

Foraging preferences of ants between environments in the Amazon

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Abstract

Sodium is an essential nutrient for most organisms. The availability of sodium and salts generally decreases inland, and, as a result, organisms show an increased attraction to baits with salt along this gradient. Variation in salt availability does not only change on a large scale, but also between habitats on a local scale. Swamp areas with blackwater, called igapós, generally have less ions like sodium, than dry forest areas called terra firme. We therefore investigated ants attraction to baits with salt, compared to baits with sugar. The highest number of ants counted was used as a proxy for attractiveness which would give less skewed results from differences in time of discovery or recruitment. Although the attraction to baits with salt does not significantly differ between the environments, the ants in the igapó appears to be more attracted to both baits containing sodium. While the attraction to baits with salt significantly differs from the baits with sugar, this changes in the igapó, where the baits with salt no longer significantly differs from the other baits with sugar. This can be valuable knowledge when evaluating limiting factors for herbivorous arthropods and decomposers, who will affect nutrient cycling and carbon storage in forests.