ABSTRACT

The act of pollination is the most important and essential phenomena of plant by which the sexual reproduction is possible. The insects that visit flowers belong to the order Hymenoptera, Lepidoptera, Diptera, Coleoptera, Thysanoptera and Hemiptera.

Objectives of the study-To study the diversity of pollinating insects, To study the ecology of the pollinating insects, To study their relationship with plants. Nambor Wild Life Sanctuary is a protected area located at Golaghat and Karbi Anglong districts of Assam in India covering an area of 37 sq.km. The data were collected using transect methods of Pollard et al. (1975) and Pollard (1977) with some modifications. Study revealed the presence of 137 species of insects belonging to 4 orders. Of the total 137 species, the highest number of species were recorded under order Lepidoptera (Butterflies and Moths) followed by Hymenoptera (Bees, Wasps, Ants), Diptera and Thysanoptera. Under order Lepidoptera, 5 families of butterflies were found and one family of Moth was found. Under hymenoptera,3 families were found and one family each of Diptera and Thysanoptera. Of the total Lepidopteran species the greatest number of 68 species were recorded under Nymphalidae family, followed by Pieridae 15 species, Papilionidae 14 species, Hesperiidae 13 species, Lycaenidae 13 species and 2 species of Moth. Of the total hymenopteran species Apidae-5 species, Fomicidae (Ants)-2 species, Sphecidae (Wasps)-2 species. Of the Dipteran species 2 Syrphidae and of the
One Thysanopteran species-1 Thripidae species was found. Comparision of diversity between wet season of habitat A and habitat B shows that, habitat A(wet) was more diverse than habitat B(wet) at 5% level(habitat A(wet): H' = 4.348, p = 0.207013;habitat B(wet): H'=3.182, p = 0.989151.Δ=-1.1657).Comparision of diversity between dry season of habitat A and habitat B shows that, habitat A(dry) was more diverse than habitat B(dry) at 5% level(habitat A(dry):H' = 4.404, p= 0.600815;habitat B(dry): H' =3.356 , p = 0.827443. Δ=-1.04866). The analysis of diversity ordering(using Right Tailed sum methods) at different habitats shows that, the diversity was different at each habitat in which the highest diversity was found in habitat A(wet) and habitat A(dry). (see Lamshead et al.,1983).The log-ranked proportional abundance of the species in habitat A(wet) was higher than habitat A(dry).The log-ranked proportional abundance of the species in habitat B(wet) was also higher than habitat B(dry).The percentage cumulative abundance plotted against log species rank for comparing diversity between samples habitat A(wet and dry) and habitat B(wet and dry)) also indicating the differences of diversity. Total 59 species of flowering plants were encountered during the study period.31 families of flowering plants were found to be used by pollinating insects as visiting plants.