

Diversity and seasonal distribution Study of Mantis Shrimp *Oratosquilla* Species (Crustacea: Stomatopoda) in Sonmiani Bay Balochistan Pakistan

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ABSTRACT

Introduction: The, biodiversity evaluations are consent to the quantification of the ecological function of various biotypes through the perceptive abundance of species (Izsák & Papp 2000). The sub-phylum Crustacea includes about more than 67,829 species (Bueno, 2007), of which around 450 species belongs to stomatopods (Order Stomatopoda Latreille, 1817, Superorder Hoplocarida Calman, 1904) or mantis shrimp (Ahyong 2001). Stomatopods are distributed over a broad area, their vast majority live in the shallow tropical reefs and other tropical habitat (Kodama et al., 2004) mainly in tropical and subtropical provinces of the Atlantic (eastern and western), eastern Pacific, and as well as Indopacific oceans (Viana et al. 1998). These species are basically marine inhabitant, hardly ever found in brackish waters and occupy a variety of depths (150-400m) and as well as at the bottom. As inhabit burrows in sand or mud. In Asia, as a fishery resource or fisheries product the importance of mantis shrimp has long been recognized (Lui *et al.*, 2007). *Harpisquilla raphidea* in Indonesia (Wardiatno and Mashar, 2010) and *Oratosquilla oratoria* in Japan (Kodama *et. al.*, 2004) are commercially valuable species (Wardiatno, et. al, 2012).

Materials And Methods: The study area encompasses the coast of Balochistan in Sonmiani Bay. Sampling was carried out from October 2020 till September 2021. The collection was performed during low and high tides and the collected specimens were stored in ice in individually-identified bags, labeled with date, and tide. The Mantis shrimp captured using gill nets of 3.5 cm in mesh sizes and identification was done through the available identification key of Tirmizi and Bashir, (1973); Dore and Frimodt, (1987). Collected data is presented in form of different tables based on seasonal distribution, tides and number of species in each category.

Result: A total of 106 specimens pertaining to four species were identified of Genus *Oratosquilla* (*interrupta*, *woodmasoni*, *nepa* and *hesperia*) in the yearly collection. *Oratosquilla interrupta* and *O. woodmasoni* were found in abundance during the one year of study period. Seasonal variations was observed in the diversity of the species and the highest diversity was observed during North East monsoon. The size distribution was also observed and was different for all the four species.

Conclusion: The present study aimed to characterize the diversity and distribution of Genus: *Oratosquilla* from Sonmiani Bay (Balochistan, Pakistan) waters during October 2020 till September 2021. The Ecology of mantis is affected by seasonal fluctuations, by meteorological factors and trophic factors; which may influence in the number of the species.

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