REVIEWS

Die Natürlichen Pflanzenfamilien (originally by A. Engler & K. Prantl). Second Edition. 28 b I, **Angiospermae, Gentianales, Loganiaceae**. Ed. A.J.M. Leeuwenberg, 255 pp., numerous plates, (with a chapter on secondary xylem anatomy by Alberta M.W. Mennega), 1980. Duncker & Humblot, Berlin. Price DM 188 (cloth).

This new volume in the second edition of the famous Engler & Prantl series 'Die Natürlichen Pflanzenfamilien' constitutes a landmark in several ways. In the first place because it implies a revival of an important taxonomic project which has been dormant for over 30 years; secondly because it is the first instalment in the English language; and thirdly and most importantly because the approach is completely multidisciplinary with important chapters on vegetative architecture, *wood anatomy*, pollen morphology, embryology, cytology and phytochemistry in addition to the compulsory parts on relationships and taxonomy.

The wood anatomy chapter by Dr. Mennega covers 49 pages and comprises detailed and beautifully illustrated descriptions of the 18 woody genera available for study. There is also a key down to the genera or in some instances even down to species. Wood anatomically the Loganiaceae show a most striking diversity in almost all wood anatomical features (vessel perforation type, vessel wall pitting, parenchyma distribution, ray type, fibre type, cell inclusions and included phloem all vary between wide limits), which is fully exploited in the discussions on family delimitation and tribal classification. Yet one cannot help wondering whether in the general discussion of relationships authored by all contributors to this volume, the data from both wood anatomy and pollen morphology have not been given too little weight, in order to save the rather broad family concept of the editor/taxonomist. Wood anatomically isolated positions of *Desfontainia* (on the fibre pits of which some conflicting statements are made on pages 154 and 157), Potalieae and to a certain extent the Buddlejaceae are not honoured in the final classification, although wood anatomy together with many other differential characters would support a better than tribal status for at least *Desfontainia* and Buddlejaceae.

It is gratifying that all hard facts on this family are presented together in this single volume. The multidisciplinary synthesis on delimitation and subdivision of the Loganiaceae will probably remain subject to debate for years to come – and paradoxically enough this publication will arouse rather than settle the argument. All

contributors, and in this Bulletin especially the wood anatomist, are to be congratulated with the appearance of this fine and stimulating monograph.

Pieter Baas

Understanding Wood – A craftsman's guide to wood technology. R. Bruce Hoadley, 256 pp., many illust. 1980. Taunton Press, Newton, Connecticut. Price US\$ 17.95 (cloth).

Wood enjoys an active interest from a large audience. Yet much is left to be desired about communication of the small wood scientific community with the amateur or professional wood worker or consumer. Dr. Hoadley's book can serve as an excellent tool to fill up this void.

With a very well written and illustrated text the reader is introduced to such complex topics as wood structure and identification (chapters 1–3), water and wood, dimensional instability, strength and other properties, machining, joining, finishing and modifying wood, etc. The chapters on wood structure and identification are exemplary for how to popularize a science without any concessions to superficiality or inaccuracy (which one often can find in popular books on trees). There are x10 macrophotographs of 54 woods commonly used in the United States of America, accompanied by brief but accurate descriptions of their salient hand lens characters. All other chapters belong to the realm of wood technology, but sometimes give anatomical detail in explaining for instance the effect of finishing wood with various grades of sandpaper. I have only one critical note: in the afterword on Forests past and future, the author voices an optimism which may well apply to mainly temperate regions like North America, but which is out of place if we consider the irreparable damage to, and waste of the tropical forest resource.

Dr. Hoadley loves wood; this becomes apparent from the way he writes about it, as well as by the exquisite wood carvings by the author which are used to illustrate several structural features or the effects of certain treatments. His book can be recommended to all wood scientists who have become overspecialized in their fields, but also it will be a useful gift to those interested friends and relatives, to whom we never succeeded in explaining what our work is all about. Moreover, considering the beautiful lay-out of the book, and the quantity and quality of the information it contains, 'Understanding Wood' is a bargain.

Pieter Baas