



# Polymorphic microsatellite loci isolated from *Cervus unicolor* (Cervidae) show inbreeding in a domesticated population of Taiwan Sambar deer

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**ABSTRACT.** Primers for eight microsatellites were developed; they successfully amplified DNA from 20 domesticated Formosan Sambar deer (*Cervus unicolor swinhoei*). All loci were polymorphic, with 10-19 alleles per locus. The average observed heterozygosity across loci and samples was 0.310, ranging from 0 to 0.750 at each locus. All loci but one, CU18, deviated from Hardy-Weinberg equilibrium due to excessive homozygosity in these domesticated broodstocks,

reflecting inbreeding. These microsatellite loci will be useful, not only for assessment of population structure and genetic variability, but also for conservation of wild deer populations in Taiwan.

**Key words:** *Cervus unicolor*; Conservation; Microsatellite; PCR-based isolation of microsatellite arrays; RAPD-PCR enrichment