

Cretaceous radiolarians from Baliojong ophiolite sequence, Sabah, Malaysia

Abstract

The Baliojong ophiolite sequence exposed along the Baliojong River in Northern Sabah consists of volcanic rocks, mostly basalts, overlain by sedimentary layers consisting of well-bedded cherts, mudstones and sandstones. The ophiolite sequence occurs as steeply-dipping overturned thrust slices oriented approximately north–south. A total of 42 chert samples were collected from the sedimentary layers. However, most of the samples contain poorly preserved radiolarians. Only nine samples yielded moderately well-preserved radiolarians from three selected thrust slices. A total of 32 taxa were identified. Based on the stratigraphic distribution of selected taxa, the radiolarians can be divided into two assemblage zones. The first assemblage zone is *Dictyomitra communis* Zone characterized by the occurrence of *Dictyomitra communis*, *Archaeodictyomitra* (?) *lacrimula*, *Sethocapsa* (?) *orca*, *Dictyomitra pseudoscalaris*, and *Pantanellium squinaboli*. The assemblage indicates Barremian to Aptian in age. The second assemblage zone *Pseudodictyomitra pseudomacrocephala* Zone contains *Pseudodictyomitra pseudomacrocephala*, *Dictyomitra gracilis*, *Dictyomitra montesserei*, *Xitus mclaughlini*, and *Dictyomitra obesa*. This assemblage indicates an age of Albian and the presence of *Pseudodictyomitra tiara* suggests the age may extend up to Cenomanian. Each thrust slice yielded more or less similar radiolarian assemblages indicating that they all came from the same sedimentary layers.