

Estimation of inbreeding coefficient in Rusa Deer (*Cervus timorensis*) using microsatellite loci in Malaysia.

ABSTRACT

To estimate inbreeding coefficient in a small and closed population of Rusa deer (*Cervus timorensis*) in Malaysia, 38 individual mares were typed from blood samples at thirty nine sets of primer pairs for bovine and reindeer microsatellite loci. The mean number of alleles was 6.77 ± 4.49 per polymorphic loci. The gene diversity over all individuals and loci was 0.52. Departure from Hardy-Weinberg proportions was tested only for two loci (BMS789, BM121). The mean heterozygosity was 0.51 ± 0.30 . The associated estimates of FIS was 0.04 ranging between -0.79 and 0.61 . The FIS estimate, as well as the mean intraindividual kinship values, was quite low, indicating that the studied population does not suffer from ill effects of inbreeding.

Keyword: Inbreeding coefficient; Rusa deer; Microsatellite loci.