

GENETIC AND MORPHOLOGICAL DIFFERENTIATION OF THE CRAB *DISSODACTYLUS PRIMITIVUS*, ECTOPARASITE OF TWO SYMPATRIC ECHINOIDS

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At Discovery Bay (Jamaica), *Dissodactylus primitivus* is a parasitic crab of two urchin species, *Meoma ventricosa* and *Plagiobrissus grandis*. *D. primitivus* uses asymmetrically its sympatric hosts. Indeed, all post-metamorphic stages (juveniles, adults) are present on *M. ventricosa* but only adults are found on *P. grandis*. Furthermore, the fecundity of female crabs varies between occupied hosts: it is greater on *P. grandis* than on *M. ventricosa*. These urchins present also great differences in morphology and behavior. These characteristics raise the question of the specialization of crabs suiting a particular host species. The aim of this work is to test the genetic differentiation (microsatellite analysis) and the morphological differentiation (shape analysis) between crabs originating from different hosts. Our results indicate the lack of genetic differentiation between crabs parasitizing *M. ventricosa* and *P. grandis*. In addition, genetic homogeneity between infra-populations (occupying one individual host) of crabs has also been detected, and is probably explained by the mobility of adults ("host-switching behaviour"). A morphological differentiation linked to host species and sampling year has been detected. This phenotypic plasticity is presumably related to differences in environmental pressures met by the crabs on their two host-species. In this context (no genetic differentiation), *P. grandis* could appear as an alternate host.