



Isolation and characterization of novel microsatellite markers for molecular genetic diversity in *Siganus fuscescens*

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ABSTRACT. The rabbitfish *Siganus fuscescens* is an economically valuable species that is widely distributed throughout the estuaries, intertidal, and offshore coasts of the Indo-Pacific and eastern Mediterranean. Ten novel microsatellite loci from the genome of *S. fuscescens* were developed using the fast isolation protocol with amplified fragment length polymorphism of sequences containing repeats. Polymorphisms in these 10 microsatellite markers were determined from 32 wild individuals. The number of alleles per locus and the polymorphism information content ranged from 2 to 5 and from 0.059 to 0.668, respectively. The observed and expected heterozygosities varied from 0.063 to 0.781 and from 0.062 to 0.731, respectively. Although 1 locus (LZY-X7, $P < 0.005$) showed significant deviation from the Hardy-Weinberg equilibrium, no deviations were detected in the other 9 loci. These microsatellite loci may be useful for further population genetic studies, conservation studies, population structure assessment, and linkage map construction of *S. fuscescens*.

Key words: Genetic markers; Microsatellite; *Siganus fuscescens*; Fragment length polymorphism of sequences containing repeats