

## UNCOVERING THE BIOGEOGRAPHICAL HISTORY OF THE COMMON SCLERACTINIAN REEF CORAL *ACROPORA*: THE ANGLO-FRENCH CONNECTION.

Brian ROSEN\* & Carden WALLACE\*\*

\* Department of Palaeontology, The Natural History Museum, Cromwell Road, London SW7 5BD;  
[B.Rosen@nhm.ac.uk](mailto:B.Rosen@nhm.ac.uk)

\*\* Museum of Tropical Queensland, 78-102 Flinders Street, Townsville, Qld 4810, Australia;  
<[Carden@mtq.qld.gov.au](mailto:Carden@mtq.qld.gov.au)>

*Acropora* (staghorn coral) occurs today throughout most of the tropical Indo-Pacific and Caribbean reef regions, and is the most abundant, widespread and species-rich reef coral genus, often in extensive mono-generic assemblages. With increasing concern about the stability, and even survival, of modern reef communities in the face of global and environmental change, it is relevant to ask how old this pattern is. The oldest known record of *Acropora* is from the late Paleocene of Somalia, but by the mid-Eocene it is known from Europe and tropical America. There are no records yet from the Indo-Pacific until the late Oligocene. Its palaeontology has been very neglected, but Wallace's recent comprehensive revision and phylogeny now provides a timely framework to begin a reassessment. Remarkably, the collections of The Natural History Museum revealed an unexpected palaeoenvironmental context for the early history of *Acropora*. The best preserved, oldest specimens come from mid-Eocene non-reefal, non-tropical (ca 50°N) deposits of southern England and northern France. Although the material consists of small broken pieces, preservation of skeletal detail is surprisingly good, allowing provisional allocation of specimens to various lineages in Wallace's phylogeny. In this talk we discuss the intra-generic affinities of this fossil material and preliminary thoughts on the biogeographical history of *Acropora*.

### References

- Wallace, C.C. 1999. *Staghorn Corals of the World; a revision of the genus Acropora*. CSIRO Press, Melbourne. 422 pp.
- Wilson, M.E.J. & Rosen, B.R., 1998. Implications of paucity of corals in the Paleogene of SE Asia: plate tectonics or Centre of Origin? In: HALL, R. & HOLLOWAY, J.D. (eds.). *Biogeography and Geological Evolution of SE Asia*, Backhuys Publishers, Leiden, The Netherlands, pp.165-195