

Polen de Gimnospermas y Fagáceas de la Formación Rio Turbío (Eoceno), Santa Cruz, Argentina. Edgardo Juan Romero. Fundación para la Educación, la Ciencia y la Cultura, Buenos Aires, 1978, 219 pp., 12 tables, 47 figures.

This book, issued under the auspices of the CIRGEO (Centro de Investigaciones en Recursos Geológicos), Buenos Aires, is written in Spanish. Because of this fact the book may not get the international attention which it deserves. It is a pity that the author only gives a brief summary in English whereas the complete text comprises so much information on so many interesting subjects.

After a short description of the geology of the area investigated, a long chapter follows on the pollen morphology of Gymnosperms and species of *Nothofagidites* found in samples of Eocene age. Thirteen gymnospermous species have been recognized, all with affinities to genera restricted to the Southern Hemisphere, such as *Araucariacites* (*Araucaria*), *Podocarpites* (*Podocarpus*), *Phyllocladites* (*Phyllocladus*), etc. Within the form genus *Nothofagidites*, with botanical affinities to *Nothofagus*, eight taxa are described among which two represent new species. All taxa are rather well illustrated by L-M photographs. As it was sometimes difficult to delimit the different species, discussions on classification, nomenclature, terminology and features have been included.

After having described and discussed these pollen markers ten cores were analyzed and the results given in a large number of pollen diagrams. Discussion on the stratigraphy, palaeogeography, palaeophytogeography and palaeoecology conclude the book.

Palynologists interested in pollen samples of Tertiary age from the Southern Hemisphere are recommended to use this book. Even for those unable to read Spanish fluently, the pictures and diagrams give enough valuable information to make good use of the data given.

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The Yorkshire Jurassic Flora, V. Coniferales. T.M. Harris. British Museum (Natural History), London, 1979, 166 pp., 7 pl., £22.50.

The recent publication of Professor Harris' fifth volume completes this major work on the Jurassic flora of Yorkshire. It embodies results of research carried out over four decades, his first paper on this flora dating from 1940. The first volume of his *magnum opus* (Thallophyta and Pteridophyta) appeared in 1961, the second (Caytoniales, Cycadales and Pteridosperms) in 1964, the third (Bennettitales) in 1969, the fourth (Ginkgoales — with co-author W. Millington — and Czekanowskiales — with co-author J. Miller) in 1974, and now in 1979 the fifth and final volume. It is a magnificent piece of work, meeting the need for an up-to-date compendium, and including much new information not previously published.

Harris rightly acknowledges that his study of the Yorkshire conifers owes a great deal to the work of Rudolph Florin (1958), but it nevertheless shows considerable advances both factually and of interpretation. He refers the sterile shoots to a limited number of form-genera (*Brachyphyllum*, *Pagio-phyllum*, *Geinitzia*, *Cyparissidium*, *Pytiocladus*, *Elatocladus* and *Lindleycladus* - formerly part of *Podozamites*), placing their fructifications — where known — directly following the species to which he attributes them. This practical approach provides welcome simplicity, though the “natural” species within a single form-genus may belong to different families and this is perhaps confusing. For instance, in the form-genus *Brachyphyllum*, *Brachyphyllum mamillare* (with its male cone and the female cone *Araucarites phillipsii*) belongs to the Araucariaceae, while *Brachyphyllum crucis* (with its male cone) belongs probably to the Hirmerellaceae (formerly Cheirolepidiaceae). I believe that it might be better to use form-genera only for those sterile shoots for which affinities are unknown, and to replace the sterile shoots in new natural genera once the fructifications (and thus the affinities) are known.

According to Harris, about half the total number of coniferous species from Yorkshire could either firmly or tentatively be placed in families. He gives an alphabetical list of these families (Araucariaceae, Cephalotaxaceae, Hirmerellaceae (Cheirolepidiaceae), Pinaceae, Podocarpaceae — recorded for the first time from the Northern Hemisphere —, Podozamitaceae, Taxaceae and Taxodiaceae), with the species placed in them.

His accurate descriptions are elucidated by very clear illustrations (over 60 drawings and 7 fine plates). Three new genera are described, the female cones *Scarburgia* and *Trulla*, the first probably with podocarpaceous affinities and the second with unknown affinities, and the shoot *Lindleycladus*.

This fifth volume, like the other four, is an outstanding work and a fitting tribute to Professor Harris' remarkable abilities.

J.H.A. VAN KONIJNENBURG—VAN CITTERT (Utrecht)

Pollen Flora of Argentina. Modern Spore and Pollen Types of Pteridophyta, Gymnospermae and Angiospermae. Vera Markgraf and H.L. D'Antoni. The University of Arizona Press, Tucson, Ariz., 1978, 208 pp., 43 pl., \$9.50.

Owing to its geographic position in southern South America, and to its varied topography, Argentina includes within its frontiers a veritable mosaic of vegetational units; the result is a rich flora involving a great diversity of types of pollen and spores.

Markgraf and D'Antoni have conceived this work as a complement to their respective investigations on palaeoclimatology and anthropology.

The aim is to provide support for future palynological investigations related with palaeoenvironmental problems in these areas of the South-American Continent.

With good judgement, the authors have emphasized the phytogeographical aspect of their work, selecting for the descriptions of pollen and spores the