



154 - PATTERN OF SHELL UTILIZATION OF THE HERMIT CRAB CLIBANARIUS VITTATUS (BOSC, 1802) (CRUSTACEA, ANOMURA), IN ESTUARINE REGION OF SÃO VICENTE (SP), BRAZIL

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The objective of this study was to evaluate the utilization of gastropod shells by the hermit crab Clibanarius vittatus at the beach of Pescadores, in São Vicente (SP), Brazil. Monthly samples were accomplished from May/2001 to April/2003, in intertidal region during the low tide. The animals were measured (cephalothoracic shield length), weighted and their shells identified and measured (length; opening; dry and wet weight). Regression analyses were made involving the shell variables (dependents) for those of the hermit crab (independents). A total of 2,344 specimens were been analyzed (644 males, 1,504 females without eggs, 45 ovigerous females, and 61 intersex specimens), using 13 gastropods shells species, represented mainly by the Stramonita haemastoma (95.3%), Cymatium parthenopeum (2.1%) and Achatina fulica (0.9%). The sexes differed significantly in length, with the males and intersexes reaching larger size ($p < 0.05$), influencing the pattern of occupation of the shells, particularly for A. fulica, occupied only by these categories. C. parthenopeum was the only shell species that showed more expressive determination coefficients for all the biometrics analyzes, although not being the most available in environment. This contrast with S. haemastoma, characterized by largest abundance and high occupation percentile in the intertidal region studied, has been more available to the hermit crab that occupies the same ecological niche of this gastropod.

155 - PATTERN OF SHELL UTILIZATION BY THE HERMIT CRAB PAGURUS EXILIS (BENEDICT) (DECAPODA: ANOMURA: PAGURIDAE) IN THE AREA OF MAR DEL PLATA-MAR CHIQUITA, BUENOS AIRES, ARGENTINA

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The hermit crabs P. exilis inhabit coastal marine water of the Argentinean Province, including Argentina, Uruguay and Brazil up to ten meters depths. The objective of this study was to identify the pattern of gastropod utilized for the hermit crab using the percentage of the different shell types occupied and the morphometric relationship between hermit crabs and occupied shells. In Mar del Plata-Mar Chiquita (38° SL) samples were taken using otter trawl. The animals and the shells were measured and weighed. A total of 769 hermit crabs were studied (600 males, 125 females, 44 ovigerous) utilizing 15 species of gastropod shell. The shells more occupied were Buccinanops cochlidium (Chemnitz, 1795) (29 %), B. monilifer (Valenciennes, 1834) (28 %), Natica isabelleana d'Orbigni, 1840 (19 %), B. uruguayensis (Pilsbry, 1897) (9 %) and Olivancillaria deshavesiana (Duclos, 1857) (5.5 %), the remaining gastropods shells were utilized in percentages lower than 5 %. N. isabelleana is not a common gastropod shell species living in the area of study and P. exilis should obtain it in an area distant from the hermit crab habitat. There was differential shell occupation between sexes being B. uruguayensis more occupied for ovigerous than males and females. As in another species of hermit crab studied, regression analysis showed best correlation between the size of the crabs (shield length) and shell volume.