



Development and characterization of polymorphic microsatellite markers for Chinese raccoon dog (*Nyctereutes procyonoides procyonoides*)

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ABSTRACT. Chinese raccoon dog (*Nyctereutes procyonoides procyonoides*) is one of the most important fur-bearing animal species. Information about the genetic background of farmed Chinese raccoon dogs is limited. In this study, 17 polymorphic microsatellite markers were isolated and identified from an (AC)_n-microsatellite-enriched library of Chinese raccoon dogs. The number of alleles per locus ranged from 2 to 8 based on 48 individuals tested. The expected and observed heterozygosity and polymorphism information content per locus ranged from 0.383 to 0.8378, 0.3200 to 0.8696, and 0.3047 to 0.7947, respectively. Cross-species amplification of these loci in 2 other Canidae species indicated that 9 and 11 of these loci could also be amplified successfully in the arctic and silver fox, respectively. These microsatellite loci developed in the present report will provide

useful tools for population genetic studies, individual identification, and phylogenetic analysis in the Chinese raccoon dog and other Canidae species.

Key words: Microsatellite markers; *Nyctereutes procyonoides procyonoides*; Cross-amplification