

Friday, 26 May

the south. More samples are being collected to verify the significant difference found in HOM7-1.

X Valenti, W.C., and M.A.A. Pinheiro. Departamento de Biologia Aplicada, Universidade Estadual Paulista (UNESP)-Centro de Aquicultura (CAUNESP)/NEBECC-Jaboticabal (SP)-Brazil. A NEW METHOD TO COMPARE FECUNDITY DATA IN CRUSTACEAN DECAPODS ELIMINATING THE SIZE EFFECT.

Fecundity generally increases with animal size in crustacean decapods. Therefore, this comparison parameter among samples or populations must be employed with caution. It will be correct if the animal size compositions are equal, but it generally is not true. So, it is interesting to apply a mathematical procedure to eliminate animal size effect on fecundity. It has been found that the relationship between fecundity (F) and a linear dimension or weight (x) in crustacean decapods can adequately be described by a linear model ( $F=a+b.x$ ) or by a curve ( $F=a.x^b$ ). Rearranging these expressions we have:  $(F-a)/x = b = F'$  and  $F/x^b = a = F'$ . The relative fecundity  $F'$  is a constant independent of animal size and can easily be calculated from the size/fecundity relationship. The relative mean fecundity of a population or sample ( $F'$  is estimated as,

$$F' = \frac{1}{n} \sum_{i=1}^n \frac{(F_i - a)}{x_i} \quad \text{or} \quad F' = \frac{1}{n} \sum_{i=1}^n \frac{F_i}{x_i^b} \quad \text{where } n = \text{number of females analyzed}$$

This parameter can be used with great advantage for comparison among crustacean populations promoting a decrease on sample variance.

White, D., and R.C. Brusca. Grice Marine Biological Laboratory, University of Charleston, South Carolina. A PRELIMINARY ASSESSMENT OF ISOPOD CRUSTACEAN FAUNAL COMPOSITION ON A SILT-STRESSED REEF ON THE CARIBBEAN COAST OF COSTA RICA.

Cahuita Coral Reef National Park lies at latitude 9°45'N, 82°49'W on the Caribbean coast of Costa Rica. The park encloses a 4km long barrier reef and adjacent lagoon, and borders a lowland tropical swamp forest. The reef lagoon environment is heavily silted year round due to runoff from coastal and upland deforestation and resulting soil erosion. Isopods were collected from the principal habitats (live coral, coral rubble, algae) inshore from the reef crest during the dry season (December) and rainy season (August). Isopod assemblage structure (species composition and life-history) data at the Cahuita site is compared among habitats and to that of other, non-silted sites in the Caribbean.