



Cross amplification of *S. paramamosain* microsatellites for use in population structure studies of *S. serrata*

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Abstract: Microsatellites are established means for determining population structure of marine organisms. Development of these markers involve the study of the target organism's genome, determination of working primers for amplification, characterization of successfully amplified markers – all prior to the actual study of the organisms themselves. Primarily species-specific, microsatellites have been known to cross-amplify in closely related organisms and the testing of markers that have been used in these relatives can help save time and other resources.

Thirteen microsatellite markers used for population structure studies of *Scylla paramamosain*, the green mud crab, was tested for cross amplification in *S. serrata*, the king mud crab. Six out of the thirteen were tested and five were able to cross-amplify using Shuelke's nested method of amplification. Only two were consistently labelled with the fluorescent marker. Currently, the amplified sequences are being screened for null alleles, and Hardy-Weinberg equilibrium is being checked.

S. serrata is a highly profitable species due to its capacity to grow bigger and faster compared to other mud crab species. Culturing of mud crabs in the Philippines is still reliant on capturing juveniles in the wild and a proper understanding of its population structure Philippines would help in the development of better management systems for this marine resource.

Key Words: population structure; microsatellites; mud crabs