



Research Highlight

Assessment of the Ovarian Maturation Stages of Mud Crab (*Scylla olivacea*)

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Mud crab scientifically known as *Scylla olivacea* is a commercially important crab it provides a fundamental source of income for coastal fishing communities all through the Indo-Pacific region¹. Therefore, the production of mud crab through aquaculture is becoming vital as an export commodity in some countries.

Mud crab is considered as a significant export commodity. Southeast Asia had become one of the first regions to practice mud crab aqua farming by focusing on capture and fattening of the juvenile crabs from wild² because they are highly demanded all size classes.

Moreover, demand for orange mud crab has been amplifying due to its qualities such as large size, high meat yield³ as well as rapid growth during culture⁴.

Accordingly, scientists decided to conduct novel research for determining the female size at sexual maturity and to record the ovarian maturation stages of orange mud crab, *S. olivacea* through ovary external morphological as well as histological descriptions from the west coast of Peninsular Malaysia.

For this purpose, scientists recorded the carapace width and CW_{50} for external morphological descriptions and the ovaries were utilized in the histological descriptions to study the size of their oocyte based on each ovarian maturation stages.

Conclusively, *S. olivacea* female CW_{50} was found to be 8.9 cm. During this experiment, scientists observed that the ovary color alters in every ovarian maturation stage ranging from translucent for stage 1, yellowish during stage 2, orange in stage 3 and finally the ovary turned to dark orange during stage 4 when the ovary is well developed. Similarly, the size of the oocytes in the ovaries amplifies as the ovary developed further.

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Key words:

Mud crab, *Scylla olivacea*, ovary color, oocytes, histological descriptions, aquaculture, ovarian maturation stages

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