Mammal Research Institute
Polish Academy of Sciences
Białowieża

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PhD position at the Mammal Research Institute, Polish Academy of Sciences, Białowieża, within the project funded by the National Science Centre, Poland (OPUS grant nr. 2024/55/B/NZ8/01668):

Do wolves increase temperate forest tree diversity?

Project description

Large carnivores, such as leopards and wolves, can indirectly influence vegetation by predating herbivores, releasing plants from herbivory. This predation may trigger a cascading effect that alters vegetation structure, ecosystem functioning, and ultimately, biodiversity. While much research on carnivore-induced trophic cascades has focused on individual prey or tree species, the consequences for entire woody plant communities remain to be explored. Recent advances have highlighted the importance of using a plant functional traits framework to understand how herbivory shapes woody plant communities. This approach shifts the focus from individual plant species to the morphological and physiological traits that determine how woody species cope with herbivory. Despite these insights, the cascading effects of large carnivores on woody species trait diversity remain largely unexplored in temperate Europe, in addition to the effects of resource availability (e.g. water, light) and climate (e.g. seasonality). This project aims to fill this gap by investigating how predation by a large carnivore, the wolf, by seasonally affecting the ungulate prey community may affect the diversity and distribution of woody plants and their traits in Białowieża Forest. We hypothesize that wolf shapes the seasonal foraging behavior of their ungulate prey, leading to cascading effects on the composition and functional trait diversity of regenerating tree communities. The study addresses two general questions:

1. Where and how much do ungulates browse on trees, and how does wolf activity and seasonality influence this?

2. Do changes in ungulate browsing patterns caused by wolves affect the diversity and traits of young trees?

To answer these questions, we will use a combination of research techniques:

- Camera traps to monitor the distribution and behaviors of wolves and ungulates.
- eDNA analysis to determine their diets.
- Field measurements of morphological traits on tree regeneration community.

We will collect data across different areas of the forest where wolf and ungulate activity is well-documented. We will also consider factors like soil quality, light availability, and the seasons, as these can influence both predator-prey interactions and tree growth. Within this framework there is space to develop also your own research questions.

Working environment and research group:
The Mammal Research Institute of the Polish Academy of Sciences (MRI PAS) founded in 1952, conducts research in the field of ecology, ethology, morphology, population genetics as well as population management and conservation of mammals and other terrestrial vertebrates. The mission of the Institute is to acquire, advance, and disseminate knowledge of natural patterns and processes in order to improve the scientific basis for effective nature conservation activities and sustainable development. We focus mainly on Białowieża Primeval Forest (UNESCO Biosphere Reserve and World Heritage Site) as a study area, but also on other regions of Poland and Europe. The Institute employs ca. 60 people, including researchers, PhD students, and qualified technical and office staff. The institute is based in the village of Białowieża in the middle of Białowieża Forest, Poland. This is a remote place (ca. 1500 inhabitants) close to the Polish- Belarus border, ca. 20 km from a nearest city. You will be part of a small, friendly research team including: two senior researchers on fixed position, three post-docs, one PhD in Bialowieza, one PhD partly abroad and in Białowieża, under the supervision of dr. hab. Marcin Churski, dr. hab. Dries Kuijper with close collaboration with dr. Tristan Charles-Dominique from AMAP, Montpellier and Robert Spitzer from FVM, SLU Umeå.

What additionally can we offer to you?
- A project with international collaborators from France (AMAP, Montpellier), Sweden (VFM, SLU, Umea), the Netherlands (Utrecht University).
- Much freedom to develop your own research ideas within the framework of the project
- Help with accommodation; we have relatively inexpensive flats in Białowieża, situated close to the institute that can be rent by PhD (with family when required).
- Possibility to attend courses, workshops and conferences organized by MRI PAS and BIOPLANET doctoral school.
- Unique chance to work and live in a nice place: a small village (i.e. Białowieża) located in the middle of Białowieża Primeval Forest one of the most important biodiversity hotspot in Europe. MRI PAS is located 1.2 km from strict reserve of the Białowieża National Park.
- A friendly and supportive working environment.
- Some bison in your back garden ☺

PhD tasks:
1. Describe tree strategies for competition for light and survival under herbivory.
2. Predict seasonal patterns associated with herbivory effects driven by wolves.
3. Analyse consequences over important plant fitness component such as dispersal strategy and life in open vs. closed.
4. Field work, data analysis, writing scientific papers.

Requirements:

- **Mandatory:**
  1. Motivated plant ecologist interested in animal-plant interactions.
  2. Good knowledge of statistical software (especially R).
  3. Good knowledge of statistical methods in biology to analyse highly-variable field data sets.
  7. Fluent skills in English both in speaking and writing.
  8. Independent worker and good team player.
  9. Handle life in the small & remote Białowieża village.
- **Non mandatory, desired skills and experience:**
  1. Experience in describing plant adaptations to light, herbivory and dispersal by animals.
  2. Advanced knowledge on ecology and/or evolutionary ecology.
  3. Practical experience and training in plant architecture.
  4. Driving licence.

Required documents:

Recruitment process of the BioPlanet Doctoral School is joined with the recruitment of doctoral applicants to a project funded by external institutions (National Science Centre, The National Centre for Research and Development, Foundation for Polish Science, etc.), the beneficiary of which is one of the institutes forming the Doctoral School.

1. Application for admission to the BIOPLANET Doctoral School along with consent for the personal data to be processed for the purpose of recruitment, and declaration of acceptance of the terms and conditions of admission (application form).

2. Certified copy of diploma or certificate of completion of studies. If the applicant does not have proof of the qualifications, s/he is obliged to provide them before the Doctoral School program begins.

3. CV including education, employment and research experience with a list of publications and a short description of scientific achievements, particularly information on participation in scientific conferences, workshops, training and internships, participation in research projects, involvement in learned societies and students' scientific associations, and awarded distinctions and scholarships.

4. Certificates or other documents confirming knowledge of English, if the applicant has them at his/her disposal.

5. An opinion on the applicant and their past scientific activity from an academic staff member or a university teacher with at least a doctoral degree. Instead of providing such a document, a person who is an academic staff member or a university teacher and holds at least a doctoral degree can be designated from whom the Recruitment Committee can obtain their opinion on the applicant independently.

6. Declaration of consent for processing of personal data, attached below (only first signed page should be scanned and delivered through e-mail).

Conditions of employment:

The PhD will be a 4-years fully funded position (incl. research budget, travel costs, laptop). Monthly netto salary is 4191.00 PLN/month (5000 PLN gross - the highest National Science Centre allows for PhD students), ensuring pretty good life standard in Poland. Keep in mind that living in Poland is much cheaper than in Western Europe!

Applications should be sent directly to Marcin Churski by letter or electronically by 31st August 2025. The selected candidates will be invited to an online or stationary interview and the decision will be announced by 12th September 2025. Start of a PhD position: October 2025.

Candidates' applications will be assessed in accordance with NCN regulations. The selection will be based on the qualifications of the candidates including scientific achievements, experience, awards, internships, skills and competences. Recruitment is a two-stage process and includes: 1) evaluation of candidates' documentation and 2) an interview with selected candidates (you will be asked to present your MSc thesis in a few slides).

Contact person

Dr. hab. Marcin Churski
Mammal Research Institute Polish Academy of Sciences
ul. Stoczek 1
17-230 Białowieża, Poland
e-mail: mchurski@ibs.bialowieza.pl

Declaration of consent for processing of personal data for recruitment purposes to the BioPlanet Doctoral School

I confirm the correctness of my personal data included in the application form for admission to the BioPlanet Doctoral School.

I consent for my personal data to be processed by the Institute of Mammal Research Institute Polish Academy of Sciences (hereinafter referred to as IBS PAN) for the purposes necessary for the recruitment process to the BioPlanet Doctoral School (in accordance with the Regulation of the European Parliament and of the Council (EU) 2016/679 of 27 April 2016, on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Regulation on Data Protection) (J.L. EU. 2016, No. 119, p. 1) - hereinafter referred to as RODO, and national data protection regulations issued on its basis.

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Place, date Signature

I consent for my personal data to be processed by the Mammal Research Institute Polish Academy of Sciences in Białowieża (hereinafter referred to as IBS PAN) for the purposes of the recruitment process to the BioPlanet Doctoral School (**required if the data provided include special categories of data referred to in Article 9(1) of the General Regulation on Data Protection**).

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Place, date Signature

I agree to the processing of my image in the form of photographs attached to the application on the basis of Article 81 of the Act of 4th February 1994 on copyright and related rights by the Institute of Mammal Biology of the Polish Academy of Sciences in Białowieża (hereafter IBS PAN) for the needs of the recruitment process to the BioPlanet Doctoral School.

....

Place, date signature

RODO information clause

(drawn up in connection with the implementation of the obligation indicated in Article 13 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons in connection with the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC. (Official Journal of the EU L 119, p. 1).

1. The administrator of your personal data is the Institute of Mammal Biology of the Polish Academy of Sciences in Białowieża (hereinafter IBS PAN), represented by the Director of IBS PAN, ul. Stoczek 1, 17-230 Białowieża, e-mail address: mripas@ibs.bialowieza.pl, tel.85 682 77 50.
2. Any questions regarding the manner and scope of the processing of your personal data and your rights under RODO may be directed to the designated Data Protection Officer at e-mail address: iod@ibs.bialowieza.pl or by writing to the registered office address indicated above with the reference "Data Protection Officer".
3. Your personal data will be processed for the purpose and to the extent necessary to carry out the recruitment procedure to the BioPlanet Doctoral School, hereinafter referred to as "doctoral school" The legal basis justifying the processing of your personal data is a provision of law (art.6(1)(c) RODO) - in particular Article 200 of the Act of 20 July 2018. Law on Higher Education and Science (Journal of Laws of 2021, item 478, i.e.), the Rules and Regulations for recruitment to the BioPlanet Doctoral School established by the scientific councils of the institutes forming the doctoral school pursuant to Article 200(2) of the aforementioned Act, as well as the consent given by you for the processing of data in the recruitment process (the basis for the processing of personal data will then be Article 6(1)(a) of the RODO and Article 9(2)(a) of the RODO). Such consent is voluntary, but it may be necessary in order to provide you with certain benefits or services (e.g. increasing your doctoral scholarship (pursuant to Article 209(7) of the Act of 20 July 2018. Law on Higher Education and Science).The controller may also process personal data to protect its legitimate interest (Art. 6. par. 1 lit. f) RODO) - for the purpose of handling, investigation and defence in the event of the occurrence of mutual claims.
4. In the case of your simultaneous consent to the processing of your image for the purposes of recruitment, in accordance with Article 81 of the Act of 4 February 1994 on copyright and related rights (Journal of Laws of 2019, item 1231, i.e.), the provisions of this clause concerning the processing of personal data apply accordingly to the processing of your image by the Administrator.
5. The recipients of your personal data are the appointed Recruitment Committee authorized by the Administrator to process data in order to conduct the recruitment after the announcement of the competition for candidates to the BioPlanet Doctoral School, as well as entities with whom the Administrator cooperates in the implementation of your education, including entities conducting inspections and evaluations, as well as other entities authorized to receive data on the basis of legal regulations.
6. After the recruitment process has been completed, your personal data may be stored by the controller for no longer than 6 months, exclusively to the extent necessary for statistical purposes, unless, before the expiry of the period indicated above, you withdraw your consent or restrict it, subject to point 7. In the event that the basis for processing personal data after the recruitment process has been completed is a legitimate interest of the

administrator (e.g. in connection with proceedings before an administrative court initiated by the candidate as a result of a refusal decision concerning admission to the BioPlanet Doctoral School), your personal data will be processed only until the end of the proceedings being the basis of the legitimate interest of the administrator or until you file an effective objection.

7. In the event that you become a doctoral student (i.e. successfully pass the recruitment process and commence your education at BioPlanet Doctoral School), the processing of your personal data will be carried out for the entire period of your education at BioPlanet Doctoral School, including the expiry of the limitation period for any claims, and after this period the data will be kept for archiving purposes - for the period provided by law.
8. You have the right to request access to your personal data (including making a copy of it) and, under the conditions set out in the RODO, the right to rectify (amend), erase or restrict the processing, object to the processing of the data, transfer the data and the right to lodge a complaint to the supervisory authority, which in Poland is the President of the Office for Personal Data Protection having its seat at: Office for Personal Data Protection, ul. Stawki 2, 00-193 Warsaw.
9. You also have the right to withdraw your consent for the administrator to process your personal data at any time. Withdrawal of consent does not affect the compatibility of the processing of your personal data, which was carried out on the basis of consent given before its withdrawal. However, withdrawal of consent to data processing during the recruitment process makes it impossible to proceed to subsequent stages of the recruitment process.
10. The provision of personal data required by law is compulsory and in the remaining scope it is voluntary, however the provision of such data is necessary to achieve the objectives of the recruitment process.
11. Your personal data obtained for the purposes of recruitment will not be transferred to a third country or an international organisation.
12. Your personal data will not be subject to automated decision-making, including in the form of profiling.