The Diversity of Bats in Rajah Sikatuna Protected Landscape within Sierra Bullones, Bohol, Philippines

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by:

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Approval Sheet

This thesis entitled THE DIVERSITY OF BATS IN RAJAH SIKATUNA PROTECTED LANDSCAPE WITHIN SIERRA BULLONES, BOHOL, PHILIPPINES, prepared and submitted by MRS. LYDIA T. JAMORA in partial fulfillment of the requirements for the degree of MASTER OF SCIENCE IN BIOLOGY has been examined and is recommended for acceptance and approval FOR ORAL EXAMINATION.

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Abstract

The study aimed to determine the diversity of bats in Rajah Sikatuna Protected Landscape within Sierra Bullones, Bohol, Philippines. Two sampling stations, the agro-ecosystem and the forest ecosystem were established in each of the six sampling sites namely, barangays Nan-od, Canlangit, Casilay, Danicop, San Isidro, and Bugsoc that compose Rajah Sikatuna Protected Landscape.

Bats were collected through mist nets and were identified. Habitat description adapted from Heaney, et al (1998) and species composition were obtained. The diversity, relative abundance, species richness, evenness and endemicity were computed and interpreted.

Of the 17 bat species recorded, nine were fruit bats and eight were insect bats. The six barangays vary in species composition, diversity, species richness, evenness and relative abundance. *Cynopterus brachyotis*, a fruit bat, was common in both the agro-ecosystem and forest ecosystem sampling stations of the six barangays. Except for barangay Bugsoc, it was relatively abundant in the agro-ecosystem of the rest of the barangays. *Rousettus amplexicaudatus* and *Eonycteris robusta*, in addition to *Cynopterus brachyotis*, were the common species in the agro-ecosystem sampling stations in all six barangays. In the forest ecosystem, *Ptenochirus jagori* was common to the six barangays. Species of insect bats were collected in the barangays except in barangay Danicop.

Species richness was highest in the agro-ecosystem of barangay San Isidro and in the forest ecosystem of barangay Canlangit. Barangay Bugsoc, however, had the highest species richness when both agro-ecosystem and forest ecosystem sampling stations were treated as a whole. Lastly, barangay Bugsoc had the most diverse species of bats among the six barangays.

As for the relative abundance, it was barangay Bugsoc that had the highest relative abundance. Among the 17 species identified, six were endemic, two of which were insect bats.

Barangays Canlangit and Danicop had the most even distribution of bat species in the agro-ecosystem and forest ecosystem sampling stations, respectively. In considering both sampling stations, barangay Danicop had the most even or equitable distribution of bat species.

Although, both barangays Bugsoc and Nan-od had an endemicity of 40%, which is the highest value among all barangays, this result is still considered low. This is based on the percentage of collected bats in Sierra Bullones to the Philippine data (Heaney, et. al, 1987).

The results suggest that some barangays can still support a variety of bat fauna while some need to be strictly regulated.

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