

## Genetic cataloguing of Octopus species from coastal waters of Kerala using molecular markers

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Octopuses are one of the commercially important fishery resource form the Indian coast and there is a targeted fishery for octopus in many fish landing centres in Kerala. There are lot of taxonomic ambiguities within the octopus species and the accurate identification of species is of prior importance in conserving such vulnerable species. With a view to identify and genetically catalogue the octopus species of Kerala coast, specimens were collected from different landing centres of the region. Molecular characterization was done with partial sequence information of mitochondrial gene Cytochrome C oxidase-I (COI) gene. Total 17 specimens of 7 species were collected from 4 locations and COI sequences were generated (650 bp). 7 species

included viz, three ocellate octopus, belonging to the genus *Amphioctopus*; (*Amphioctopus neglectus*, *A. marginatus* and *A. rex*), two from genus *Cistopus*: (*Cistopus Indicus* and *C. taiwanicus*), one each from *Octopus vulgaris* and *Callistoctopus macropus*. Both genus of *Cistopus* and *Amphioctopus* showed the intra and inter specific distance ranging from 0.0-1.0 % and 7.0-21.0 %, respectively. Phylogenetic analysis using maximum likelihood approach revealed that all the genera of the family Octopodidae are monophyletic.