

Distribution and environmental associations of invasive freshwater *Pomacea* snails in Peninsular Malaysia

ABSTRACT

Freshwater habitats represent one of the most important ecosystems for sustaining terrestrial biodiversity and human societies, but are particularly vulnerable to the effects of pollution and species invasions. Two highly invasive species of freshwater snail, *Pomacea canaliculata* and *P. maculata*, occur in Malaysia, but apart from their impacts on rice agriculture, little information exists about their distribution and associated environmental factors. We investigated the distribution of these two species and associated environmental gradients by surveying 550 quadrats at 108 geographic locations in Malaysia and measuring selected water parameters, including the species richness of co-occurring gastropods. Sampling locations comprised five different habitats: rivers and streams, lakes and ponds, reservoirs, waterfalls, and rice fields. We used DNA sequencing and rapid.