty two plates are by Antonio Jordán (spelt 'Jardán' in the 'préambulo' although the signature appears consistent), 11 by Juan L. Castillo, 8 by José M. Pizarro (all in genus *Ulex*) and three species of *Adenocarpus* are by the English artist Margaret Tebbs. In addition to the plates, 7 diagnostic figures supplement some of the keys and help the reader to understand the subtle differences between closely related species.

Subfamilies *Caesalpinioideae* and *Mimosoideae* are both dealt with in this volume but together occupy little space. There are no native species of *Mimosoideae* in the Iberian Peninsula; the Flora deals with 14 species of introduced *Acacia* and briefly comments on the ornamental status of *Albizia julibrissin* and *Albizia procera* in some parks and gardens. In the *Caesalpinioideae* two genera, *Ceratonia* and *Gleditsia* are dealt with and *Cercis siliquastrum* is mentioned as an ornamental. The bulk of the volume is given over to subfamily *Papilionoideae* and covers tribes *Sophoreae*, *Thermopsidae*, *Cytiseae*, *Crotalarieae*, *Robinieae*, *Astragaleae*, *Psoraleae*, and *Fabeae*. Here it is worth delving into the taxonomy and associated nomenclature. In most species-rich genera the species are aggregated into sections and in some instances into subgenera as well. For example, 41 species of *Astragalus* (contributed by D. Podlech of Munich) are placed into 26 sections in three subgenera. Similarly, 39 species of *Genista* fall into 11 sections, 14 species of *Cytisus* into 7 sections, 32 species of *Lathyrus* into 9 and so on. At the suprageneric level genera are placed in subtribes and tribes, several resurrected from the historical literature and some

recently described in two precursor papers to this volume (Talavera 1999, Talavera & Salgueiro 1999a), e.g., subtribe *Erinaceinae* Talavera (tribe *Cytiseae*) to accommodate the single genus *Erinacea*, and *Erophacinae* Talavera (tribe *Astragaleae*) for the reinstated genus *Erophaca*. At the tribal rank it is interesting to note that the volume accepts the priority of Berchtold and Presl names over those more traditionally encountered in similar Floras. Thus *Genisteae* becomes *Cytiseae*, *Galegeae* becomes *Astragaleae*. Tribe *Fabeae* Rchb. similarly replaces the more traditional *Viceae*.

The Flora explains that it basically follows the classification of Polhill & Raven (1981) with modifications where deemed appropriate, but there is no mention of Polhill's updated (1994) complete synopsis of legume genera which would have been a more pertinent cross reference. The volume recognises more genera in the *Cytiseae* (*Genisteae*) than does Polhill (1994). For example, *Chamaespartium*, *Pterospartum* and *Teline* are all reinstated as good genera. Some will no doubt argue that this is an overly splitty approach. The tribe is ripe for an in-depth molecular study and phylogenetic analysis.

Sophora japonica L. is referred to subgenus *Styphnolobium* (Schott) Burkart but there is no mention of the reinstatement and revision of the genus *Styphnolobium* Schott by Sousa & Rudd (1993). Polhill (1994) accepts *Styphnolobium* as a good genus and there seems little argument for not recognising *Styphnolobium japonicum* (L.) Schott as the correct name for the species. Of more concern is the placement of the genus *Argyrobolium* Eckl. & Zeyh. in tribe *Thermopsidae*. Explanation for this is presented in a recently published paper in the journal *Lagasalia* (Talavera & Salgueiro 1999b), but other authors place *Argyrobolium* in the *Cytiseae* (*Genisteae*), eg. Bisby (1981), Polhill (1994), and Van Wyk & Schutte (1995) and their case seems stronger.

The observation (on page 3) that all *Leguminosae* are fixers of atmospheric nitrogen due to the presence of bacteria in their root nodules is untrue. Throughout the family many species have this capacity but an appreciable number do not.

Also published in 1999 by the Real Jardín Botánico, CSIC was volume 16 of the journal *Ruizia*. The journal editor, S. Castroviejo, is also the general coordinator of *Flora Iberica*. Volume 16 of *Ruizia* is given over entirely to a paper by T. Rodríguez-Riño, A. Ortega-Olivencia & J. A. Devesa on floral biology in the *Fabaceae* (in their paper equivalent to *Leguminosae* subfamily *Papilionoideae* of *Flora Iberica*). Other discrepancies include the acceptance of tribes *Genisteae* and *Galegeae* rather than *Cytiseae* and *Astragaleae* respectively of the Flora. At the generic level, *Biserrula pelecinus* L. is recognised as being separate from *Astragalus*, whereas in the Flora it is placed in synonymy under *Astragalus pelecinus* (L.) Barneby. In the *Ruizia* paper the genus *Pterospartum* is not recognised as distinct from *Genista*, whereas in the Flora it is. The point here being that, even given that the Flora volume has probably been in preparation for some time, there is conflicting and controversial taxonomy and nomenclature being published for the legumes of the Iberian Peninsula. It would appear that some of the nomenclatural changes were made at the last minute in the Flora. A post-Flora paper in *Lagasalia* (Talavera & Salgueiro 1999b) adds weight to this assumption because in that paper the *Cytiseae* reverts back to the *Genisteae*. Users need to see more co-ordination and standardization of names for the flora of one region.

All that said, volume 7 (1) of *Flora Iberica* is a very comprehensive work. The four appendices include an etymological dictionary of the specific and infraspecific names encountered throughout the volume and there are good indexes of scientific and vernacular names. The full descriptions, detailed keys and high quality illustrations make the book a must for all those interested in European *Leguminosae*.

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