

Taxonomic identification of five varieties of crab in the genus *Scylla* (Crustacea: Decapoda) inhabiting the Southern coast of Sri Lanka

B.C.J. De Silva and D.H.N. Munasinghe*

¹*Department of Zoology, Faculty of Science, University of Ruhuna, Matara, Sri Lanka.*

Southern Sri Lanka, comprising of a considerable fraction of important fisheries resources of the country, is rich in food fish together with crustaceans and molluscs. Among crustaceans, crabs are considered as one of the major sources of protein and hence a valuable economic resource. Genus *Scylla* is one of the most important groups of edible crabs caught from lagoons and estuaries, which generate a better income due to demand of the export and local markets. Different varieties have been identified from the genus *Scylla* in the Southern coast of Sri Lanka which are referred to as 'Gan Kakuluwa', 'Kadol Kakuluwa', 'Keran Kakuluwa', 'Jumbo Kakuluwa' or 'Mas Kakuluwa' and slight morphological differences could be observed among them. However, no proper scientific identification has been conducted yet to verify their species status. So far, *Scylla serrata* is the only documented edible species in the Genus *Scylla* in Sri Lanka.

Species status of five *Scylla* varieties was determined using approximately 650bp partial sequences from bar coding mitochondrial COI gene region. Derived sequences were blasted with the Genbank to get the maximum identity for each variety. Blast results identified 'Kadol Kakuluwa' as *S. olivacea* and all other varieties as *S. serrata*. Therefore, it can be concluded that two different species of the genus *Scylla* are found in the Southern coastal belt of Sri Lanka. This investigation together with the barcoding information of these two species could be used for the betterment of the crab fishery industry and for conservation purposes.

Keywords: *Scylla serrata*, *Scylla olivacea*, mitochondrial COI gene, Southern coast of Sri Lanka

*Corresponding author e-mail: dhn@zoo.ruh.ac.lk, donamunasinghe@gmail.com