

Building an inclusive culture of mentoring diverse doctoral students

A Plan for the Department of Forestry and Environmental Resources

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Approved by the DAM in April 2004

Background:

The demographics of students (including doctoral students) in natural resources fields do not reflect the demographics of the broader population, and some groups continue to be systematically underrepresented. The Department of Forestry and Environmental Resources (FER) has identified the recruitment, retention, and successful graduation of students from domestic (US) historically underrepresented backgrounds (“URM students”) as priority areas. Efforts to diversify the department while enhancing inclusivity will benefit students from all racial, ethnic, and income backgrounds by building a supportive environment where students more effectively learn together.

This plan, developed under the aegis of the Alliances for Graduate Education for the Professoriate - North Carolina (AGEP-NC) program, identifies department priorities for supporting URM graduate students (including but not limited to doctoral students) and outlines a series of actions to address those priorities. The plan draws upon results of a departmental climate survey of graduate students and faculty conducted during 2020-21, a survey of graduate students in Fall 2021 to assess their needs for professional development and mentoring, and data on the demographics of doctoral students over the past 5 years.

Challenges to maintaining a diverse student body in FER:

The Dept of FER offers two doctoral programs in *Forestry* and *Fisheries, Wildlife, and Conservation Biology*, the second of which is an interdepartmental program with students and faculty in multiple colleges. While retention and degree completion rates are high in both of these programs, they have tended to include proportionally few URM students compared to majority White students and international students.

The funding situation for graduate students in FER has become more challenging due to budgetary constraints which, along with the higher threshold for GSSP support, have forced a reduction in the number TA positions available to support graduate students. There is concern about supporting the large number of graduate students in our department and about the possibility that students from historically underrepresented backgrounds have the least access to outside financial support (from family, loans, or savings). All students are experiencing greater financial challenges as the cost of living rises in this area. The department is engaged in conversations about recruiting fewer students who can be provided with greater financial support.

Targeted approaches to increasing diversity while creating an inclusive and supportive environment for FER students:

Improving the academic climate for URM graduate students will require overcoming significant barriers, described here along with strategies to overcome them:

1. **Recruitment:** The current recruitment process is driven by the efforts of individual faculty members. The department is seeking to enhance recruitment of URM students by
 - a. Coordinating with CNR to establish a presence and recruit at conferences such as
 - i. Diversity in STEM Conference of the Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS),
 - ii. MANRRS (Minorities in Agriculture, Natural Resources, and Related Sciences).
 - b. Networking with historically Black colleges and universities (HBCUs), Hispanic-serving institutions (HSIs), and Tribal colleges and universities (TCUs) to recruit graduate students, including exploring funding options for bridge programs (creating pathways from undergrad and masters degree programs to graduate study in FER).
 - c. Incentivizing individual faculty to recruit and support more URM students, for example, by recognizing graduate student mentoring efforts in annual accomplishment reports.
 - d. Eliminating the GRE requirement for new applicants (by faculty vote in 2021).
 - e. Coordinating with CNR recruiting to diversify the undergraduate enrollment in the Environmental Sciences, Forest Management, and Fisheries, Wildlife, and Conservation Biology degree programs to support a pipeline to FER doctoral programs.
 - f. Offering more paid research and internship opportunities to URM undergraduate students.
2. **Funding:** Currently, doctoral students are supported by grants obtained by their advisors supplemented with Teaching Assistantship positions for selected courses, as well as competitive fellowships offered by CNR (e.g. for ENVFY) and the University (e.g. for GOHA). NC State does not offer fee waivers. Often, students from historically underrepresented backgrounds have less family support to help pay fees due at the beginning of each semester, and to offset low stipends in the context of an increasing cost of living. The department is seeking to create more tenable conditions for students by:

- a. Examining advantages and drawbacks of eliminating the requirement to obtain a MS before a PhD, since that limits our prospective students' ability to compete for supplemental fellowships from the university and may make our program less appealing relative to similar programs at other universities that offer a shorter timeline to completion,
 - b. Supporting and disseminating assessments of stipend levels in the context of local living wages and competitiveness with peer institutions,
 - c. Encouraging and supporting fundraising efforts for assistantships and funding to cover fees for graduate students,
 - d. Pursuing targeted funding opportunities. For example, several faculty teams in the department have recently won National Needs Fellowship Awards from the USDA to establish cohorts of graduate students, with recruiting strategies and research topics that are conducive to participation by graduate students from domestic historically underrepresented groups. These new programs can serve as nuclei for seeking similar longer-term funding via training grants.
3. **Mentoring:** All graduate students in FER have a faculty advisor and eventually an advisory committee, but they could benefit from a broader mentoring network especially in their first year in the program before they have established their advisory committee. Suggested actions include:
 - a. Building a culture of faculty mentoring graduate students in domains such as career objectives and balancing work and family, where having an informal mentorship network would particularly benefit those from underrepresented backgrounds and first-generation students who might not have professional connections through family and friends. All students would benefit from growing relationships with faculty across the department as a way to gain new perspectives and identify new opportunities for professional development. Recognizing that faculty already have many obligations, participation in an informal mentoring network will be acknowledged as service on annual reviews and in promotion packages.
 - b. A program of formal community advisory teams was proposed for the Environmental Justice National Needs Fellows cohort. Its purpose was to ensure attention to holistic (and often, nonacademic) mentoring needs of students from historically underrepresented backgrounds as a way to expand the students' support network. As this cohort moves towards graduation, the department will learn from their experience.
 - c. Integrate informal mentorship into FOR 803 to encourage greater interaction between faculty and students across the department. This could involve creation of an assignment requiring students to talk with

faculty other than their advisor about professional development. Introduction of more faculty to students through guest lectures in FOR 803 would also support this goal.

- d. Promote peer-to-peer mentoring among graduate students by encouraging and supporting the Graduate Student Association to develop programming in this area.
4. **Professional development and community building:** With graduate students spread across two doctoral and four masters' programs, and physically spread across buildings from Turner House to the Varsity Trailer to Partners II, it can be challenging for students to develop a sense of belonging. Graduate students from underrepresented backgrounds have identified a need for building community, which the department is addressing as follows.
- a. The DEI committee hosted a *Mental Health Break* event in Spring 2022, responding to students asking for space to have conversations about the stresses of conducting and sustaining doctoral research. Student isolation increased during the COVID pandemic, and in-person presence in the department has not yet returned to pre-pandemic levels. The FER Leadership Board offers events designed to build community several times each semester.
 - b. Develop and offer workshops focusing on specific challenges facing students from historically underrepresented groups who are preparing for faculty careers. Based on ideas solicited from faculty and current graduate students, and voted on by graduate students, the FER DEI committee offered two webinar/workshops in 2021-22 addressing two topics: Decolonizing Science and Cross-Cultural Communication. There was also interest in holding workshops on topics such as Work-life Balance, Equitable Teaching Practices, and Career Networking.
 - c. Contribute to the Associate Dean for Diversity and Inclusion's continuing series of talks and workshops: the Diversity, Inclusion, and Racial Equity (DIRE) Dialogs. This series has been effective at sustaining conversations relevant to DEI across the College. The DIRE series has also offered opportunities for faculty and students to learn more and develop skills in this area.
 - d. Offer course content that responds to student interest in DEI. Examples of topics that prepare students for cross-disciplinary work while addressing diverse interests include cross-cultural consulting, environmental justice, extension, and inclusive field research.
5. **Clear guidance to faculty, staff, and students about best practices:** Establishing clear guidance for all members of the FER community to understand

departmental practices and allow space and support for addressing problems may help demystify graduate study.

- a. Develop a series of online SOPs that address decision-points and other issues in graduate programs where guidance is needed for both faculty mentors and graduate students. The DGP and graduate program coordinator are taking the lead on this.
- b. Develop a grievance process that is accessible to URM graduate students who may lack experience in seeking remedies for grievances. The graduate committee will be charged with this.
- c. Compile examples of “PhD pathways” by asking advisors to collaborate with graduating PhD students to contribute descriptions and timelines of their programs, including courses, committees, qualifying and preliminary exams, professional development, dissertation structure, and funding (for stipends, research, and professional development). This request will be integrated with the exit interview process.
- d. Monthly departmental meetings regularly include discussion and training on DEI topics.
- e. Offer faculty training and resources for mentoring students, both through internal department workshops and Center for Improvement in Mentored Experiences for Researchers (CIMER) for selected faculty who will serve as facilitators for training faculty and student-facing staff in mentorship. The trained faculty facilitators will facilitate CIMER training on an annual or bi-annual basis to new faculty as well as to experienced faculty to refresh their mentoring skills.