

An example of an abstract

An Application of Diatom Analysis for Environmental Monitoring at Mangrove and Lagoon Areas in South-East Asia

(14 point, Bold)

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(9 point)

Abstract: Maintaining the quality of natural resources in an enclosed coastal area like mangrove rapidly became an important environmental issue of the 1990s. Has the quality changed as a result of human activities or as a result of natural environmental changes, such as climatic change? What were the timing, rate, and extent of environmental change, and how can we infer these aspects?

Mangroves also have been very important places for human beings since ancient days, because there are many archeological sites around them. However long-term monitoring data of their environment usually do not extend back more than a few centuries, and for many regions the historical record is much shorter.

Diatoms have been extensively used as indicators of environmental change, for example, eutrophication, acidification, salinification, sea level change and land use change. Due to the effective preservation of diatom valves in sediments, the distribution of diatoms in sediment cores can provide a high-resolution record of the aquatic environmental change. Therefore, paleoecological studies using diatom remains in undisturbed sediment cores taken from mangrove lands can provide quantitative reconstructions of their environments for thousands of years.

The purpose of this study is to document diatom assemblages associated with definable environmental gradients, in order to develop the database necessary to attempt paleoecological interpretations of Holocene environmental changes at mangrove areas in Malaysia. Therefore, results from the modern-distribution analyses were then used in a paleoecological analysis of diatoms collected from three vertical sections in the Matang mangrove at northwest coast of Malay Peninsula.

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Keywords: human impact, intensive cultivation, sediment supply, source of sediment
(within 5 words)