

**Relative growth and morphological maturity of  
*Minuca vocator* (Herbst, 1804) (Brachyura: Ocypodidae).**

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The size at sexual maturity of brachyuran crabs allows a better understanding of their biology and has been studied for the fiddler crabs (Gelasiminae) aiming towards its conservation. This study was developed for *Minuca vocator* in a mangrove of the Itanhaém River, South coast of São Paulo state. Crabs were collected, sexed, and measured: carapace width (CW); propodus length of the major chela (PL), in males; and abdominal width (5<sup>th</sup> somite) (AW), in females. The PLxCW and AWxCW relationships were submitted to regression analysis and fitted by power function ( $Y = aX^b$ ), to obtain a breaking point between juveniles and adults (using *segmented* function in R-environment) or their proportion when overlapped (using a logistic equation). In both sexes the growth rate ('b' constant) varied with ontogeny. Male's analysis was based on 208 individuals (2.5 to 22.1mm CW), resulting in a breaking point at 8.5mm CW, showing a positive allometric growth smaller for juveniles (b=1.24) than adults (b=1.82). For females, 130 specimens were analyzed (4.3mm to 21.9mm CW), with maturity size 28.4% larger than males (10.8mm CW), but with higher positive allometric growth in juveniles (b=1.55) than adults (b=1.17). The growth pattern for these morphometric relationships was similar in comparison to other Brazilian Gelasiminae previously studied (positive allometric growth with differential ratio during ontogeny, regardless of sex). In the North coast mangroves (Ubatuba, SP), a more pristine region, the maturity size described for *M. vocator* was 30% larger than we found for Itanhaém (SP) mangrove, that have a high pressure of urbanization, with higher effects of contaminants (e.g., metals, PAHs, etc.) previously registered in other studies. Despite the latitudinal proximity, the difference between areas is probably due to the contrasting food quality, e.g., organic matter, as more pristine mangroves promote a better energy budget, which can directly influence the size at maturity.

**Key-words:** Allometry, fiddler-crab, ontogeny, mangrove, reproduction.