



## 114 - IDEAL QUADRAT SIZE FOR SAMPLING DENSITY OF *UCIDES CORDATUS* (BRACHYURA, OCYPODIDAE) IN DIFFERENT MANGROVE VEGETATIONS

Hattori, G.Y.\*<sup>1,2</sup>; Christofolletti, R.A.<sup>1,2</sup> & Pinheiro, M.A.A.<sup>1</sup>

<sup>1</sup>UNESP São Vicente, Research Group in Crustacean Biology (Crusta) –São Vicente, SP; <sup>2</sup>Programa de Pós-Graduação em Zootecnia, Área de Produção Animal, FCAV, UNESP Jaboticabal – PhD candidate – hattori@csv.unesp.br

Three mangrove areas were selected in Iguape (SP), Brazil, with different predominant vegetation (*Rhizophora mangle*, *Laguncularia racemosa* and *Avicennia schaueriana*) to test four quadrat sizes (1x1, 2x2, 3x3 and 4x4m) for sampling the density of *U. cordatus*. The quadrats were constructed with PVC pipe 1/2", and the time (cost) used from setting up until final burrows counting, besides the burrow number, was registered as well as the average and variance density. The Wiegert methods were applied to indicate the ideal quadrat size for sampling using the lower value obtained of variance and relative cost product (W). The 4x4m quadrat was considered ideal to *Avicennia* (W=23.1) and *Laguncularia* (W=17.7) areas, while in *Rhizophora* area the best quadrat size was 1x1m (W=5.7). In all areas a low variance for 4x4m quadrat size (0.38 for *Rhizophora* and 0.02 for *Laguncularia* and *Avicennia*) was observed, showing higher precision as a unit sample in the density estimative of this specie. The 1x1m quadrat size for sampling *Rhizophora* area should be used carefully, because the influence of spatial distribution in this specie may cause a high variance and lower precision in density estimative of *U. cordatus*. Therefore, the use of 4x4m quadrat with low number of replicas can overcome these problems and takes an advantage for density estimative by saving time to set up the quadrats in fieldwork, which is the main factor of rising cost in this sampling method.

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## 115 - CHANGES IN THE CRUSTACEAN COMMUNITY OF A TROPICAL ROCKY INTERTIDAL SHORE: IS THERE A PATTERN?

Hernández, C. & Alvarez, F.\*

Departamento de Zoología, Instituto de Biología, Universidad Nacional Autónoma de México, México, D.F., México; \*falvarez@servidor.unam.mx

A tropical rocky intertidal community in Montepio, southern Veracruz, Mexico, was sampled throughout a year to determine the extent of the changes in species composition and abundance. The study focused on the crustacean community, of which 49 species were identified. The community was characterized by a high species replacement rate, with 38.7% of the species appearing only once, 10% appeared twice, 16.3% were present in three different samples, and the remaining 34.7% were collected in 4 or more monthly samplings. Species diversity (H) varied constantly, while evenness remained relatively high and constant. An ordination analysis indicates that the crustacean community was dominated by the occurrence of rare species (47%). A cluster analysis, based on the Bray-Curtis similarity coefficient, shows that only a maximum of two consecutive samplings can have more than 50% similarity, reflecting the constant changes that occur in this community. When compared to the other numerically important phyla in the community, crustacean densities ranked third after annelids and mollusks. With such highly variable species composition and the absence of defined seasonal patterns, we propose that non-local processes, such as the strong winter winds ("nortes") and a long season of tropical storms, are acting upon the community preventing the establishment of species for long periods of time and maintaining the biodiversity.