

Identification of Intertidal Rocky Shores Sea Cucumber Species in the North Coast of the Persian Gulf Using the Comparison of the Internal Skeletal Structure

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Abstract

We collected our samples from 6 stations in the four seasons of spring, summer, autumn and winter 1391 performed to identify and evaluate the skeletal structure of sea cucumber species in tidal rocky northern coast of the Persian Gulf. Finally, after the study of morphological and microscopic species of sea cucumber *Holothuria parva* and *Holothuria arnicola* from Holothuriidea families were identified. *Holothuria parva* and *Holothuria arnicola* were the highest average of 13.4 and 1.47 person in 200 m, respectively. In terms of building calcareous skeleton that are important in the microscopic identification in five parts of body that include anterior, ventral, dorsal, ventral, and Tentacles; the results showed that there were clear differences between the two species. The most common type of spicules that observed in all parts of the button of *H. arnicola* was circle (often with a 3-hole pairs) but in the *H. parva* was any kind of barb bar. Diversity and abundance spicules in Tentacles of *H. arnicola* species was lesser than other sectors. In all parts of the various forms of bar spicules prickly thorn of *H. parva* there were differences in the number, location and size of spines. We determined the significance of skeletal microscopic structure in their taxonomy of these species.

Keywords: Sea cucumber, Internal skeletal, Tidal, Persian Gulf.
