

Home ranging behavior of the Philippine tarsier (*Tarsius syrichta* Linnaeus, 1758) in Initao-Libertad Protected Landscape and Seascape, Misamis Oriental, Philippines: Implications for conservation

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Abstract

Ecological studies on free-ranging *Tarsius syrichta* have focused on the Bohol and Leyte populations only. This study examined whether the home range of *T. syrichta* in a small forest fragment in Mindanao is affected by the distribution and abundance of arthropod prey items in various sampling zones. This study was conducted over two sampling periods, covering the high rainfall period (February to March 2017) and the low rainfall period (October 2017). The home range of four male and two female *T. syrichta* were estimated using the Minimum Convex Polygon (MCP) method, based on radiotracking data. In general, males had significantly larger home ranges (mean = 4.28 ha) than females (mean = 1.29 ha). Overlap between home ranges was only spatial and not temporal, which strongly indicates a solitary foraging habit. Home range averaged around 3.04 ha during high rainfall period and around 2.48 ha during low rainfall period, although this difference was statistically insignificant. In arthropod sampling, nine orders were identified as prey items of tarsiers: eight insect orders (Hymenoptera, Coleoptera, Blattodea, Orthoptera, Hemiptera, Phasmatodea and Mantodea) while one arachnid order (Aranea). The most abundant arthropod prey items belonged to Hymenoptera, which was dominated by ants. Variations in prey item abundance between sampling zones and sampling periods was found to be insignificant, indicating a homogenous distribution and a consistent availability of arthropod prey items. Tarsiers' home ranges tended to be larger during periods of low prey item abundance and smaller during periods of high prey item abundance. The results of this study showed that a tarsier population can thrive even in a small forest fragment, highlighting the importance of including forest fragments in conservation efforts.