

REVIEW AND ANNOUNCEMENTS

Indian Woods - their identification, properties and uses. Vol. 4. S.K. Purkayastha, viii + 172 pp. + 30 plates, 1983. Government of India Press, Delhi 110 054. Price: Indian Rs 145.00; UK£ 16.91; US\$ 52.20 (hard cover).

This is a welcome new volume in the series Indian Woods, treating 22 families, including such important ones for the forests of India as Myrtaceae, Lythraceae, Rubiaceae and Ebenaceae. The organisation of the family treatments recalls Desch's well-known Manual of Malayan Timbers. For each family there is usually a general introduction giving data on distribution, taxonomy, and salient wood anatomical characteristics often including keys or tables for the separation of genera or species. This is followed by accounts of genera and species. Those of lesser commercial importance are only briefly treated; for the more important taxa detailed accounts include a survey of general properties, gross structure (i.e., wood anatomical features that can be observed with a hand lens), strength, seasoning, natural durability, insect and fungus attack, working qualities, and supply and uses, followed by a citation of specimens studied, together with their specific gravity values. Between these two extremes in amount of detail there are all intermediates, depending on the information in the literature or available at the Forest Research Institute, Dehra Dun. Each family treatment has a quite comprehensive bibliography at the end, although some important omissions were noted (e.g., Carlquist's papers on the wood anatomy of Compositae and Van Vliet's account of the Crypteroniaceae).

Appendices summarise the mechanical properties of the woods described and their lens characters in tabular form (a major aid for wood identification). There is also a very detailed classification of woods according to uses, including such amusing items as chest expanders handles (*Adina cordifolia* and *Lagerstroemia microcarpa*).

The plates give end-grain photographs at x 10 magnification of 180 species. Unfortunately the quality of reproduction is not always satisfactory.

From the wood anatomical point of view one might wish Indian Woods to incorporate the same amount of wood anatomical detail as the classical work of 1932 on Indian timbers by Pearson and Brown. However, from the practical standpoint the present series probably strikes a good enough balance. One technical

criticism cannot be left unmentioned: the change from the convenient format of the earlier three volumes to the larger size of volume 4 is most unfortunate, especially since no advantage was taken at all of the increased plate sizes. Indian Woods will now look a clumsy series on all book shelves. However, this should not detract prospective buyers. The book is a mine of information, brought together by the chief author and his nine collaborators (who are responsible for various individual family treatments) in a way which deserves our congratulations.

Pieter Baas

Biological nitrogen fixation in forest ecosystems: Foundations and applications. J.C. Gordon and C.T. Wheeler (eds.), 342 pp., illus., 1983. Nijhoff/Junk, The Hague, Boston, Lancaster. Price Dfl. 150.00; US\$ 65.50 (cloth).

This book contains 12 chapters on various aspects of nitrogen fixation in the forest, contributed by specialists from all over the world. Apart from chapters of general biological significance, there are contributions on research and practice in particular countries or continents (North America, Europe, South Asia, Australia, New Zealand). The subject index gives five leads to 'xylem', in all cases concerning physiological parameters such as xylem sap or xylem water potential.

Pinus caribaea - Wood properties and uses. J. Fraser, 125 references, 1983. Annotated Bibliography No. F30, Commonwealth Agricultural Bureaux, Farnham Royal, Slough SL2 3BN, U.K. Price: UK£ 10.15; US\$ 21.35 (paper).

The 125 abstracts from the CAB database cover the period from 1937-1982. Some wood anatomical abstracts are included.

Bamboos II. L.M. Ridout, 94 pp., 1983. Annotated Bibliography No. F32, Commonwealth Agricultural Bureaux, Farnham Royal, Slough SL2 3BN, U.K. Price: UK£ 11.85; US\$ 24.90 (paper).

This is a follow-up of Annotated Bibliography F15. F32 covers literature from 1978-1982 and includes not less than 359 abstracts, 17 of which deal primarily with anatomy and morphology. Another 10 references also include anatomical information.