

Camera-trapping survey of mammals in and around Imbak Canyon conservation area in Sabah, Malaysian Borneo

Abstract

As part of an effort to develop a comprehensive management plan for the Imbak Canyon Conservation Area in central Sabah, Malaysian Borneo, we conducted a rapid but extensive mammal survey using camera-trapping techniques. We gathered baseline data on mammal species richness and community composition, as well as information on activity patterns for some mammal species. Eighty motion-triggered digital camera-traps were set in the primary and logged forests in and around the Imbak Canyon. The total accumulated camera-trapping effort of 1,436 camera trap-nights yielded 1,641 digital photographs of mammals represented by 27 species in 14 families and five orders. The species photo-captured included common species, as well as rare and elusive species and species that are of high conservation value, such as the Sunda clouded leopard, *Neofelis diardi* and orang utan, *Pongo pygmaeus*. Our results indicated that the primary forest of the Imbak Canyon and its surrounding disturbed forests are important habitats for mammal conservation. Of particular importance are the carnivores, with 13 species recorded. Game animals, such as bearded pig, *Sus barbatus*, muntjac, *Muntiacus* spp., and mousedeer, *Tragulus* spp., were found to be among the most frequently photo-captured and the most widespread species. The activity patterns of mammals investigated did not show that they were affected by human activities. Even so, we found substantial evidence of poaching and illegal collection of the aromatic gaharu tree resin (*Aquilaria* spp.) in the surveyed areas, raising management concerns and highlighting the urgent need for law enforcement activities in the area.