



# Rapid development of polymorphic microsatellite markers for the Amur sturgeon (*Acipenser schrenckii*) using next-generation sequencing technology

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**ABSTRACT.** Anthropogenic activities have seriously impacted wild resources of the Amur sturgeon, *Acipenser schrenckii*, and more information on local and regional population genetic structure is required to aid the conservation of this species. In this study, we report the development of 12 novel polymorphic microsatellite loci using next-generation sequencing technology, and the genotyping of 24 individuals collected from a sturgeon farm. The results show that the mean number of observed alleles per locus is 6.6 (ranging from 2 to 17). Observed and expected heterozygosity values ranged from 0 to 0.958 and from 0.508 to 0.940, respectively. Not a single locus showed significant departure

from Hardy-Weinberg equilibrium and no linkage disequilibrium was observed among any pairwise loci. These highly informative microsatellite markers will be useful for genetic diversity and population structure analyses of *A. schrenckii* and other species of this genus.

**Key words:** Microsatellite; Polymorphism; Genetic diversity; *Acipenser schrenckii*; Next-generation sequencing