

Genetic diversity of the mud crab *Scylla serrata* in Indonesian coasts

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The mud crab *Scylla serrata* is an important commodity in commercial fisheries in the Indo-West Pacific and especially in Indonesia. Increasing exploitation rates and mangrove degradation are threatening *S. serrata* in Indonesian coasts. Therefore, genetic diversity of *S. serrata* populations in relation to this decrease of mangrove area will be investigated at three sample sites in the western, central and eastern region of Indonesia. Tissue samples (pleopods) of *S. serrata* individuals from three sampling sites were collected and preservation in 99 % ethanol. Analysis will be performed through DNA extraction and PCR in order to amplify and sequence a fragment of the mitochondrial DNA cytochrome oxidase subunit I (COI) gene. Data analysis will be performed by making a sequence alignment with the program MEGA7 and DNA barcoding. Further analysis will estimate the genetic diversity of these three *S. serrata* populations and determine if they are genetically different. The preliminary results include that a successful PCR protocol was established for the amplification of COI with species-specific primers.

Keywords: Genetic diversity; Mangroves; Indonesia; Polymerase chain reaction; *Scylla serrata*