

# Razor Clams (*Solen* spp.) of Kuching Bay, Sarawak, Malaysia

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## **Abstract**

Razor clam (*Solen* spp.) is one of the most important Bivalvia in Kuching Bay, Sarawak. They are filter feeders, infaunal marine bivalves that can be found in beaches comprising mixture of sand and mud. There are three species which co-exist in this area, with *Solen regularis* as the most common species. Local people harvest razor clams during late August to early March annually, either for source of income or domestic use. Preliminary survey recorded complaints from local people about decrease in harvest, therefore research was carried out to validate the matter. Transect line was used to assess density of razor clams and data collected in Asajaya showed that density of razor clams is decreasing (approximately 6,768 individuals/ha in 2005; 4,868 individuals/ha in 2006). Further research is designed to determine the spawning season; and qualitative data was obtained by interviewing local people regarding socio-economic aspects. The presence of gonad was recorded between August to late October and early development of gonad is most likely to begin in late January. Socio-economic data suggested that local people inherit rich local knowledge about razor clam distribution and high skill related to ecological-friendly methods used for harvesting but they have limited knowledge on science and conservation. Recently, a team of researchers from Universiti Malaysia Sarawak (UNIMAS) started a comprehensive project which aims to explore the possibility of establishing aquaculture or 'sea ranching' of razor clam in this area, hoping to reduce pressure on razor clam natural stock. This paper is about conservation efforts on razor clams of Kuching Bay, prospects and challenges.

**Key words:** razor clam, Sarawak, diversity, conservation

## **1.0 Introduction**

Sarawak, the largest state in Malaysia, has around 800 kilometres of coastlines facing the South China Sea. Kuching Bay area is only a very small portion of this long coastline. This area is mainly characterized by mangrove forests, mudflats, rocky cliffs and sandy beaches. Kuching Bay is blessed with high biodiversity and experienced very minimum natural catastrophe. Local communities practise subsistence fishing and small scale agriculture around the bay while moderate urbanization occurs in Kuching City area and other small towns. One of the Totally Protected Area, the Bako National Park is located adjacent to this bay.

One of the most important Bivalvia found here is the razor clam (*Solen* spp.). They are soft bottom infaunal marine bivalves with more or less narrow and long shells, gaping at both ends. They prefer intertidal sandy beaches or sandy bars, especially on the western part of Sarawak. Preliminary work on taxonomy by Ruhana & Hung (2006) revealed three species or 'types' of razor clam (local name as 'ambal') in Kuching Bay area, namely *Solen regularis* Dunker 1962 (ambal biasa), *S. vagina* Linne 1758 (ambal jernang) and *S. sarawakensis* Cosel 2002 (ambal riong). The above scientific names were