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Mammals in an Oil Palm Dominated Landscape

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The Stability of Altered Forest Ecosystems (SAFE) Project has been running since 2011 in the state of Sabah, Malaysian Borneo. Over the past ten years we have conducted 19 studies that have generated data that can be used to compare the ecology of non-flying mammals in forest areas with those in oil palm plantations. This paper summarises information on the diversity, abundance and behaviour of these mammals in oil palm dominated landscapes. The studies have robustly demonstrated a dramatic decline in diversity of mammals in oil palm plantations compared to logged forests, with approximately 50 per cent of species completely disappearing. A small subset of species otherwise found in tropical forests can survive in, and apparently adapt to, this new habitat to some extent. It is also shown that there is very little movement of native rodents from forests into plantations. Our results highlight the importance of remnant forest patches, even heavily logged patches and riparian buffers in the agricultural landscape, and demonstrate the importance of maintaining the structural complexity of these forest remnants to enhance their conservation value for native mammals. In view of the findings, several management recommendations are made derived from the practical applications of our research.

Keywords: Oil palm, biodiversity, mammals, Borneo.