Predicted distribution of the yellow-throated marten Martes flavigula (Mammalia: Carnivora: Mustelidae) on Borneo

Abstract

The yellow-throated marten Martes flavigula is a wide-ranging species across much of Asia. It is active mainly during the day, is semi-arboreal and has an omnivorous diet. On Borneo, it has a wide elevation range, from coastal lowland to lower montane habitat of 1700 m a.s.l. Records from camera-trapping and other wildlife surveys imply a widespread distribution, but the species is encountered less frequently than in many other parts of its global range. We collected a total of 195 occurrence records from all political units of Borneo except South Kalimantan. To reduce possibly confounding effects of sampling bias on habitat suitability we used 56 records in a Balanced Model and 94 records in a Spatial Filtering Model. Respondents' opinions on habitat preference showed large variation, except for lowland and upland dipterocarp forests, which were consistently perceived as highly suitable; disturbed areas such as burnt forests and bare areas were perceived to be less favourable. The habitat suitability model predicted that the yellow-throated marten is widespread within Borneo, likely to occur in mosaics of lowland and upland forests, including old plantations and active logging areas; but unlikely to use young plantations and crops, perhaps including oil palm plantations. The effects of logging on yellow-throated marten are not well understood, yet the species's population size on Borneo will depend on how tree plantations and logging concessions are managed and harvested. More surveys above about 1200 m a.s.l., where information is still limited, would enable more confident habitat assessments. Further research could determine if the Bornean subspecies, M. f. saba, could be a cryptic species.