

## **Microhabitat use of small non-flying mammals in a lower montane forest fragment in the Central Cordillera, Luzon Island Philippines**

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Luzon Island in the Philippines is home to a diverse set of small mammals with 45 murid rodents endemic to the Island. Previous studies focused more on the general response of species to varying levels of habitat disturbances with very limited studies on microhabitat use. Patterns of microhabitat use of a community of endemic and exotic small non-flying mammals were investigated on a fragment of lower montane forest by employing live trapping techniques from February to April 2016. Canonical Correspondence Analysis was used to analyze patterns of habitat use using physical and vegetation variables, and capture data of six small mammal species. Two of the three endemic species, *A. abrae* and *R. everetii* were strongly associated with dense cover of broad-leaf trees while introduced species, *R. exulans*, *R. tanezumi* and *S. murinus*, preferred areas with dense cover of low-lying grass and forbs. The habitat characteristics associated with endemic and exotic species could be divided into montane forest habitats and open habitats, respectively, suggesting a macrohabitat-level preference. The preferences of two endemic species, *A. abrae* and *R. everetii*, were distinguished by difference in tree and forbs cover density, with the former associated with higher tree and forbs cover than the latter. In contrast, the third endemic species, *A. musculus*, preferred open areas with dense cover of the forb *Eupatorium*. Introduced species appeared to select microhabitats based on ground steepness and wetness, and tree density. *R. exulans* was more associated with steeper and higher in tree cover areas than *R. tanezumi*. In contrast, *S. murinus* preferred moderate slope and wet ground areas. These results suggest microhabitat level preference. However, these preliminary findings need to be validated by additional studies with larger sample sizes.