

Book Review

World Pollen and Spore Flora

S. Nilsson (Ed.)

Almqvist and Wiksell: Stockholm. SKr 50 per year as separates or free with subscription to *Grana*.

1. Fouquieriaceae DC. J. Henrickson, 1973.
2. Menyanthaceae Dum. S. Nilsson and R. Ornduff, 1973.
3. Magnoliaceae Juss. J. Pragłowski and J. E. Dandy, 1974.
4. Juglandaceae A. Rich. ex Kunth. D. E. Stone and C. R. Broome, 1975.

This flora represents a formalization and extension of the World Pollen Flora which was developed by the late Gunnar Erdtman, and in which four families had already been treated by 1972. The expansion of the flora to include cryptogam taxa, and its publication on a regular basis of two issues per year, is welcome. The second and third issues show a very useful approach, in which the palynologist reviews the pollen morphology of the family and the taxonomist then considers relationships within the family and with other groups using this information. This provides a change from a scenario in which the palynologist tears his hair because some taxonomist has lumped several pollen producers (plants) in one taxon, even though their pollen is clearly differentiated. For Australia, *Styphelia* provides a poignant example of this.

Each issue has a section entitled 'palynological comments on taxonomy' and the thought that someone will eventually be critically examining pollen morphology as it reflects on intergeneric relationships may encourage current workers to pay more attention to this plant character. The major reason, perhaps, why pollen has only a secondary role in taxonomy is that there is often little variation in morphology below generic rank. However, pollen is relatively invariable and highly consistent, and it offers the best chance of tracing some of the fossil history of given taxa. Clearly, then, taxonomists should either survey the variation in pollen in their groups themselves or coopt a palynologist to collaborate in a more detailed study. Admittedly it is easier to say this than find a palynologist with time to do it.

The production of the issues is of extremely high standard, particularly the photo- and electron micrographs. Full details of collections studied, preparation methods and measurements are provided, and the sources of pollen terminology given meticulously, all of which are very necessary in avoiding later confusion. A good world coverage is evident from these first issues; it is to be hoped that work on representative families from the Australian region will be submitted regularly.

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