



## Isolation and characterization of polymorphic microsatellite markers from *Coilia ectenes*

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**ABSTRACT.** *Coilia ectenes* (Jordan and Seale 1905) is an important anadromous species that is an important resource at risk of extinction because of over-fishing, pollution, and coastal construction. To evaluate the genetic diversity of *C. ectenes* for use in breeding programs, elite microsatellite-enriched libraries were constructed and novel microsatellite markers were developed, and applied to genetically detect wild populations. Out of 92 randomly selected and sequenced clones, 89 contained a CA or GA repeat motif. Twenty-two pairs of primers were designed to investigate the polymorphism and genetic structure of a wild population collected from the Yellow River estuary, China. It was found that 2 loci were monomorphic and 20 loci were polymorphic. The number of alleles per polymorphic loci ranged from 3 to 13, with an average of 7.9. The expected heterozygosity per locus ranged from 0.05 to 0.89, with an average of 0.68. The isolated polymorphic markers are expected to be of use in future genetic breeding programs for *C. ectenes*,

and in the assessment of genetic variation within this species.

**Key words:** *Coilia ectenes*; Microsatellite marker; Genetic diversity