

Stratigraphy and structure of the islands off Gunung Jerai and Pantai Merdeka, Kedah.

**W.Y. Foo, Petronas, P.O. Box 2444, Kuala Lumpur and
T.T. Khoo, Jabatan Geologi, Universiti Malaya, Kuala Lumpur.**

The area is underlain by three units. They are, namely, a) Terundak mudstone (not metamorphosed), b) Patani Formation (metamorphosed) and c) Bunting Metamorphics.

The Bunting Metamorphics consists of a metamorphosed quartz porphyry intrusion and metasediments such as quartzite, schists, hornfelsic and gneissic rocks. They occur only in Pulau Bunting. The Patani Formation rocks occur in most of the area studied. Here they have been regionally metamorphosed to slates and phyllites and also marble. The metapelites show one or more sets of cleavages and are black, grey, green or red. The marble is dark coloured. The Terundak mudstone is a dark pebbly mudstone occurring only at Tukun Terundak. The pebbles are quartzite and limestone.

The unmetamorphosed nature of the Terundak mudstone indicates that it is the youngest unit. Lithologically, it appears to be similar to rocks of the Carboniferous Singa Formation. The Bunting metasediments appear to have lithological similarities to the rocks of the nearby Jerai Formation (Cambrian?) and may be the oldest of the three units. The Patani Formation rocks here which are sometimes fossiliferous are Ordovician-Silurian. It is uncertain whether the Devonian is also represented in the Patani Formation rocks and whether the contact of the Terundak mudstone with the metamorphosed rocks is faulted, unconformable or other nature.

The early foldings associated with metamorphism appear to be very complex. The possible occurrence of slumping made interpretation of the structures more difficult. More than one phase of folding is likely.
