# Cross-species amplification of microsatellite markers in Malayan tapir (*Tapirus indicus*)

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Malayan tapir (*Tapirus indicus*) is listed as endangered species by IUCN due to population decline caused by habitat loss and fragmentation, and increasing hunting pressure throughout its ranges. Malayan tapir is the only one species of genus Tapiridae, distributed in the tropical rain forest of Southeast Asia. Tapirs are known as the key actors in forest dynamics as they are functionally important seed dispersers and seed predators. Despite their endangered status and functional role in ecosystems, little information is known about their social structure, mating system, population structure and dispersal pattern which are required for better conservation and management. Studies through traditional field methods are extremely difficult because tapirs are shy, cryptic, nocturnal, and prefer to inhabit deep tropical forest. Molecular genetics techniques now provide an alternative way to resolve ecological questions related to tapir. In this study, we tested cross-species amplification of 12 microsatellite markers designed for Lowland tapir (N = 9) and Bairdii tapir (N = 3) in Malayan tapir using fecal DNA. Result showed that all microsatellite markers failed to amplify in Malayan tapir. Poor quality and quantity of DNA, co-purification of PCR inhibitors, unsuitability of DNA extraction and preservation method and high genetic divergence are some of the factors contributing to this result.

**Keywords:** Malayan tapir, *Tapirus indicus*, microsatellite markers, non-invasive techniques, cross-species amplification