

Project Update: July 2014

A total of 67 species were recorded belonging to five families, namely Lycaenidae, Nymphalidae, Papilionidae, Pieridae and Hesperidae. This makes to a total of 158 species (67+55+36 species including previous sampling during January – March 2014). Four new records of butterfly for Bhutan was added from the current study, viz., brown awl (*Badamia exclamationis* - Fabricius), coon (*Sancus folio* – Mabille), common spotted flat (*Celaenorrhinus leucocera* – Kollar), and Himalayan dart (*Potanthus dara* – Kollar).

Out of five families, Nymphalidae had highest number of species (33%) followed by Lycaenidae (23%), Pieridae (19%), Papilionidae (13%) and the lowest was Hesperidae (12%) in the study area. This could be due to Nymphalidae being the largest family with highest numbers of sub-families, and Hesperidae having the lowest number of species. Around 6,000 and 3,500 species of Nymphalidae and Hesperidae are found worldwide respectively.

We tried to study among the different habitat types: Habitats differed in the butterfly species diversity and the shrub land had the highest diversity ($H' = 3.47$), followed by river beds ($H' = 3.35$), crop fields ($H' = 3.33$), closed canopy ($H' = 2.92$) and the lowest along the roads ($H' = 2.74$). Roads and closed canopy had comparatively less diversity as the habitats were not getting enough sunlight conversely forest patches exposed to sunlight were found to have high. While, bush brown dominated the closed canopy as expected as they like shady habitats due to their cryptic canopy behaviour.

Teams have encountered that butterfly species diversity and density peak at low and decline towards mid to high elevations.



Left: Brown awl (*Badamia exclamationis*). Middle: coon (*Sancus folio*). Right: Data collection during sampling.