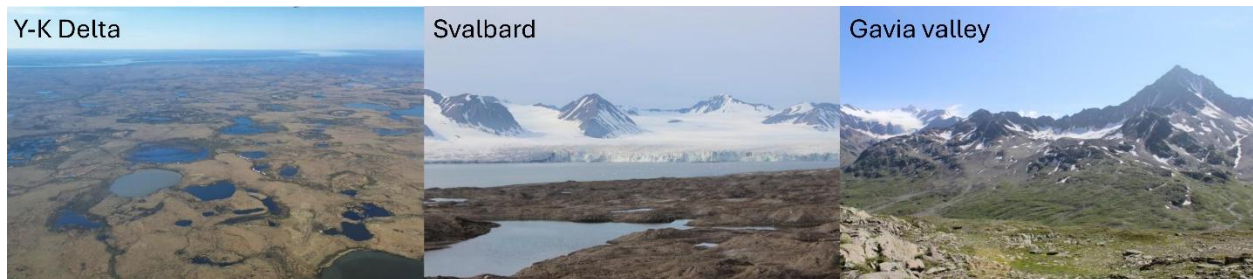


PhD position in Tundra plant and ecosystem ecology
Department of Applied Ecology
North Carolina State University

The Petit Bon's Lab ([Faculty](#); [Google Scholar](#)) in the [Department of Applied Ecology](#) at [North Carolina State University](#) (Raleigh, NC) **invites applications for a PhD student beginning in May or June 2026**. The position is supported for **four years** through a combination of Research (2 years) and Teaching (2 years) Assistantships (RA/TA).



Project overview

Tundra ecosystems, both high-latitude and high-altitude, are undergoing some of the most rapid environmental transformations on Earth, including shifts in temperature regimes, flooding frequency and intensity, extreme events such as drought and rain-on-snow, and changes in snow cover duration. **This ambitious project aims to quantify and compare functional (trait) diversity and biogeochemical responses of tundra ecosystems to these climate change drivers.** The work combines **observational studies** and **manipulative experiments**, leveraging unique **long-term experiments** (10-20 years) in tundra ecosystems. Field activities will be conducted at **three main locations across two continents**: the Yukon-Kuskokwim (Y-K) Delta, western Alaska (USA), high-Arctic Svalbard (Norway), and the high-alpine Gavia Valley (Italy).

Field and lab work

The position involves two summer field campaigns: in 2026 (starting approximately one and a half months after appointment) in the remote Y-K Delta, Alaska (~1 month expected), and in 2027 across Svalbard and Italy (~2 months expected). **Field crews will camp for several weeks** with no access to internet, phone service, or nearby facilities. Candidates must be prepared to work under **physically demanding conditions** and in cold, wet environments. Following fieldwork, **several weeks of laboratory analyses** will be conducted at NC State. Undergraduate assistants may support sample processing, contingent on funding.

Training and environment

The student will join a **collaborative research network** with scientists who have decades of experience in Arctic and alpine ecosystems and will have the opportunity to work with unique long-term experiments. **Scientists from US, Norwegian, and Italian institutions are part of the project.** The position provides strong training at the interface of plant functional ecology and ecosystem biogeochemistry, with **emphasis on quantitative analysis and the publication of scientific papers in high-ranking, peer-reviewed international journals.**

Minimum required qualification

- B.S. in ecology, environmental science, biology, or a related field (candidates holding an M.Sc. degree and looking to continue with a PhD are encouraged to apply).
- Interest in plant and ecosystem ecology and interactions between vegetation, ecosystems, and the environment.

Important qualifications

- Demonstrated field and/or laboratory research experience.
- Familiarity with, and willingness to further expand your knowledge of, statistical methods (univariate and multivariate) in R.
- Evidence of research independence (for example first- or co-authored publications, poster and talk presentations at conferences).
- Strong interpersonal skills, inclusivity, and readiness to collaborate across institutions, as well as flexibility and resilience to change.

Desired qualifications

- Knowledge of plant identification, especially grasses and sedges, or willingness to learn.
- Prior work in challenging environments.

NC State and the Research Triangle

NC State University is a Carnegie R1 institution, a doctoral university classified as having very high research activity. It is located in Raleigh, North Carolina, part of the Research Triangle alongside Duke University and the University of North Carolina at Chapel Hill. The region hosts a **vibrant academic ecosystem with outstanding research facilities**, one of the highest densities of graduate students in the United States, and extensive opportunities for interdisciplinary collaboration. **The Department of Applied Ecology, as well as Petit Bon's Lab, fosters an inclusive, supportive environment that values diversity, safety, and professional growth.**

Support and expectations

The position provides a **competitive stipend, full tuition coverage, and research funds** for sample processing. Students will be highly encouraged and mentored to pursue external funding to support additional research and/or travel. **The position is in-person only; remote work cannot be considered for this project.**

To apply and the process

Interested candidates should email Dr. Matteo Petit Bon (mpetitb@ncsu.edu) by Friday, 19 December 2025 with:

1. a detailed CV (2-page max);
2. a one-page statement describing academic background, research experience, interests, and why you think you are a good fit for this project; and
3. contact information (name and current email address and the mentoring role these researchers have played in your career) for two references.

The top candidates will be invited for a Zoom interview in the week of 5-9 January 2026, and the successful candidate will be invited to apply formally to the Graduate Program in Biology shortly thereafter.