

**ABSTRACT**  
**DIVERSITY OF GROUND-DWELLING ANTS AND ITS**  
**POSSIBLE USE AS INDICATOR OF ECOSYSTEM DISTURBANCE IN**  
**MT. ISAROG NATIONAL PARK, NAGA CITY**

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Ants, among other organisms, play an important role in ecosystem disturbance assessment. They are considered as good bioindicator of ecosystem restoration or disturbance due to their presence and abundance. This study utilized the diversity of ant species to determine effects of forest ecosystem disturbance on the presence or absence of ant species. The premise is that the undisturbed area has more species of ants than the disturbed area which is farmed with abaca and small scale vegetable farming. The study site is inside the Mt. Isarog Natural Park, Naga City, Philippines. The methods used for ant collection were pitfall trapping, soil sifting and leaf litter sifting. There is a total of 226 species belonging to 53 genera under nine (9) subfamilies in Mt. Isarog. There are 169 species of ants from the disturbed area and 176 species from the undisturbed area. Alpha diversity using Fisher's alpha showed a slightly high diversity in the undisturbed site over the disturbed site across all collection methods. Brillouin and Simpson's indices also showed trends of slightly high diversity of ants species in the undisturbed area than the disturbed area but using t-test, the differences are not significant to conclude that the undisturbed area has more diverse ant species. This is due to the wide variety of food sources, nest sites and complex microhabitat structures found in both areas. Abaca and small scale vegetable farming in the disturbed area has no perceptible impact on the ant diversity.