

Crossing borders: promoting graduate research in the developing world



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Pursuing graduate-level research in developing countries can be extremely rewarding, but doing so also poses distinct challenges. Students can make choices both before and during graduate school to facilitate successful research projects abroad.

Collectively, the authors of this paper work in East Africa, Central and Southeast Asia, Latin America, and the Caribbean. Prior to graduate school, we worked throughout the world – in the Peace Corps, in undergraduate research programs, and with museums and non-governmental organizations. Although our research interests vary widely and we currently work in different countries and cultures, we have had similar experiences in advancing and maintaining dissertation projects abroad. We hope to provide prospective/current graduate students with a basic framework for establishing and implementing successful research projects in the developing world.

More than half of the biodiversity hotspots identified by Conservation International are located in developing countries (CI 2002), yet relatively little research is conducted in these areas. Many developing countries do not have the resources to address pressing ecological questions. Synergies created by visiting graduate students working with host-country nationals can provide additional funding, materials, and analytical infrastructure that can be used to contend with prominent environmental concerns. Research in developing countries also narrows a geographical knowledge gap in ecology and conservation. Thus, graduate research in the developing world can be mutually beneficial for both the visiting student and for the host country.

Build an academic support network. Before entering a graduate program, seek academic advisors and research programs amenable to students pursuing internationally based projects. Advisors or committee members with direct experience working in developing countries should understand the technical, financial, and cultural issues specific to such an undertaking. They may also have a better appreciation of the political realities and safety considerations of working internationally.

Academic departments and research institutions sup-

porting international study programs may have flexible infrastructure for students conducting fieldwork during the academic year. Also, many universities have established international programs that provide funds for graduate student research in a foreign country. Universities with active natural history museums are often a valuable resource for help with international permitting.

Actions:

- When applying to graduate school and during your interview with your potential advisor, clearly state and discuss your interest in pursuing international research.
- When choosing a graduate program, seek information about infrastructure that allows graduate student research abroad and institutional funding possibilities for foreign-based research.
- If faculty members at your home institution do not have direct experience in your research country, consider selecting committee members from outside your institution who are familiar with your host country.

Seek international counterparts. Strong local support is essential. You will enhance your ability to complete a successful international research project by establishing strong relationships with in-country host institutions, colleagues, and community members. These collaborative relationships can facilitate productive research, allow access to in-country resources and funding agencies, and increase safety while abroad. Most visa applications and international research funding programs will require you to have proof of support from both host-country counterparts and host-country institutions.

Actions:

- Finding international counterparts:
 - ask university colleagues who conduct work in your host country for contact information for prospective collaborators;
 - read country-specific natural history and ecology journals to find potential counterparts.
- Maintaining a relationship:
 - develop a collaborative research project with your host-country counterpart(s);
 - involve local students in your research – create research opportunities related to your project for host-country graduate and undergraduate students.

Funding, timelines, and permitting. Consider the costs and logistics of work before initiating foreign-based research projects. Typically, international research is expensive. Consult with colleagues who have international research experience to ensure that your budgeting decisions are realistic. Time may also be a factor – certain tasks quickly completed at home can often take substantially more time

abroad. The processing time and conditions of acquiring international permits may be prohibitive as well. Factor the potential for delays into proposed research timelines. Strong connections with international counterparts can aid in the permitting process, decrease the amount of time required to complete tasks, and help in finding cost-effective ways to conduct research.

Actions:

- Establish a realistic timeline for your research through discussion with experienced colleagues.
- Determine what permits you will need and begin the acquisition process as soon as possible.
- Utilize in-country expertise and resources when possible and analyze samples in your host country – if it is feasible, leave with your data, not your samples! This will simplify issues pertaining to international shipping and exportation permits.

Cultural awareness. Students interested in international work should embrace the economic, political, and cultural realities of their proposed host country. It is important to acknowledge that gender, race, and sexuality may be viewed differently in your host country, and this may influence your research experience. Furthermore, consider medical and/or dietary requirements that could pose

problems abroad. Learning the language of your host country will allow you to communicate and establish relationships with local colleagues and community members. Finally, be aware that perceptions of ecology and the environment held by host-country nationals may differ from your ideals.

Actions:

- Spend time learning the language(s) of your host country – even a little bit will help enormously, and the effort is often perceived as a worthy gesture.
- Travel with business cards on hand – with your name, title, and contact information – to encourage dialogue and collaboration with new contacts. Bilingual cards are particularly useful.

Working in a foreign country poses distinct logistical and cultural challenges. Yet, conducting research in developing countries can enable students to bridge gaps in ecological knowledge while gaining first-hand experience in cross-cultural collaborations. This exposure will be valuable to scientists who seek to address ecological questions that transcend political boundaries. With foresight and planning, graduate students can prepare themselves to meet the demands of research in the developing world while engaging in a tremendously rewarding experience.

Faculty response



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Capps and colleagues provide valuable advice for graduate students thinking about conducting research in the developing world. As they point out, there are large gaps in ecological knowledge for most developing countries, and working in these countries can be tremendously rewarding. As an advisor, I enjoy having students do research overseas, because they bring novel perspectives into my lab. Nevertheless, as much as I believe in the importance of multicultural experiences, research abroad is not for everyone. For investigators from high-income countries, there are inevitable challenges working in the developing world. Thus, I suggest that students (and others) ask themselves at least three questions as they consider undertaking research in a developing country.

What is my main motivation for carrying out research abroad? Research in a developing country should extend beyond satisfying a romantic vision of the intrepid explorer. Ideally, a decision to undertake research abroad should involve unique questions and opportunities to test them. If the main motivation is a desire to travel to interesting places, then an easier way to achieve that goal might be staying closer to home for your research, combined with explicit plans to take the occasional break during graduate school for a pleasure trip abroad.

Am I likely to become immersed in the cultural experience? I am always incredulous about the researcher who has worked in another country for 20 years and is completely clueless about the local culture and potential professional collaborations in the host country. Cultural sensitivity begins with an interest in the local culture. Confront whether you are dedicated to learning another language. Establishing genuine collaborations that are useful not only to you, but also to colleagues in the host country, is a fundamental element of working abroad.

Can I “go with the flow” of working in a developing country? For a researcher from a high-income country, working in the developing world is almost always a greater hassle than doing so in your home country. I make rule of thumb estimates for how long something will take abroad versus how long it will take at home. Such estimates vary enormously, but can be three to four times as long; for many developing countries, everything takes more time, for a variety of reasons, including a lack of resources, inefficient bureaucracies, your own cultural inexperience, and so on. Be prepared for what can feel like wasted time, and ask yourself whether you are going to be able to adapt to working in the context of different cultural norms and expectations.

Hopefully, many young scientists are interested in novel scientific opportunities in developing countries and will savor the cultural experience and unique collaborations. For those who are ready for the challenges – go for it.

References

- CI (Conservation International). 2002. Biodiversity hotspots map. www.biodiversityhotspots.org/xp/Hotspots/pages/map.aspx. Viewed 12 Nov 2008.