

Connectivity of the small giant clam population *Tridacna maxima* in Indonesia

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Giant clams are considered economically and ecologically important species in coral reef ecosystem¹. The growing demand of giant clams for protein source, shells, and ornamental aquarium trade is threatening their stock to overexploitation². Like other giant clam species, *Tridacna maxima* is facing declining populations in many countries worldwide, including Indonesia³. All species of giant clams are listed on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Marine Protected Area (MPA) has been considered as a useful management tool to ensure the sustainable use of marine resources⁴. Connectivity pattern based on genetic data analysis could be useful for design MPA networks and ensure the sustainability of marine resources use. Previous study on *T. maxima* in Indo-Malay Archipelago (IMA) using a mitochondrial DNA (mtDNA) cytochrome c oxidase subunit I (COI) marker showed restricted gene flow in western, central, and eastern part at this region¹. In this study, the genetic population structure will be examined with nuclear microsatellite markers and compared to previous studies using mtDNA, in order to verify the concordance of both marker systems.

References

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