From Pre-Application Meeting to Post-Admission Questions: A Guide to Applying and Deciding on a PhD Program

The PhD application process can be extremely opaque. The E3B Graduate students have assembled this guide based on experiences of applying to PhD programs. This guide pertains mostly to applying to Ecology and Evolution PhD programs within the United States. This document lays out advice and questions that can be useful for different parts of the application process, starting with meeting with a potential advisor before applying (for advice on how to to set up this meeting, please see our Email Template for Prospective Grad Students to PI) through questions for advisors and graduate students post-admission.

PART A: Preparing for a Meeting with a Potential PhD Advisor

After your initial email, faculty members will usually want to arrange a phone or Zoom meeting to learn more about your background and interest in applying to their lab and department. This may seem intimidating, but remember that this is a conversation about your scientific interests and a chance to evaluate the potential for a good mentor-mentee relationship.

One step you can take to prepare for this meeting is to set up a conversation with a professor at your institution. Tell them your situation, and request to practice this conversation. A professor who knows you can help you practice presenting yourself in a confident and compelling way.

However, there are several things you can do to prepare for this meeting by yourself:

1. Prepare to answer questions

A. Mutual interests

Potential advisors want to know about your intellectual interests and how they compare to theirs. Make note of any topics, questions, and methods (e.g., genomics, spatial modeling, theoretical ecology, remote sensing, bioinformatics, etc.) that are exciting to you, courses you have enjoyed, and future research directions that come to mind.

For discussing mutual interests, an important way to prepare is by reading about a potential advisor's research projects. The best ways to do this are to read the professor's lab webpage and some of their published papers (they're usually linked from lab websites, but if not they can be found on https://scholar.google.com/, https://researchgate.net, or https://pubmed.ncbi.nlm.nih.gov/). Think about and be prepared to discuss particular projects you might be interested in that are related to their work. Questions you may be asked include:

- Tell me a little bit about yourself and your background.

- What are your research interests and why?
- Tell me more about your main research project during your masters and/or undergrad.
- What is an interesting paper you have read recently?
- What do you see as the most important questions in this field today?
- What aspect of the program is of greatest interest to you and why?
- Why is this lab a good fit for you?

B. Skills, Strengths, and Qualities

Show potential advisors why they should invest their time in you. Let them know the qualities you bring to this relationship. Questions you may be asked on this topic may include:

- What past experiences have helped prepare you for graduate school?
    - What was the biggest challenge you have encountered in your research or professional work and how did you deal with it?
- How has your research experience prepared you for graduate school?
    - What questions did you help answer? (Note: it may be helpful to have a specific research project to discuss here).
    - Can you give examples of research troubles or failures that you have encountered? How did you address them?
- What do you think are your strengths and weaknesses, can you highlight them?
    - *The following examples are a few possible strengths—research or language skills, creativity, analytical techniques, programming skills, teaching experience, willingness to learn, enthusiasm, and commitment—though none is a requirement, and there are many other possibilities.*
- Why do you think you will be an asset to the program? To the lab?
- How do your interests and past experiences fit with the goals of the program?
- How do you work best? Independently or with a team?

C. Goals

Professors enjoy working with students who are self-motivated. State your goals (for the PhD and your career goals) as you see them right now.

It may be difficult to name goals for what is a very long process, but perhaps you have skills you want to develop. You do not need to have a particular research project in mind when applying to a PhD program, it is completely acceptable to have skill-based goals. For example, you may want to develop computational or field work skills, and you feel this professor/lab will help you do that. Questions you may be asked include:

- What motivated you to apply to a PhD program? Why now? (*Note: There are many potential answers, but it is important to be able to articulate your reasons*.)
    - Why do you want to pursue a PhD in your area of interest?
- What are you looking to gain from your PhD experience?

- Where do you see yourself in the 5-10 years after the PhD? (*Note: Stating uncertainties is acceptable for this!*)
- What skills do you want to develop in this program? How do you plan to do that?

D. Financial Support

Professors often encourage prospective students to apply for external fellowships to help offset the cost of the PhD. You may therefore hear questions such as:

- Do you know what fellowships you are eligible for?
- Do you plan to apply to any fellowships this year?

E. Handling Illegal or Inappropriate Questions

According to Title VII of the Civil Rights Act of 1964, interview questions are illegal if they pertain to an applicant's: race, color, or national origin; disability; religion; sex, gender identity, or sexual orientation; age or genetic information; disability; religion; pregnancy status; marital status or number of children; and citizenship.

Sometimes professors will ask inappropriate questions, either because they are not thinking about interview protocol or because they are genuinely interested in learning more about you. However, others may be looking for this information because they want to maintain a certain lab culture or funding status. If you are asked illegal or inappropriate questions, it is best to respond in a way that addresses the concerns the professor may be expressing, without giving them the specific information they are looking for (unless you are willing to do so). You are well within your rights to refuse to answer a question. However, it may be worthwhile to prepare a deflection or an answer.

Below are examples of questions that are considered illegal to ask. If you hear questions such as these during the interview, it may be a red flag (i.e., you may want to reconsider working with them). However the questions may be asked legally in a round-about way.

- Where were you born? What is your native language?
    - *The legal version: What languages do you speak, read, or write fluently?*
- Are you a US citizen?
    - *The legal version: Are you authorized to work in the US? Will you now or in the future require visa sponsorship?*
- How long have you lived here? How long have you lived in the US?
    - *The legal version: What is your current address? Do you have any alternative locations where you can be reached?*
- How old are you?
- Are you married?
    - *The legal version: Have you worked or earned a degree under another name?*
- How many children do you have or plan to have?

    - *The legal version: Can you travel for fieldwork? What days can you work? What hours can you work? What are your long-term career plans?*
- Do you have any disabilities? How does your condition affect your abilities?

2. Prepare to ask questions.

Keep in mind, you are deciding whether to work with a potential advisor just as they are deciding whether to work with you. They know this and will be expecting questions from you. Additionally, many faculty use the questions that you ask as a way to gauge your level of preparedness and initiative.

A. Project Development & Management

The main reason you are talking to this professor is because you are interested in developing a project with them. It is important to understand their expectations for conducting day-to-day activities, developing project ideas, and working towards larger project or dissertation milestones. During the meeting, you may want to ask:

- What are current projects going on in the lab?
    - *Hearing about the breadth of research topics and questions in the lab can give you a sense of the potential for developing a dissertation project outside of the professor's main research area or field site. Note: if having this flexibility is of particular importance to you, it may be worthwhile to ask the professor directly later on in the application process, or to ask other graduate students.*
- Can you tell me about your lab set-up?
    - *Be mindful of if the professor has the appropriate space and equipment to address your research questions*.
- Can you tell me about your philosophy on authorship?
- What are expectations for new students in the first year of their program? What is the onboarding process like?
    - *Some advisors may want you to focus on coursework and developing research interests; others may prefer you to hit the ground running on research projects.*

B. Financial Support

It is important to get a sense of whether or not you and your project will be financially supported throughout your dissertation. As a first step, it is a good idea to research doctoral fellowships that you are eligible for. Keep in mind that you may be asked questions about this (see Part A, Section D). As this part of the conversation is happening, you may want to ask:

- What is the funding structure for PhD students in the program/department?
    - *In the United States, it is not typical or acceptable for PhD students to pay tuition or fund themselves out of pocket.*

- Does financial support remain available for students until they complete the program?
- Do the sources of funding for PhD students change throughout your program?
- Do you recommend applying to any additional pre-doctoral fellowships?

If the fellowships you are interested in call for you to write a research grant with this professor (e.g., NSF GRFP), begin thinking about what research questions you want to propose with this professor. You may want to ask them:

- Would you be able to work with me to develop a research proposal for *X* grant?

C. Department & Lab Culture

The department and lab that you join for your PhD will be your home base for 5+ years. It is important to get a sense of the general culture and community within these spaces. You may be interested in finding out whether the professor keeps tabs on the well-being of their students and prioritizes mental health, or if the lab has good relationships with other lab groups in their department and in their field. During the meeting, you may want to ask:

- How many people are a part of your lab at a given time?
- How would you describe the culture of your lab?
- How do your lab meetings run?
- How would you describe the culture of the department as a whole?
- What are the dynamics across labs in the department? Do there tend to be collaborations or joint initiatives across labs, or across other institutions in the area?
- If applicable: What have previous lab members accomplished? Where are they now?

Make note of any follow-up questions and keep these in mind as you plan to talk to former/current students (See Part B). If you feel it would be helpful, you can ask the professor to recommend a current grad student in their lab to talk to. This will help you get more information about the lab, and it will demonstrate to the potential advisor that you are putting in effort to get to know the lab well (See Part B2).

D. Availability

To understand how much time the professor will be able to give to you, ask about their other commitments. Also find out from other students how much time this person normally gives to students (see Part B). You'll need to evaluate whether or not the amount of time the professor alotts to students will be enough for you or even too much for you. Some advisors may be too hands-off for your needs, while others may be too hands-on and inclined to micromanage. Think about how much guidance versus independence will be best for your personality, productivity, and growth as a scientist, and look for an advisor who is a good match for you specifically. You can ask:

- How often do you meet with your graduate students?
- What do your meetings with students usually look like?
- Do you have any plans for sabbatical in the near future? If so, how do you plan on staying in contact with your students?

E. Communication Style

From this initial meeting, you should be able to clearly understand the professor and feel you are able to effectively communicate your thoughts and ideas. Do you think you will be able to work closely with this person? Do they listen attentively to your ideas and concerns, and ask good follow up questions?

PART B: After Meeting with a Potential PhD Advisor

1. Send Follow-Up Communication

Follow-up via e-mail to thank them for their time and let them know that what you learned was fruitful. Initial meetings will probably give you a sense of a person as a potential mentor; however, you do not need to make any decisions immediately! Allow yourself and the potential advisor time to reflect. Let them know of your plans to apply to the program and that you will get back in touch when you submit your application (or sooner if you have further questions).

2. Contact Graduate Students & Postdocs

Make sure to contact several current and past graduate students in the lab (via email), as well as postdocs, to learn more about different perspectives on the lab culture, expectations, and what it's like working in that lab and with that advisor. Current graduate students and emails can usually be found on lab and department websites. Consider asking them to chat on the phone or in-person during a campus visit, as some people may not want to share certain information in writing, so you get a more candid response than by email.

PART C: Interviews and Post-Admission

If you have been given an interview or admitted to a PhD program, congratulations!

As you think about whether you want to commit to a particular advisor, a PhD program, or pursuing a PhD more broadly, there are several important factors to consider. Often prior to admission you will be brought to an on-campus interview. Since the Covid-19 pandemic, some of these traditionally in-person interviews have moved online. Either way, the following questions

are great for when you are farther along in the application process (either doing interviews or after you've been admitted).

1. Learn about expectations

It is important to know what a potential advisor considers to be a normal workload for graduate scholarship. These questions may also be asked to graduate students and postdocs who have experience working with this professor (Step B2), however it is also important to hear about expectations directly from the PI. Questions to ask may include:

- What is your philosophy on work-life balance for your graduate students?
- What are your expectations for time committed to research per week? How does this fluctuate (if at all) with coursework or teaching assistant duties?
    - *Does this align with the time you are willing or able to commit?*
- What is your expectation about graduate students working out of a campus office versus working remotely?
    - *Do they expect you to have certain hours on campus? Or are they fine if you work remotely and during any hours as long as you are being productive?*
- What are your expectations about time off and vacation? *Some advisors can be very strict about this while others are flexible so it's important to establish the expectations right away.*
- Are you ok with students developing their own research system?

2. Learn about graduate student finances and living conditions

Understanding graduate student compensation and how it compares to the cost of living in the location of the University. Though questions about money can seem sensitive, graduate students are often more than willing to talk about money and how it works at their institution. Again, you are considering moving somewhere for 5+ years, and understanding what your financial situation will be while in graduate school is a crucial part of the decision-making process. You can absolutely ask the potential PI all of these questions, but you may find that you'll get more information from current/previous graduate students or departmental administrators as they just tend to be more informed about graduate student compensation. You could ask:

- How much do graduate students typically make in your department?
- Are there institutional fellowships that augment this?
- Do you feel you make enough money to live on?
- Are the graduate students at your institution unionized? What is the status of the union? Are there union dues?
- What does summer funding look like?
- Is funding tied to TAships? How does this play out?

- How do graduate students in your lab typically pay for research supplies? Research-associated travel? Society memberships? Conference attendance?
    - *Note: As a graduate student, you should never have to pay out-of-pocket for these expenses. In some labs/departments, though, graduate students can be expected to front money and subsequently be paid back. It can be useful to understand how this works as this can become a financial burden for some students.*

3. Get a sense of the graduate student morale

These next questions are intended for current and previous graduate students. A PhD program is extremely rewarding, but it is also challenging in a lot of ways. Knowing that you could see yourself being happy at an institution, in a particular city, and with your potential cohort- and lab-mates is an essential part of choosing a PhD program. You can ask about hobbies and recreational activities near the institution. It is completely reasonable to ask:

- Are you happy in your graduate program?
- Did you make friends? How?
- What is it like being a graduate student in [insert city]?
- What do graduate students tend to do for fun at your institution?