

**Species diversity and distribution of mud crab in Marudu Bay mangrove forest
reserve, Sabah, Malaysia**

ABSTRACT

Sabah has extensive mangrove forests surrounded by oceanic waters which provide suitable habitat for many species of animals including mud crabs (*Scylla* spp.). This study was conducted to obtain information on the species composition, distribution and catch per unit effort in Marudu Bay, Sabah. Samplings were done monthly in five mangrove areas along the river channels in Marudu Bay (06°33'N; 114°44'E) from October 2012 to September 2013 using collapsible baited crab traps. From a total of 1859 mud crab specimens caught in Marudu Bay, three species were identified. *Scylla tranquebarica* was the dominant species forming 78% of the total followed by *S. paramamosain* 13% and *S. olivacea* 8%. The number of males (n=1224) was higher compared to females (n=635) with an average sex ratio male: female of 1.0:0.5. The catch per unit effort (CPUE) showed an average value of 0.55 trap-1 day-1 and revealed a declining trend throughout the sampling. *S. tranquebarica* was widely distributed in all the rivers surveyed, however, it mostly occurred in near the lower reaches of the river near the areas open to the sea where average water salinity ranged from 12.98 to 14.28 ppt and the environment favoured the growth of *Rhizophora* sp. Other species, *S. paramamosain* and *S. olivacea*, were mostly found in upstream areas covered generally by *Nypa* sp. and where average water salinity varied from 6.93 to 7.50 ppt. The information on the species composition, distribution and CPUE of the mud crabs in Marudu Bay can be useful for mud crab fisheries resources management in Sabah.