

## CHAPTER 4

### Study of crab diversity and evaluation of nutraceutical values of *Scylla serrata*

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#### ABSTRACT

*Odisha state is rich with edible faunal species. Among them crab is very common and used to make different types of cultural foods. Scylla serrata, a crab found in Chilika Lake and nearby areas, it is used as food. The biochemical evaluation of Scylla serrata showed that they are rich with primary metabolites and phytochemical analysis revealed that crab is rich with secondary metabolites. Present study makes Scylla serrata as a potent nutraceutical. Crabs are the most common used crabs for both medicinally and nutritional value. Hence, an attempt has been taken to study about the variegation of crabs especially in Odisha and surveys were done. From the survey several crabs were reported with their behaviors, food and habitat were noted. Crabs are omnivorous; feed primarily on algae, some molluscs, worms, crustaceans, fungi, bacteria and detritus, depending on their availability and habitat. Scylla serrata and Queen Crabs are generally, most common and having many nutritional values and medicinal values. The most used crab, Scylla serrata is collected from the Nayapali market, Bhubaneswar. Nutritional analysis was done by the phytochemical screening, qualitative tests and quantitative estimation. Then lastly the Cytotoxicity test was done using the Artemia salina to know whether there is any cytotoxic compounds in the crab extract. Last but not the least it was concluded that considered species is edible to eat having lot of nutritional and medicinal values.*

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**Keywords:** *Scylla serrata*, Nutraceutical values, Medicinal values, Chilika Lake

#### 4.1 INTRODUCTION:

Mother Nature has created different kinds of amazing creatures which are the most valuable gift to the earth. The phylum Arthropoda is a large group of animals distinguished from all other by their hard exoskeleton and segmented body. The dominant marine arthropods are the crustaceans, and among these are the decapods, which include the crabs, lobsters, prawn, shrimps etc. Decapods literally mean “ten footed “or five pair of legs. Crabs are decapod crustaceans of the infraorder brachyuran, which typically has a very short