



WRL reference	M04 D04
Module	M04 Ecosystems – Tropical Forests
Data set	D04 Abundance of bat feeding guilds in the Iwokrama Forest, Guyana

Research questions:

1. Which feeding guilds are represented by the greatest numbers of bats in the Iwokrama Forest?
2. How does the abundance of bat feeding guilds vary between sites across the Iwokrama Forest?

IF YOU OPEN THE FILE “M04 D04 COMPLETED.xls” YOU WILL SEE WHAT THE FULLY ANALYSED AND PLOTTED DATA SET SHOULD LOOK LIKE

Answers/discussions to research questions:

1. Frugivorous bats comprise the majority of the bat community in the Iwokrama Forest, with insectivores the next most common feeding guild, followed by nectarivores, omnivores, and finally sanguinivores and carnivores. This suggests that fruits are a more abundant food source in the Iwokrama forest, and therefore supports higher numbers of animals that feed on that resource.
2. There is a large variation in the abundance of bats from each feeding guild between sites. At every site however, frugivores are the most common guild, with insectivores the next most abundant.

The remaining guilds are consistently much less abundant across all sites.

- Rock Landing, the never flooded savannah edge forest type, contained the highest number of bats from all feeding guilds.
- Canopy Walkway, the never flooded Dakama forest type (dominated by the plant species Sandwith - *Dimorphandra conjugata*), is home to the lowest numbers of bats in general, however frugivores are still the most abundant.
- The remaining three sites which are seasonally flooded and classed as greenheart forest (dominated by Greenheart - *Chlorocardium rodiei*) revealed broadly similar patterns to one-another.
- Forest type may therefore be an important determinant of bat communities in the Iwokrama Forest, and this may be due to some forest types naturally containing greater numbers of fruits for frugivorous bat species.

Recommendation: Read the Research Site summary found in the Associated Resource folder

