

---

---

## **Problems in biostratigraphy of Malaysian Tertiary basins**

**BAHARI MD. NASIB, AWALUDIN HARUN & AZMI MOHD. YAKZAN**  
PETRONAS Petroleum Research institute

Some problems on the application of foraminifera, calcareous nannofossils and palynomorphs in biostratigraphic studies of Malaysian Tertiary basin are discussed.

Although foraminiferal studies are quite established, correlation across exploration blocks still remains a problem as different schemes are being used by different exploration companies.

As for calcareous nannofossils, their application is very much restricted by the environmental factors which control their distribution. The disappearance of species due to changes in environment could be mistaken for evolutionary changes. Post-depositional dissolution also causes problems. Some reported marine sediments are found to be barren. Published zonation schemes are not totally applicable. Certain marker species of some zones are not very common or totally absent. This has led to problems in age determination and correlation.

*Nov-Dec 1991*

Palynological age dating for this region is limited to a few long-ranging species of pollen and spores. A single zonation scheme, like those for nannoplanktons and foraminifers, is not available for palynology mainly because different parts of the basin are characterized by unique palynological assemblages. A complete account of fossil and Recent pollen/spores has never been published for the Southeast Asian region. This is because of the proprietary nature of the data, which remain in the oil companies' files. Moreover, little palynological research is done at local universities.

These problems could probably be solved by carrying out detailed study on all microfossil groups and establish a uniform biostratigraphic framework applicable for the whole region. For palynology, each basin or sub-basin has to be studied separately to identify their characteristic assemblages. A unified scheme for the whole region can then be established for correlation purposes.