Jan Lenc: Foraging activity and species composition of ants during day/night in primary and secondary forests in Papua New Guinea

The MSc Thesis by Jan Lenc opens with a well written review of the research theme, followed by a manuscript that I believe should be very well publishable. It is a study of key drivers of ant foraging activity and community composition, which in turn have significant impact on the structure and function of food webs. The research focuses on a lowland tropical rainforest in Papua New Guinea. The study uses tuna baits to sample ant communities and evaluate ant activity in different strata of primary and secondary forests during day and night. It is particularly this three-factorial design of the study that makes it innovative as it allows to explore the interaction among the three factors and link them to ant ecology, including ant abundance and nest types. The study is further notable by the species-level resolution of ant communities, which is generally quite difficult for tropical ants. The data analysis is appropriate and the results interesting. The study found that a higher foraging activity of ants during the day than during the night, a widely expected result, is actually driven mostly by arboreal ants and limited to the primary forest habitat. Further, while numerically dominant species show temporal differences in their activity, this is not the case for rarer species. Whether this is a result of specific physiological constraints or direct competition between species remains to be seen. As any good research, the study leads to further questions.

In summary, this is an excellent MSc publishable as a research paper and as such should be a sufficient basis to award an MSc degree to the author.

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