

FACIES VARIATION IN SIX CARBONATE BODIES OF NORTH SARAWAK

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Comparative sedimentological study on six carbonate bodies of Eocene to Middle Miocene age in north Sarawak were undertaken to unravel their depositional environments from their facies. These carbonate bodies are in younging order (their names are all informal):

- (f) the Subis Limestone
- (e) the Sual Limestone,
- (d) the Batu Bertongkat Limestone,
- (c) the Batu Parau Limestone,
- (b) the Sungai Payang Limestone,
- (a) the Batu Gading Limestone.

A small part of the Miocene of Batu Gading and a substantial part of the Subis Limestone exhibit sedimentological characters and faunal and floral content indicate the building-up of the carbonates were through processes of ecologic reef sedimentation. The other limestones were deposited essentially as piling-up of larger foraminifera either as shoal sands, storm deposits or bioclastic banks. Encrusting algae present in some horizons further bound some of these bioclasts into small patch reef boundstones. The main bodies of these carbonates were deposited in shallow marine environment. However, parts of the Subis Limestone were deposited on the reef flanks and deeper basin. The younger Miocene of the Batu Gading Limestone were probably deposited in deeper open marine setting as these are thin well-bedded biomicrite with abundant planktonic forms as well as derived shallow water bioclasts.