Job and Grad School Resources

Grossman Lab (updated by JJG January 2025)

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Job / Internship Opportunities

St. Olaf Only

Environmental Internship Resources - Piper Center

Nate Jacobi, who specializes in environmental jobs at St. Olaf's Career Center (the Piper Center) has put together <u>this fantastic resource</u> on searching for environmental internships and similar. Oles interested in environmental careers should make an appointment with Nate at the Piper Center ASAP.

St. Olaf CURI

St. Olaf sponsors regular summertime Collaborative Undergraduate Research and Inquiry (CURI) projects for current St. Olaf students only. These are paid positions (40 hrs/week at \$13/hr for up to 10

weeks) in Northfield, MN or at Cedar Creek Ecosystem Science Reserve (East Bethel, MN) with housing in dorms offered to all participants. You can apply to work with several research groups, including the Grossman Lab. See projects and details for the current year here.

Open to All Students / Applicants

Ecolog Listserv

The Ecological Society of America (ESA) is a professional group for ecologists. They maintain a listserv open to anyone. Much of the traffic on the listserv consists of job ads. These seem to pick up especially from January to May as people look for help with the summer field season. The directions for joining the Ecolog-L jobs listserv are here. You don't have to be a member of ESA to use it.

LinkedIn

<u>LinkedIn</u> has a pretty good environmental job board. I suggest navigating to the page of The Nature Conservancy, other non-profits, or key government agencies (EPA/USDA/USFS/NPS), all of which post many environmental jobs.

ESA Ecophysiology Section Job Board

The ESA's Ecophysiology section maintains a limited but well-curated <u>list of job opportunities</u>.

REU Database

Research Experiences for Undergraduates (REUs) are paid, summertime positions in which students do mentored, independent research in diverse fields. They are sponsored by the National Science Foundation (NSF) and are, depending on the site, somewhat competitive. Apply to these early in the calendar year. You can search for REUs <a href="https://example.com/here-example.com/here

Institute for Broadening Participation Pathways to Science (Undergrad opportunities)

This is a great portal for finding summer research opportunities, post-bac programs, scholarships, etc., all in STEM and many with a focus on less-represented groups.

Cedar Creek LTER Community and Ecosystem Ecology Internships

Every year, a large pool of paid interns are hired to work at the Cedar Creek Long-Term Ecosystem Reserve (LTER) site, just 40 minutes north of the Twin Cities in Anoka County. This is an excellent place for a summer position (for college students) or a longer seasonal job (for recent graduates). The work is often strenuous, but it's a great place to get your hands dirty doing field ecology. You can also apply several work hours each week toward working on your own mentored research project. Applications are accepted on a rolling basis. You can learn more and apply here.

From 2025 onward, you can also apply for the Cedar Creek REU through the same application. Prof. Jake is part of the mentor team for the REU, so please get in touch with him if you are thinking about applying!

Minnesota Government Jobs Database

This <u>database</u> allows you to search all jobs in the MN state government. You can search for keywords, narrow by geographic area, and/or look in agencies with particular environmental themes (Agriculture, Cannabis Management, Colleges and Universities, Natural Resources, etc.).

Minnesota Green Corps

The <u>Minnesota GreenCorps program</u>, coordinated by the MPCA, aims to preserve and protect Minnesota's environment while training a new generation of environmental professionals.

Each year, the program places AmeriCorps members with host site organizations around the state to build community resilience by:

reducing air pollutants and improving air quality reducing water runoff and improving water and land quality preventing waste and increasing recycling encouraging eco-friendly behavior

Minnesota GreenCorps members serve full-time at their host site for 11 months, from October 2025 to September 2026. Members implement environmental projects to build community resilience in one of four topic areas: community readiness and outreach, energy conservation and green transportation, stormwater and forestry, waste reduction and recycling. Sample projects include activities such as coordinating multi-modal transportation events, educating community members and youth, removing invasive species, installing rain gardens, benchmarking energy, conducting waste sorts, and more.

Regional Associations Information Network (R@IN)

The Regional Associations provide member states and provinces with forums for the design and presentation of training, opportunities for professional networking and mechanisms for information sharing. The Regional Associations support integrated administrative, civil and criminal enforcement programs. Membership consists of representatives from state and local environmental regulatory, investigative, and criminal and civil prosecutorial agencies throughout the U.S. and Canada. Various U.S. and Canadian federal environmental agencies are also associated with the Regional Associations. The

Regional Associations are major providers of training to state and local regulatory and enforcement personnel. R@IN maintains a job board here.

Graduate School Opportunities

Should I apply to grad school?

My general advice is to apply to graduate school if the degree you are seeking is likely to help you do the kind of work that you want to do in the world. I would not advise applying to grad school *only because* you: are curious and love learning, have done well in school in the past, don't know what else you want to do, want to challenge yourself, know your parents want you to do so, have been told to go to grad school, etc. These aren't reasons not to apply to grad school, and some of them might even be indicators that grad school is for you, but I would only apply to grad school if the degree you are pursuing seems likely to improve your ability to do work that will provide you with a livelihood and/or make the world a better place.

The question of what kind of grad school to apply to might be just as important as the question of whether to apply. There are basically two categories of graduate programs:

- "learned"/thesis-based M.A./M.S./PhD programs and
- professional graduate programs (usually master's).

Learned programs involve taking some classes, doing some mentored research, and writing a thesis (M.A. or M.S.) or dissertation (PhD). You will do this work while being supervised by an advisor and under the guidance of a committee (a few faculty, including your advisor). One of the main goals of a learned degree is to teach you how to do research in your field. Learned degrees are often gateways to: more graduate school (if you do a master's and continue on to a PhD); an academic (faculty) job (if you do a Phd.); a position as a principal investigator (PI) or researcher in a government agency, a nonprofit, or the private sector; or a high-level management or administrative job that requires significant technical expertise.

Critically, <u>you should not pay to do a learned master's or PhD</u>. High-quality programs will waive your tuition, provide health insurance, and pay you an annual stipend (enough to live on). In exchange, you will spend ~20 hours a week as a teaching assistant (TA) or research assistant (RA) working for someone in your department. That leaves the other ~20 hours of your week to take classes and do your own research. I advise against accepting admission into a graduate program in which you are not funded or are only partially funded - these are more likely to be exploitative.

Undergraduate students often ask if they should pursue a learned master's or a PhD. I suggest that you do **not** pursue a PhD unless you want a job that requires a PhD or are at least reasonably sure that you do. Therefore, it might make sense for many students to pursue an M.A. or M.S. in a learned program and then, if they decide that they want to keep going, enter a PhD program. A learned master's can help you earn more, secure higher-level or more secure jobs, and teach you important job skills, so it can be useful

across a wide range of professional paths. On the other hand, students who are decently sure that their path will include a PhD should enter a PhD program as soon as possible.

Professional graduate programs come in a variety of forms and grant degrees (usually a master's of something) that are likely to prepare you for doing a specific job or set of jobs. These programs might not require independent research and might instead be course- and practicum-based. You also are less likely to have a specific advisor whose research group you are part of in this model. Examples of professional degrees include:

- Master's of Forestry (MF)
- Master's of Landscape Architecture (MLA)
- Master's of Public Health (MPH)
- Teaching degrees (MTA, teacher certification programs)
- Master's of Public Administration or Policy (MPA/MPP)
- Master's of Business Administration (MBA)
- Master's in Professional Studies (MPS)
- Nursing degrees (RN, MN, etc.)
- Professional doctorates (JD, MD, DD, DPT, DNP, etc.)

Because the presumption here is that you are doing a (relatively) short degree that will help you do a specific job, these programs are mostly self-funded, unless you get a scholarship. So, I would only pursue a professional graduate degree if you feel that it is likely that the financial investment (including loans) you make in it will likely be rewarded.

How do I apply to Ph.D. (or M.S.) programs?

If you have decided that you want to pursue a learned degree (MS or PhD; see previous section) in the sciences, how should you go about applying to programs? The following sequence of steps will work for most programs:

- 1. **Research programs.** Decide what kind of graduate programs you want to apply to and which specific programs to apply to. Do this during the spring to summer of the year before the year in which you want to start graduate school.
 - a. Program type can play a big part in affecting the environment you work/study in. For instance, as an ecologist, I have been a graduate student in both an Ecology, Evolution, and Behavior (EEB) grad program and a Forest Resources grad program. The first was very "fundamental" or "basic" faculty and students were focused on asking questions about how organisms live in their environments, interact with each other, and change over time. The second was very "applied" faculty and students were interested in thinking about how humans could manage their environments to meet goals related to human needs and conservation. It might be helpful to explore where your interests fall on a basic to applied continuum.
 - b. Location/institution can also make a difference. Especially if you are pursuing a PhD, you may wish to restrict yourself to only applying to schools located in places where you would be happy living for ~6 years. There is also an extent to which getting a degree from a prestigious university may contribute to your success, especially in an academic career.

2. Contact Prospective Advisors. Once you know what kind of program you want to apply to, identify potential advisors in the program. This step can occur iteratively with #1 and should take place in the summer and fall of the year before the year in which you want to start grad school. Perhaps there is a potential advisor that interests you - maybe someone whose work you have read. You can find out which programs they advise in and consider those. For *most* learned graduate programs, you cannot get admitted to the program without at least one prospective advisor supporting your application from the inside. So, it is essential to get in touch with and cultivate relationships with prospective advisors before/as you apply. To do so, you can get in touch with faculty you have met or, more likely, send cold emails to faculty who interest you. Feel free to adapt this sample email.

Dear Dr.	,

I am a junior at St. Olaf College majoring in Biology with a concentration in Environmental Studies. I am writing to you as a prospective PhD student in the Ecology, Evolution, and Behavior program at UMN. I am a plant ecologist interested in studying the ways in which legume-grass interactions in prairies shape fire frequency. My professional goal is to earn a PhD and work in the grassland management space, whether for a federal agency or a private non-profit.

Given your research program, I thought that I might be a good fit to join your lab group. Are you accepting graduate students in the coming year and would you be willing to talk with me briefly over the phone or Zoom about joining your lab group? And if not, can you recommend any colleagues at Minnesota who might be a good fit for me and whom I can reach out to? I have attached my CV if you would like any further information about my professional and academic background. Thank you in advance for considering this email.

Best,

- **3. Apply to Programs.** If you have successfully cultivated one or more prospective advisors, apply to their graduate programs in the fall of the year prior to the year in which you want to start graduate school. Applications usually include an essay or essays, letters of reference, etc.
- **4. Campus Visits.** If you apply to PhD programs, you may be notified that, as a finalist, you need to come to campus to interview. During these "welcome weekends," prospective students who are being strongly considered come to campus to meet with program faculty, see facilities, etc. These visits are a chance for the program to interview you but are also your chance to interview/screen them. All costs you incur on these visits should be paid for by the recruiting department.
- **5. Accept an Offer.** You should be issued a formal offer letter before mid-April if you have been accepted into programs. This should include your stipend amount, information about health insurance and other benefits, etc. It's OK to negotiate at this point make sure that you understand what you're signing up for!

Listservs and Grad Program Boards

Institute for Broadening Participation Pathways to Science (Grad Opportunities)

<u>This portal</u> links to a variety of graduate fellowships and programs for students interested in STEM, many with a focus on less-represented groups.

Master's / Certificate Programs

Wolf Ridge Graduate Naturalist Training Program

In this unusual program, students spend 10 months working and teaching in the Wolf Ridge environmental education program in Northern Minnesota and take four classes. They graduate with a certificate, 12 graduate credits from Antioch University New England, and experience as an environmental educator. The course runs from August to June and costs \$3000 out-of-pocket. More information here.