

Selective logging shows no impact on the dietary breadth of a generalist bat species: The fawn leaf-nosed bat (*Hipposideros cervinus*)

ABSTRACT

Logging activities degrade forest habitats across large areas of the tropics, but the impacts on trophic interactions that underpin forest ecosystems are poorly understood. DNA metabarcoding provides an invaluable tool to investigate such interactions, allowing analysis at a far greater scale and resolution than has previously been possible. We analysed the diet of the insectivorous fawn leaf-nosed bat *Hipposideros cervinus* across a forest disturbance gradient in Borneo, using a dataset of ecological interactions from an unprecedented number of bat-derived faecal samples. Bats predominantly consumed insects from the orders Lepidoptera, Diptera, Blattodea, and Coleoptera, and the taxonomic composition of their diet remained relatively consistent across sites regardless of logging disturbance. There was little difference in the richness of prey consumed per-bat in each logging treatment, indicating potential resilience of this species to habitat degradation. In fact, bats consumed a high richness of prey items, and intensive sampling is needed to reliably compare feeding ecology over multiple sites. Multiple bioinformatic parameters were used, to assess how they altered our perception of sampling completeness. While parameter choice altered estimates of completeness, a very high sampling effort was always required to detect the entire prey community.