## World Academy of Science, Engineering and Technology International Journal of Biological and Ecological Engineering Vol:18, No:03, 2024

## A Taxonomic Study on Cephalopods (Mollusca: Cephalopoda) from the Northern Bay of Bengal

Authors: Foyezunnesa Setu, S. M. Sharifuzzaman

Abstract: Cephalopods, belonging to the taxonomic class Cephalopoda under the phylum Mollusca, have a global distribution and are particularly common in the coastal waters of Bangladesh, specifically in the southeast and southwest regions. Identifying them can be difficult due to their pliable anatomical characteristics. Due to the presence of concealed cephalopod species within the orders Sepioidea, Teuthoidea, and Octopoda, these groupings of invertebrates, which share common characteristics, are frequently misidentified as distinct entities. Until now, cephalopods have been ignored because there is not enough knowledge about the specific species and the necessary preliminary research has not been done. This study offers a systematic description of various cephalopod species found along the south eastern coast of Bangladesh. A combined total of 25 cuttlefish specimens, four squid specimens, and five octopus specimens were gathered from the shores of Saint Martin's Island and Cox's Bazar. Based on morphological analysis, a total of 14 cephalopod species are identified. These species include Sepia aculeata, Sepia esculenta, Sepia pharaonis, Sepia prashadi, Sepiella inermis, Sepiella japonica, Uroteuthis duvauceli, Doryteuthis singhalensis, Sepioteuthis sepioidea, Eupryma stenodactyla, Amphioctopus aegina, Callistoctopus macropus, Octopus ceynea, and Octopus vulgaris. Six newly discovered species, including Sepia prashadi, Sepiella japonica, Sepioteuthis sepioidea, Eupryma stenodactyla, Callistoctopus macropus, and Octopus ceynea, have been identified in Bangladesh. Taxonomically, the identification of cephalopods is difficult due to the significant resemblance between species and the scarcity of information and preparatory research. This study offers significant insights about the cephalopod fauna found in the northern region of the Bay of Bengal.

Keywords: cephalopods, new records, northern bay of bengal, taxonomic identification

Conference Title: ICMEFB 2024: International Conference on Marine Ecosystems and Freshwater Biodiversity

**Conference Location :** Barcelona, Spain **Conference Dates :** March 04-05, 2024