



TRAP TO CONTROL THE INVASIVE SWIMMING CRAB *Charybdis hellerii* (A. MILNE-EDWARDS, 1867) (CRUSTACEA, DECAPODA, PORTUNIDAE)

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The arrival of *Charybis hellerii* in the Americas probably occurred through the larvae transport in ballast water, in ships from Mediterranean ports. On the Brazilian coast, *C. hellerii* was recorded for the first time in 1996 in the northeast region. Due to its relatively long larval life (44 days), which favors dispersal, and a generalist carnivorous diet, *C. hellerii* is characterized as a potentially invasive species to new areas and highlighted as an example of successful introduction of a marine exotic species in the Atlantic. Currently, the species is established and widely distributed along the coast of Santa Catarina and possibly expanding its distribution, which justifies the development of adequate methods for its management and control. Thus, the objective of this research was to analyze the susceptibility of the species to a trap (“pot”) previously developed to capture native crab species. During the period from February 2020 to May 2021 three sites were monitored (Farol de Cabeçudas; Ilha de Cabeçudas; and Costão da Preguiça) (26.9°S, 48.6°W) close to its southernmost limit of distribution in the western Atlantic, using between 10 and 40 traps/site. The species native crab *Menippe nodifrons* was the most numerous collected (n = 2,674), followed by *C. hellerii* (n = 513), and other species as follow: *Cronius ruber* (n = 112), *Mithrax hispidus* (n = 31), *Achelous spinimanus* (n = 16), *Arenaeus cribrarius* (n = 16), *Callinectes* sp. (n = 10) and *Panulirus laeviscauda* (n = 2). Temporally, the highest CPUE (catch per unit effort) of *C. hellerii* was recorded in winter (0.83 ind./trap), with a large number of ovigerous females in September. The locations with the highest number of individuals captured was Ilha de Cabeçudas (n = 245; CPUE = 0.41 ind./trap). Previous studies indicate that this population of *C. hellerii* is established and may act as a centre of dispersal to higher latitudes. Considering that *C. hellerii* is more abundant than the native species, these effects are ongoing and investigations of this invasive alien species (IAS) according to Convention on Biological Diversity (Decision V/8) impacts should be a priority. Although preliminary, the results obtained indicate that the trap “pot” has a good efficiency for capturing the invasive crab *C. hellerii* and this procedure used to a possible population management of this species.

Keywords: alien species, bioinvasion, capture methods, conservation, environmental impact.

Financial support: CNPq (PQ # 305957/2019-8).

Area: Ecology & Biodiversity

