Predicted distribution of the marbled cat Pardofelis marmorata (Mammalia: Carnivora: Felidae) on Borneo

Abstract

Little is known about the ecology of the rare marbled cat Pardofelis marmorata on Borneo. In addition, the little information that is available on the species often comes from incidental sightings. Here we use the MaxEnt algorithm to produce a habitat suitability map for this species based on a compilation of existing data. We collected 105 marbled cat occurrence records for Borneo, of which 27 (Balanced Model) or 69 (Spatial Filtering Model) were used to estimate potential habitat suitability. The resulting relative habitat suitability map showed key conservation areas in Borneo. According to these results it appears that the most suitable habitats for marbled cat are lowland forests, but these forests are most threatened by deforestation and other anthropogenic activities. It is imperative to develop appropriate conservation strategies for the marbled cat on Borneo, including long-term research and monitoring, reduction of human disturbances in lowland forests, increased data-sharing and research networking, and stakeholder involvement for conservation planning and activities.