

synonyms have been jettisoned and ignored almost from the moment of proposal, along with the invalid nominal genus. The prospect of family and superfamily names henceforth having to be altered so as to revive and immortalize invalid junior synonyms is as daunting as the prospect of the discreditable hunt that will be started among the literature, to be the first to unearth these corpses for revival.

If all palaeontologists who object to this clause becoming part of the Rules will write to the Secretary of the International Commission on Zoological Nomenclature, Mr. Francis Hemming, 28 Park Village East, Regent's Park, London, N.W. 1, let us hope that our protests may avail. (A copy of this letter is being sent him.) If any systematist feels that in an exceptional case it is desirable to retain a well-known family name based on an invalid synonym it is always open to him to apply for the protection of the Commission on behalf of that name. Otherwise, the Rules surely should state the obvious: namely, that the legitimate name of a family (or subfamily or superfamily) is that which is formed on the valid name of the type genus.

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COMMENTS ON THE CARIBBEAN OLIGOCENE

SIR,—Dr. Eames's attempt (*Geol. Mag.*, xc, 1953, pp. 388–392) to transfer half the Caribbean Oligocene into the Miocene is remarkable for the short list of references. The works of Caudri, Drooger, Grimsdale, Hedberg, Kugler, Olsson, Renz, Vaughan, and Woodring—to name but a few—should surely be considered before claiming flatly that *Miogypsina* indicates a Miocene age, regardless of other considerations.

A regional transgression can be recognized in the West Indies and in northern South America, Ecuador, and Peru. The transgressive beds are marked by the appearance of new faunal elements, which include Chattian-Rupelian molluscs (*vide* Olsson, Rutsch, Woodring, *et al.*), and Oligocene larger foraminifera (*vide* Vaughan and collaborators, Caudri, *et al.*). The genus *Miogypsina* appears in the basal transgressive beds in several countries (Drooger, *et al.*), and its early forms appear to be a direct development from the Lower Oligocene *Rotalia mexicana*. The basal Camana unconformity in Southern Peru is a local example of the regional transgression: the presence of *Miogypsina* (*Miolepidocyclina*) *ecuadorensis* establishes correlation with beds in Ecuador, which themselves underlie thick pre-Aquitanian shales. Hence the basal Camana beds are Oligocene and Eames's claim (*op. cit.*) of a Miocene age is unacceptable.

Between the time of the mid-Oligocene transgression and the first appearance of faunas of Aquitanian type, the planktonic foraminifera show a well-defined pattern of change and evolution, consistent over the whole mid-American region. *Globigerina dissimilis* survived for a short time. Near its evel of extinction the genus *Globigerinatella* made a short-lived appearance. The *Globorotalia fohsi* clan appeared, with an evolutionary sequence of subspecies, but died out abruptly as *G. menardii* appeared. *Orbulina universa* was preceded by its ancestral form *O. suturalis*.

European paleontologists could make an invaluable contribution to transoceanic Tertiary correlation by following Colom, Grimsdale, and others in recording the ranges of these species in the European Tertiaries.

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c/o INTERNATIONAL PETROLEUM CO.,
TALARA, PERU.
9th February, 1954.

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