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Spatio-temporal distribution of termite swarming in a Panamanian rainforest

Thomas Bourguignon¹, Maurice Leponce², Yves Roisin¹

¹Behavioral & Evolutionary Ecology, CP 160/12, Université Libre de Bruxelles, Avenue F.D. Roosevelt 50, B-1050 Brussels, Belgium (thomas.bourguignon@ulb.ac.be)

²Conservation Biology Section. Royal Belgian Institute of Natural Sciences, Rue Vautier 29, B-1000 Brussels, Belgium

Because of sampling difficulties, the fauna of forest canopies has long remained poorly known. Recently, several studies have highlighted the existence of a vertical stratification among rainforest arthropods. Such a stratification was also demonstrated for established colonies of termites, but the vertical distribution of swarming alates has never been documented.

Alate termites were collected in a Panamanian tropical rainforest between October 2003 and November 2004. Different kinds of traps were placed into the forest at different heights and were regularly collected. Flight interception traps (hereafter: FL) and light traps (L) were particularly efficient at collecting termites. Samples were analysed and determined at the level of species or morphospecies.

A previous study allowed to distribute most termite species between two groups: ground or canopy specialists. FL traps placed in the canopy captured more alates than traps placed in the understorey or near the ground. This tendency was slight for alates of ground-dwelling species, but obvious for alates of canopy dwellers. Results of L traps point into the same direction, but are not significant.

Alates of most species were caught at the beginning of rainy season, except some Kalotermitidae and *Embiratermes chagresi*. It is usual for Kalotermitidae to fly over long periods or even throughout the year (e.g. *Neotermes*), perhaps because alate maturation is dependent on colony condition. *E. chagresi* is unusual for swarming in the middle of rainy season.