

Phylogenetic relationships of Malayan gaur with other species of the genus *Bos* based on cytochrome *b* gene DNA sequences

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ABSTRACT. The Malayan gaur (*Bos gaurus hubbacki*) is one of the three subspecies of gaurs that can be found in Malaysia. We examined the phylogenetic relationships of this subspecies with other species of the genus *Bos* (*B. javanicus*, *B. indicus*, *B. taurus*, and *B. grunniens*). The sequence of a key gene, cytochrome *b*, was compared among 20 *Bos* species and the bongo antelope, used as an outgroup. Phylogenetic reconstruction was employed using neighbor joining and maximum parsimony in PAUP and Bayesian inference in MrBayes 3.1. All tree topologies indicated that the Malayan gaur is in its own monophyletic clade, distinct from other species of the genus *Bos*. We also found significant branching differences in the tree topologies between wild and domestic cattle.

Key words: Malayan gaur; *Bos gaurus hubbacki*; Phylogenetics; Wild cattle; Cytochrome *b* gene