Abstract

Measurements of species richness and species abundance can have important implications for regulations and conservation. This study investigated species richness and abundance of butterflies in the family Nymphalidae at undisturbed, and disturbed habitats in Tirimbina Biological Reserve and Nogal Private Reserve, Sarapiquí, Costa Rica. Traps baited with rotten banana were placed in the canopy and the understory of three habitats: within mature forest, at a river/forest border, and at a banana plantation/forest border. In total, 71 species and 487 individuals were caught and identified during May and June 2011 and May 2013. Species richness and species abundance were found to increase significantly at perturbed habitats (p<0.0001, p<0.0001, respectively). The edge effect, in which species richness and abundance increase due to greater complementary resources from different habitats, could be one possible explanation for increased species richness and abundance. Rev. Biol. Trop. 62 (3): 919-928. Epub 2014 September 01.

Keywords
Butterflies, disturbance effects, edge effect, nymphalidae, species abundance, species diversity, species richness, Chiquita Nature and Community Project, Nogal Private Reserve.