

Long-term population fluctuation of flower-visiting leaf beetles (Chrysomelidae) in a tropical lowland dipterocarp forest, Sarawak, Malaysia

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A general flowering occurred irregularly at intervals of 5 year on average in lowland mixed dipterocarp forests. During the general flowering, many canopy tree species produce a large number of flowers and a large amount of nectar and pollen, and various kinds of arthropods utilize these resources drastically increased. These supranual and drastic resource-changes may affect the life cycles of arthropods visiting flowers and fruits.

In Lambir Hills National Park, a giant honey bee, *Aphis dorsata* collected pollen and nectar during the general flowering in 1996. A number of individuals of light-attracted *A. dorsata* increased during the general flowering. In the non-flowering period, *A. dorsata* were rarely observed there. We also observed that some Chrysomelid beetles visited *Shorea*, a dominant group of Dipterocarpaceae there. Moreover, the former pollination experiments showed some beetles (Chrysomelidae and Curculionidae) contributed to pollination of one of the species of *Shorea*, *Shorea parvifolia*.

Did the flower-visiting Chrysomelid beetles increase during the general flowering? If they depend on food resources during the general flowering period, what population fluctuation patterns did they have? We have analyzed the data collected from 1992 to 1999 using light traps in Lambir Hills National Park to reveal their population fluctuation patterns. We will discuss their food resources during the non-flowering period.