

UNDERSTANDING THE UTILITY OF GENETIC MARKERS WITH REFERENCE TO MICROSATELLITE DNA IN FISH*

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In a community of organisms of a certain species, individuals of the community bear variations in their DNA due to a large number of slightly dissimilar ancestors. Genetic marker is a tool that allows a scientist to detect the presence and extent of this genetic variation among individuals or between alleles in a particular segment of DNA. Microsatellite DNA is a kind of co-dominant marker which allows the analysis of only a locus per experiment and the allelic variations of that locus can be distinguished. In individuals of a particular fish species or any higher organism, numerous alleles usually occur at a microsatellite locus, with each allele differing in the number of repeats of the particular microsatellite repeat motif. Polymorphic microsatellite loci have been applied to the analysis of genetic diversity, population genetic structure and genome mapping in fishes.
