

Horizontal habitat preference of three sympatric Paradoxurinae civet species in a small area in Sabah, Malaysian Borneo

Abstract

We investigated the horizontal habitat use of three sympatric Paradoxurinae species, the common palm civet *Paradoxurus hermaphroditus*, the small-toothed palm civet *Arctogalidia trivirgata* and the binturong *Arctictis binturong*, occurring within a small area in a lowland dipterocarp rainforest in Sabah, Malaysian Borneo. We evaluated their preference for forests near open-canopy areas (forest edge habitat) or more mature interior forests (interior-forest habitat) by tracking radio-collared civets in their activity and inactivity periods. We demonstrated that all three Paradoxurinae species occurred in the same area, and extensive range overlap indicated lack of interspecific territoriality. The binturong preferred neither forest edge nor interior-forest habitats. Meanwhile, both the common palm civet and the small-toothed palm civet showed a similar preference for forest edge habitats. Food distribution may affect their habitat use. We could not find clear habitat segregation among the three sympatric Paradoxurinae species, but vertical habitat use may also affect their coexistence. Further effort is needed to elucidate both the horizontal and vertical habitat segregation of sympatric Paradoxurinae species.