

Oligocene-Early Miocene Planktonic Foraminifera from the Temburong Formation, Klias Peninsula, Sabah, Malaysia

ABSTRACT

Oligocene-Early Miocene sedimentary rocks of the Temburong Formation exposed at the Klias Peninsula. The sediments samples consist of well-preserved planktonic foraminifera that's useful for age determination of sedimentary formation. The objective of this study is to classify the taxonomy and biostratigraphy of planktic foraminifera in the Temburong Formation at study area. A total of nine shale samples from eight localities (Te01 to Te08) were collected along the Kuala Penyu-Menumbok road, Klias Peninsula. All samples were processes based on standard micropaleontological method. Twenty-eight species of planktic foraminifera were successfully recovered from the samples. The planktonic foraminifera are *Cassidulina* sp., *Cassigerinella chipaloensis*, *Catapsydrax dissimilis*, *Dentogloboquadrina altispira altispira*, *Globigerina binaiensis*, *Globigerina ciperensis*, *Globigerina praebulloides*, *Globigerina praevenezuelana*, *Globigerina selli*, *Globigerina* sp., *Globigerina tapuriensis*, *Globigerina woodi*, *Globigerinoides altiapertura*, *Globigerinoides primordius*, *Globigerinoides triloba triloba*, *Globigerinoides trilobus bullatus*, *Globoquadrina baroemoensis*, *Globoquadrina dehiscens*, *Globoquadrina praedehiscens*, *Globoquadrina* sp., *Globoquadrina venezuelana*, *Globorotalia mayeri*, *Globorotalia obesa*, *Globorotalia opima nana*, *Globorotalia opima opima Bolli*, *Globorotalia* sp. and *Globorotalia siakanensis* Leroy. The foraminifera assemblage can be divided into three zones, P21/N2 *Globigerina angulisuturalis*/*Globorotalia opima opima* Zone, *Globigerinoides primordius*/*Globigerina kugleri* Zone N4 and *Globoquadrina dehiscens*/*Globoquadrina praedehiscens* Zone N5. Its concluded that the shale unit of the Temburong Formation from the Klias Peninsula was interpreted as a distal part of deep-sea fan deposited during the Upper Oligocene to Early Miocene (Chattian to Aquitanian).