



## Evaluation of genetic diversity in *Pampus argenteus* using SSR markers

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**ABSTRACT.** In order to evaluate the germplasm resources of *Pampus argenteus* silver pomfret, the genetic diversity and population structure of 132 silver pomfret samples collected from the three regions (the East China Sea, the Yellow Sea and the Bohai Sea) were examined using 13 polymorphic microsatellite loci. Results indicated a high level of genetic diversity. The total number of observed alleles was 68, the mean allele number was 5.46 per locus, and the mean number of effective alleles was 4.91. The polymorphism information content ranged from 0.58 to 0.88. For the 13 polymorphic microsatellite loci, the results of analysis of molecular variance indicated that 92.45% of the genetic variation was contained within populations. Unweighted pair group method with arithmetic mean cluster analysis revealed significant genealogical branches or clusters corresponding to sampling localities. We concluded that there was high genetic diversity in these silver pomfret populations, and that this diversity was related to the complex environment. These results would contribute to important knowledge of genetic diversity and population structure, which would be crucial for establishing appropriate fishery management stocks for this species.

**Key words:** *Pampus argenteus*; Microsatellite marker; Genetic diversity; Population structure