A total of 117 species of freshwater decapod crustaceans are known from Brazil. Knowledge regarding the fauna of Decapoda from inland waters in the state of Bahia, northeast Brazil, is incipient. In spite of its wide territory and rich hydrographic net, only 13 species of limnetic decapods have been reported from that state. The objective of this contribution was to survey decapod crustaceans of some hydrographic basins in southeastern Bahia. The material described herein was obtained in samplings conducted between 1997 and 2005. Voucher specimens were deposited in the carcinological collections of the Museu de Zoologia, Universidade Estadual de Santa Cruz, Ilhéus, Brazil, and Departamento de Oceanografia, Universidade Federal de Pernambuco, Recife, Brazil. A total of 13 species was collected. The carideans were represented by the atyids Atya scabra (Leach, 1815) and Potimirim potimirim (Müller, 1881) and the palaemonids Macrobrachium acanthurus (Wiegmann, 1836), M. amazonicum (Heller, 1862), M. carcinus (Linnaeus, 1758), M. heterochirus (Wiegmann, 1836), M. jelskii (Miers, 1877), M. olfersi (Wiegmann, 1836), and Palaemon (Palaemon) pandaliformis (Stimpson, 1871). The brachyurans were represented by the portunids Callinectes bocourti A. Milne-Edwards, 1879 and C. sapidus Rathbun, 1895, the trichodactylid Trichodactylus fluviatilis Latreille, 1828 and the panopeid Panopeus rugosus A. Milne-Edwards, 1881. Macrobrachium heterochirus represents a new record from Bahia, and M. amazonicum is reported for the first time in southeast Bahia. The occurrence of two extreme different forms of T. fluviatilis was observed. Form A is characterized by the frontal margin of carapace bordered by conspicuous granules, the anterolateral margin provided with developed teeth plus granules, and the posterolateral margin provided with granulation similar to that found on the front. In form B the frontal margin is smooth or has an inconspicuous granulation; the anterolateral margin is usually provided with 1-3 notches, and teeth (1-2), if present, are small; and the posterolateral margin is smooth or slightly granulated. Rev. Biol. Trop. 56 (3): 1225-1254. Epub 2008 September 30.

**Keywords**

fresh water shrimps, Caridea, Callinectes, Trichodactylus, Panopeus, Brachyura, Brazilian fauna