



EVOLUTIONARY ECOLOGY

QUANTITATIVE AND EVOLUTIONARY ECOLOGY OF COMMUNITIES GROUP

NICVERT Lisa

DOCTORANTE

UCBL

📍 43 bd du 11 novembre 1918
69622 VILLEURBANNE cedex (<http://maps.google.com/maps?q=43%20bd%20du%2011%20novembre%201918+69622+%20VILLEURBANNE%20cedex>)
☎ 04 72 44 81 42

@ Email

🐦 [Twitter \(https://twitter.com/lisanicvert\)](https://twitter.com/lisanicvert)

in [Linkedin \(https://www.linkedin.com/in/lisa-nicvert-4272181a0/\)](https://www.linkedin.com/in/lisa-nicvert-4272181a0/)

I am a Phd student (she/her) at the LBBE since October 2020, and I am supervised by Stéphane Dray (LBBE) and Hervé Fritz (IRL REHABS). My PhD subject is: "Analysis of the composition patterns of African fauna communities from camera trap data: identify co-occurrence networks and explore their robustness in the face of contrasting management modes and climate constraints".

Research

My research focuses on the interaction networks between species within a community. A first axis of my PhD consists in investigating methods to infer interactions between species from camera trap data. To do this, I use statistical models to infer attraction-repulsion networks between species. I use data from the

[Snapshot Safari South Africa program](#) ↗

, which manages camera trap grids in protected areas in South Africa. Some of the results of this axis have been published in the article "

[Using the multivariate Hawkes process to study interactions between multiple species from camera trap data](#)" ↗

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A second axis of my PhD consists in analyzing interaction networks, especially the link between species traits and their interactions. Therefore, I use multivariate methods applied to a bipartite interaction matrix.

Finally, a third axis of my PhD consists in developing a R package as well as a Shiny app to analyze camera trap data. The code is on




[GitHub](#) ↗

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URL of the page: https://lbbe.univ-lyon1.fr/en/annuaires-des-membres/nicvert-lisa?is_pdf=true

Teaching ("*activité complémentaire d'enseignement*")

As a PhD student, I have had the opportunity to take part in some teaching activities in the frame of the complementary teaching activity ("*activité complémentaire d'enseignement*") since October 2020. This consists in teaching practicals and tutorials for undergraduate students for 64 hours a year. I mainly taught statistics and R programming. In particular, I taught in the following courses (links in French):

- Practical and tutorials for the [Biostatistics and bioinformatics](#) 
course (L2)
- Practical for the [Bio-mathematics and Modelling BISM](#) 
course (L3)
- Practical for the [Biology and Modelling](#) 
course (L1)




Science popularization

I am very enthusiastic about science popularization. Besides, I am deeply convinced of its usefulness both for the general public and for my own research. I regularly take part in scientific outreach actions, such as the "*conférences embarquées*" (mini-conferences on a boat), the "*Fête de la Science*" (national science festival) or the *Déclics* meetings with high school students.

I have also been a member of the

[Projet Pangolin](#) 

society, which raises awareness about ecology and gives means to preserve the environment and biodiversity. I contribute mainly through drawings, but I also write articles for the blog. Here are some blog articles for which I contributed (in French):

- the [Naturalist guide on insects](#) 
and the [Naturalist guide on trees](#) 
(drawings)
- the article about [citizen science](#) 
(co-writing)