Abstract

This paper aims at describing the population ecology of the swimming crab Callinectes danae Smith, 1869 in one of the most productive estuaries of Brazil, the Santa Cruz Channel. These crabs were monthly collected from January to December/2009 at four stations along the channel, two in the upper and two in the lower estuary. A total of 2373 specimens of C. danae were collected during the study. Males had a larger average carapace width than non-ovigerous females (60.0 ± 15.6 mm and 52.9 ± 12.4 mm, respectively), an adaptation that gives greater protection for females during the copulation. Overall sex ratio did not differ significantly from 1:1. However, evaluating sex-ratio by sampling area, males and juveniles of both sexes occurred preferentially in the upper estuary (p < 0.05), while adult females, including ovigerous, inhabited the lower estuary, an area of major marine influence (p < 0.05). While juveniles look for estuarine waters due to the benefit from the shelter and abundance of food, ovigerous females migrate to areas of greater depth and higher salinity in order to provide a more favorable environment for embryonic and larval development and to enhance larval dispersal. Recruitment of juveniles was continuous along the year, but intensified from March to June and, with less intensity, from October to December.

Keywords

Brachyura, population biology, Santa Cruz Channel, sexual dimorphism.