of natural history drawings made for Joseph Banks. The engravings from the 738 extant plates are currently being published as *Banks Florilegium,* a publication which has by its nature only a restricted circulation. The present catalogue is more readily available and provides extensive information on the drawings as well as the copper plates, the associated manuscripts and specimens (given under the currently correct names). This first part gives information on the drawings of plants collected in Australia from 28 April to 23 August 1790; a second volume will deal with the drawings of the non-Australian botanical collections of the Endeavour voyage, a third volume will deal with the zoological collections. The catalogue provides an informative and detailed introduction; the description of the drawings consists of paragraphs dealing with the Latin plant name, associated specimens, references to manuscript descriptions by Solander, descriptions of drawings (outline and finished), copper plates, and additional notes. Indexes to plant names, place names and names of artists and engravers are provided. The color plates are simply beautiful. A publication made with obvious loving care for detail and of major importance for the history of botany as well as for plant taxonomy.]

DUNCAN, T. AND T. F. STUESSY, *Cladistics: Perspectives on the reconstruction of evolutionary history.* Columbia University Press, New York, 1984, xvi, [1], 312 pp., illus., ISBN 0-231-05430-0. Price US$45.00. The papers contained in this volume are the result of a workshop on the "Theory and Application of Cladistic Methodology" that was sponsored by the National Science Foundation and held at the University of California, Berkeley in 1981. The meeting itself was reviewed twice (Funk and Brooks, 1981, Syst. Zool. 30: 491–498; Coombs et al., 1981, Syst. Bot. 6: 359–372). The published versions of the papers are similar to the papers as presented in the symposium. A few papers are interesting (Brooks, Hull, Kluge, Nelson) and the remainder are out of date (Ashlock, Estabrook, Felsenstein, Fitch, Meacham, Phillips, Wagner), not about cladistics (Ashlock, Kaplan), or contain inaccurate statements about cladistics (Baum, Felsenstein, Stuessy and Crisci). Considering how long ago the symposium was held, it is not surprising that much of the information has been published elsewhere. In particular, a NATO symposium volume (Felsenstein (ed.), 1983, *Numerical Taxonomy,* Springer-Verlag), contains the essence of many of the papers of this volume. This is true because some of the contributions in the Duncan and Stuessy volume are concerned with numerical taxonomy as well as cladistics. This review will concentrate on the more interesting and/or useful contributions of the Duncan and Stuessy volume. Hull's paper (*Cladistic theory: Hypotheses that blur and grow*) has two conclusions about scientific development: 1) self-interest is an extremely important factor in the way science is conducted, and 2) scientific research programs need not and sometimes do not have a changeless "essence." Concerning number 2, Hull compares research programs to species because they change, acquire new characters and often become very different from what they were when they started. Kluge's contribution (*The relevance of parsimony to phylogenetic inference*) contains no new information but is useful because it is a straightforward discussion of parsimony and its various uses. The paper ends with a strong argument for using this criterion if one is truly interested in phylogenetic systematics. Brooks' (*Quantitative parsimony*) gives a useful explanation on how to construct Wagner Trees (Farris Trees) and Wagner Networks (Farris Networks). This paper was expanded into a workbook that treats the subject in detail (Brooks et al., 1984, *Principles and methods of phylogenetic systematics,* sp. pub. 12, Univ. of Kansas Museum of Natural History, Lawrence). Nelson's paper (*Cladistics and biogeography*) contains the most information that has not been published elsewhere. It is an interesting discussion of comparing area cladograms and contains suggestions on how to assess incongruent area-cladograms based on Assumption 2 of Nelson and Platnick (1981, *Systematics and biogeography,* Columbia Univ. Press). Considering the cost and how out-of-date the contributions are, I cannot recommend purchasing this book. [V. A. Funk, Smithsonian Institution, Washington, D.C., U.S.A.]

FELSENSTEIN, J. (ed.), *Numerical taxonomy,* Springer-Verlag, Berlin, 1983, x, 644 pp., illus., ISBN 0-387-12293-1, $64.00. [NATO ASI Series, Series G, Ecological Sciences, Vol. 1, based on NATO Advanced Study Institute on Numerical Taxonomy, Bad Windsheim, 1982; with 55 contributions on approaches to classification, taxonomic congruence, clustering and ordination, reconstructing phylogenies, analyzing morphological variation, geographic variation, and biochemical applications.]

Flora of Australia: Guide for Contributors. Bureau of Flora and Fauna, G.P.O. Box 1383, Canberra A.C.T. 2601, 26 pp., publ. August 1984. This detailed guide which is designed to assist the contributors