

## SEDIMENTARY HISTORY AND PALAEOFACIES DEVELOPMENT OF UPPER OLIGOCENE TO PLEISTOCENE DEPOSITS IN THE BALINGIAN, SOUTHWEST AND CENTRAL LUCONIA, PROVINCES OF SARAWAK

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A more coherent picture of the Upper Oligocene-Pleistocene palaeofacies development in the Balingian, Southwest and Central Luconia provinces has been obtained by the intergration of existing palaeo-environmental and biostratigraphic data.

The results of this stratigraphic data compilation are presented in 11 stratigraphically arranged palaeofacies maps depicting the areal extent of the depositional environments.

The palaeofacies development in the Upper Oligocene-Lower Miocene in the Balingian, Southwest and Central Luconia provinces was very much controlled by the continuous opening-up of the South China Sea since early Tertiary times.

A period of block faulting and differential subsidence at the Lower to Middle Miocene transition in the Central and SW Luconia provinces resulted in the formation of a large number of structural "Highs" and "Lows". Subsequently, carbonate deposition started on these "Highs" during the early Middle Miocene in the form of isolated reefal buildups.

Carbonate deposition came to a halt during and at the end of the Late Miocene in the greater part of the Central and SW Luconia provinces.

A major tilt of the Sarawak Shelf towards the NE during the Late Miocene and well expressed at the Mio-Pliocene boundary had a direct influence on the sedimentary history of the area. The sedimentary processes resulting from this northeastern tilt may have been intensified by a sharp drop in global sea-level during this time interval, followed by a major rise in sea-level during the Early Pliocene.

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