

# Announce pour un post-doc (24 mois) en écologie à Nancy (France) / Announcement for a postdoc (24 months) in ecology at Nancy (France)

**Project PARTNER: Unravelling the role of wild ungulates in the regeneration of West European forests using plant traits (anti-herbivory, seed dispersal)**

## PROJECT CONTEXT AND TOPICS

Ungulates have played a crucial role in continental ecosystems for tens of millions of years, particularly through herbivory (work package 1) and seed dispersal (work package 2) interactions. (WP1) Since the banishment of domestic ungulates in the 19<sup>th</sup> century, forestry has studied tree regeneration within an ecological theatre often reduced to abiotic factors and competition for light. Since the end of the 20<sup>th</sup> century, regeneration methods have frequently been compromised by chronic and heavy browsing following the striking increase in abundance of wild ungulates. Attention has recently focused on the facilitating effects of blackberries on the regeneration of production forests, but the potentially facilitating role of the structural defences of multiple spiny species remains poorly understood. Studies showing strong associational resistance in protected wood-pastures invite us to test this hypothesis for the first time using large scale regeneration data. (WP2) Ungulates are documented seed dispersers of many plants, but they are generally considered to be ineffective dispersers of endozoochorous plants in temperate Europe. However, recent studies have shown that ruminant ungulates can effectively disperse many fleshy-fruited plants through regurgitation, in both tropical and temperate environments, but this cannot be demonstrated by traditional studies of faeces and stomach contents. Thus, we need field experiments to investigate seed dispersal by ruminants spitting from the cud in temperate Europe. In addition, observational studies might reveal a link between population size dynamics of ruminants and the regeneration probability of endozoochorous woody plants dispersed by regurgitation, which has never been studied on a large spatial scale.

## MAIN MISSIONS AND ACTIVITIES

### Fieldwork (WP2)

- Primary mission: seed dispersal field experiment focusing on 1 or 2 fleshy-fruited woody species and roe deer
  - monitoring of focal plant phenology
  - monitoring of frugivory interactions
  - monitoring of spat seeds and their fate where deer lay down
- Secondary mission: experiment to compare the germination dynamics of unconsumed seeds *versus* regurgitated seeds of focal plant species

### Data Analysis and Scientific Writing

Each point could ideally be the subject of a publication. The postdoctoral researcher is expected to publish at least two papers in international journals.

- WP1
  - Primary mission: statistical modelling of regeneration probability of most tree species using national forest inventory, plant defense traits and hunting statistics

- Secondary mission: development of a palatability scale of woody species using literature review
- WP2
  - Primary mission: analysis of seed dispersal field experiment data
  - Secondary mission: analysis of germination experiment data
  - Tertiary mission: statistical modelling of regeneration probability of focal woody species using national forest inventory data, seed dispersal syndromes and hunting statistics

## CONTRACT DETAILS

- **JOB STATUS:** FULL TIME / **HOURS PER WEEK:** 35
- **APPLICATION DEADLINE:** 31/08/2025
- **ENVISAGED STARTING DATE:** 01/12/2025
- **ENVISAGED DURATION:** 24 months
- **SALARY:** 3136 - 3560€ gross per month according to the INRAE salary scale, commensurate with experience, plus benefits (including social insurance)
- **FUNDING:** OFB-INRAE agreement <https://www.ofb.gouv.fr/convention-cadre-ofb-inrae>

## WORK LOCATION & AFFILIATION

UMR SILVA, campus d'AgroParisTech Nancy

14, rue Girardet – Bâtiment Rameau – 54 000 Nancy

## WHAT WE OFFER

The postdoctoral researcher will be assigned to [Silva Joint Research Unit](#) and more specifically to the EcoSILVA team that studies the ecology of little anthropized forests and ecosystems. The postdoctoral researcher will have an office at AgroParisTech Nancy, which has been the National School of Water Resources and Forestry since 1824. There, the postdoctoral researcher will be expected to collaborate with Sébastien Albert, lecturer at APT who initiated the PARTNER project with Sonia Saïd (OFB, Birieux).

The postdoctoral researcher will regularly go into the field, primarily in the context of WP2. The fieldwork will take place in forests owned by AgroParisTech in the vicinity of Nancy. These forests are located in different soil conditions, namely limestone plateau and clay-loam plain, enabling the study of a wide range of woody species.

The postdoctoral researcher will be expected to participate in work and action-research meetings with project partners, notably Sonia Saïd (OFB, Birieux), Christophe Baltzinger (INRAE, Nogent-sur-Vernisson) & Jean-Luc Dupouey (INRAE, Champenoux). Participation in at least one international conference is also expected, in addition to local seminars.

## QUALIFICATIONS, SKILLS & OTHER REQUIREMENTS

### Candidate profile

- PhD in Ecology
- Early-career researchers (PhD obtained within the last 3 years) are welcome to apply

## Technical and professional Skills

- Experience in field work is essential
- Excellent proficiency in data analysis using R is essential
- Demonstrated autonomy, curiosity, and initiative

## Soft skills

- Strong organizational skills and ability to work independently
- Ability to work as an essential member of a small team and to collaborate closely with a wide range of stakeholders: scientists, managers, and interns (Master's and PhD students)
- Capacity to prioritize tasks and meet deadlines
- Good oral and written communication skills in both French and English
- Strong scientific writing skills in English
- Experience in data acquisition and processing
- A valid driving license (B) is necessary

## APPLICATION INSTRUCTIONS

- Applicants are invited to apply writing at [sebastien.albert@agroparistech.fr](mailto:sebastien.albert@agroparistech.fr), [sonia.said@ofb.gouv.fr](mailto:sonia.said@ofb.gouv.fr), [christophe.baltzinger@inrae.fr](mailto:christophe.baltzinger@inrae.fr), with the email subject "application\_postdoc-PARTNER\_Lastname"
- Applicants are invited to send the following documents
  - A detailed CV & a list of publications including links to publications
  - A cover letter describing their motivation, digital and field skills, and relevant experience
  - One letter of recommendation is strongly encouraged