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Neolithodes diomedea (Benedict, 1894) IN THE GUAYMAS BASIN, GULF OF CALIFORNIA: OCCURRENCE AND FOOD SOURCES.

Deep-water lithodid crab Neolithodes diomedea is a common faunal component in the proximity of hydrothermal vent systems of Guaymas Basin. Its estimated density may reach up to 4 ind/m<sup>2</sup> and a biomass of 45.7gC/m<sup>2</sup>. Spatial patterns of distribution include gregarious habits in adults on non-active sites and random occurrence in young individuals, normally spotted on bottoms covered by bacterial mats. Isotopic signal of crabs indicates an allochthonous carbon source ( $\delta C$  muscle: -16.902 to -13.761ppt, gills: -19.353ppt). The nitrogen composition reveals a high trophic position ( $\delta N$  15.33 to 15.54ppt) in the deep-water food chain. This carnivore includes in its diet small crustacea, polychaetes, molluscs, and a high percentage of POM (>50%). Such a diet corresponds to a nitrogen impoverished environment. N. diomedea combines both, opportunistic and non selective feeding strategies at the vents and deep-water plains, respectively.

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DIVERGENT LIFE HISTORIES OF CONGENERIC COASTAL "CAROLINIAN" DECAPOD POPULATIONS IN THE NORTHERN GULF OF MEXICO.

Warm-temperate intertidal assemblages of the Northern Gulf of Mexico were long thought to be dominated by Carolinian forms conspecific with those of the lower U.S. Atlantic coast, but recent studies document trans-Floridian isolation of warm-temperate stocks and endemism in the Gulf. While some Gulf endemics are apparent siblings of Carolinian forms, others of these now warm-temperate populations may be of tropical origins. Origins may be reflected in the degree to which reproduction is seasonally adapted in intertidal and shallow water crabs and shrimp. In Uca longisignalis, a Gulf endemic of probable temperate origins, highly seasonal ovarian development and peak egg laying coincides with seasonal peaks in vegetative food stocks. These cycles and those of the Sesarma reticulatum complex resemble cycles in related Atlantic coast warm-temperate populations. The sympatric species U. spinicarpa (of tropical origin?) exhibits less seasonal constraint in reproductive effort, as apparently do some alpheids and other shallow Gulf forms of putative tropical affinity.

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COMPLETE LARVAL DEVELOPMENT OF EURYTIUM LIMOSUM (SAY, 1818) OBTAINED IN LABORATORY, WITH A COMPARISON OF XANTHIDAE LARVAL CHARACTERS IN THE SOUTHERN AND SOUTHEASTERN BRAZILIAN COAST.

In the southern and southeastern Brazilian coast, the Xanthidae family is represented by 30 species of which only 11 present all of their larval stages completely described. Ovigerous females of E. limosum were obtained in intertidal zone, near the mangrove in Ubatuba (SP), Brazil. The experiments were performed in a climatically controlled room at  $28 \pm 1^\circ C$  and  $32\%_{100}$ . The animals were initially fed with microscopical algae (Tetraselmis sp) and rotifers (Brachionus sp) and lately with newly hatched Artemia salina nauplii. All the four larval stages and one megalopa stage were drawn and described in detail. The main morphological characters that allow the identification of the zoeae and megalopa of E. limosum are analysed with respect to the other species of Xanthidae's family from southern and southeastern Brazilian coast.