

## **Inner shell as variation key of local hard clam *Meretrix* spp.**

### **ABSTRACT**

The morphology and 12 shell morphometric features proportionate to shell length were analysed between local hard clam; *Meretrix lyrata*, *M. meretrix* and *M. lusoria* from Sarawak, Malaysia. *Meretrix* spp. was observed to comprise a unique feature of a pallial sinus scar for each species. Analysis of variance revealed significant differences among *Meretrix* spp. using proportion ratios of SL for SW; LL; AL; LCT; AW; PW and PS ( $p < 0.05$ ). Cluster analysis among morphometric features of *M. lyrata*, *M. meretrix* and *M. lusoria* were discriminated at 98.5% similarities and supported by the principal component analysis. The present study suggests that pallial sinus scar shape, together with interior and exterior morphometric features, were suitable as identification keys for *Meretrix* spp. Hence, the present study emphasizes on the application of interior, rather than exterior morphology and morphometric features in hard clam identification before further investigation can be performed through genetic identification means.

**Keyword:** Hard clam; *Meretrix* spp.; Morphometric; Pallial sinus scar