



## EVOLUTIONARY ECOLOGY

### ECOLOGY AND EVOLUTION OF POPULATIONS GROUP

**VUILLAUME Barbara**

**POST-DOC**

CNRS

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#### **Current research project:**

Demo-genetic analysis of two contrasting populations of red deer to establish the comparative dynamics, genetics and genomics to better understand the causes and consequences of environmental variability and management measures on the functioning of natural populations.

#### **Research topics:**

My research focuses mainly on population dynamics and genetics in response to wildlife management and conservation issues. Using statistical ecology approaches, and in particular Bayesian analyses, I aim to gain a better understanding of changes in demographic parameters and their factors. I also aim to identify the role of individual, environmental and anthropogenic effects in demographic changes and variations in genetic diversity.

- Population dynamics
- Population genetics
- Conservation ecology
- Statistical ecology

#### **Expertise:**

URL of the page: <https://lbbe.univ-lyon1.fr/en/annuaires-des-membres/vuillaume-barbara>

My expertise covers wildlife, statistical modeling, Bayesian analyses, population dynamics, survival analyses, impact of environmental factors on demographic parameters, population genetics, genomics, management of large databases, ... in the most recent ones. About the approaches and tools I use:

- Statistical modeling (integrated population models, robust survival and reproduction models, Bayesian analysis, etc.)
- Programming in R, including analysis under Mark, Jags in particular
- Mapping in ArcGIS, QGIS and also in R