# Cover Art

**Background**: Panorama of Central Andes Mountains, Salar de Arizaro, Argentina. The image transitions from the *Puna* (High Andes) to the *Sierra Pampeanas* and *Pampas*. Courtesy of NASA Earth Observatory

**Foreground**: Biodiversity has always been difficult to define. All of the contributors to this issue are inherently dedicated to researching and understanding the conservation of biodiversity. Each research project represented in this issue is studying and working with a multi-faceted definition of biodiversity.

janellwisecup
design, illustration & web



APPLIED BIODIVERSITY SCIENCE



Phone: (979) 845-7494
Fax: (979) 845-4096
Email: absigert@tamu.edu
Editor: wallen003@tamu.edu

Applied Biodiversity Science NSF-IGERT Program
Texas A&M University
2258 TAMU
College Station, TX, 77843







Applied Biodiversity Science Perspectives Series

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# Our Perspective

## Communicating Applied Biodiversity Science

You might have a favorite science writer. Mine are David Quammen, Bill Bryson, Carl Sagan, and Tim Flannery. Others may be more inclined to read Pulitzer Prize-winning and nominated authors like Jonathan Weiner, Siddhartha Mukherjee, or James Gleick, MacArthur-fellow Atul Gawande, or consummate greats like E. O. Wilson, Richard Dawkins, Stephen J. Gould, and Oliver Sacks. Or perhaps books aren't all you're interested in. In that case you may be a fan of Carl Zimmer's blogging or the stories and editorials from journalists/authors Malcolm Gladwell or Stephen J. Dubner.

It's likely you've read at least one of these authors. Like most readers you were probably impressed by how well they articulated the complexities and subtleties of their topic: everything from astrophysics to evolution, cancer, neurology, chaos theory, economics, and psychology. If you find an author who draws you into a topic that wouldn't otherwise gain your attention, particularly an unfamiliar scientific discipline, *take notice*. Take stock of what they have accomplished by gaining your interest and curiosity. As George Gopen and Judith Swan stated for their 1990 article for American Scientific, "*the fundamental purpose of scientific discourse is not the mere presentation of information and thought, but rather its actual communication*." Good communication requires gaining the reader's attention. Attention requires garnering interest and curiosity.

In our ever-connected world with vast communication and social networking ability, we have the ability to do just that. We possess the tools to communicate science to a diversity of people in a diversity of ways. A foundational component of the Applied Biodiversity Science Program (ABS) is to communicate across scientific disciplines with various institutional actors to facilitate broader impacts across the realm of conservation. In essence, the ABS Program seeks to produce applied scientists who can communicate effectively across disciplines. A natural corollary of this goal is the ability to communicate science outside the realm of science. The ABS Perspectives Series is intended to communicate more broadly and inclusively who we are, what we study, where we conduct research, how we conduct research, and why we are doing it. This, the 4th issue of the ABS Perspectives Series, features experiences from the Caribbean, the United States, Sénégal, Ecuador, Nicaragua, and Costa Rica. Contributions cover topics ranging from captive parrot re-wilding with pirates to blogging in the Nicaraguan forest with limited internet access.

Perhaps more importantly, the Perspective Series wants to reach out and share ABS student and faculty experiences with a diverse readership to raise awareness of biodiversity conservation issues. Outreach is an important axiom of actionable science, especially outreach that informs, improves and influences management and policy. I consider the ABS Perspectives Series an outreach initiative to communicate the ABS mission to the general public, communities where our research has been conducted, fellow academics and practitioners, and institutions that can provide logistics, infrastructure, and support. We must intend to make and practice making our research accessible and intriguing to everyone.

I would like to thank Texas A&M University and the ABS Program for their support. Most importantly, I must thank our marvelous contributing authors for their dedication and willingness to share their experiences and perspectives with the rest of us.

*Kenneth E Wallen*





**Dr. Donald Brightsmith**

**Dr. Lee Fitzgerald**

**Dr. Amanda Stronza**

# Directors' Note

As I read through the essays of the ABS Perspectives series I feel truly honored to be a part of the Applied Biodiversity Science Program here at Texas A&M University. The program has brought together a unique group of faculty and students, united by their interest in conservation science. Upon arrival at Texas A&M University in 2006, I was immediately contacted by the program founders Lee Fitzgerald and Amanda Stronza and told of their plans to create the Applied Biodiversity Science Program through an NSF-IGERT training grant. When we heard that the grant was successful, I had no idea what it would mean for conservation science at Texas A&M University or for my professional development. The ABS program has allowed me to co-create and teach the Amazon Field School, an applied field course which takes ABS students out to the field in the Tambopata Region of southeastern Peru. The region is one of the most biodiverse on the planet and the primary site for my macaw research since 1999. The teaching of this course, along with Drs. Stronza and Fitzgerald not only has allowed me to share my knowledge with all of the ABS student cohorts; it has also allowed me to learn so much from these incredible students and from my co-instructors. In particular, I am eternally grateful to Dr. Stronza for providing me real-world insights in to the human side of biodiversity conservation.

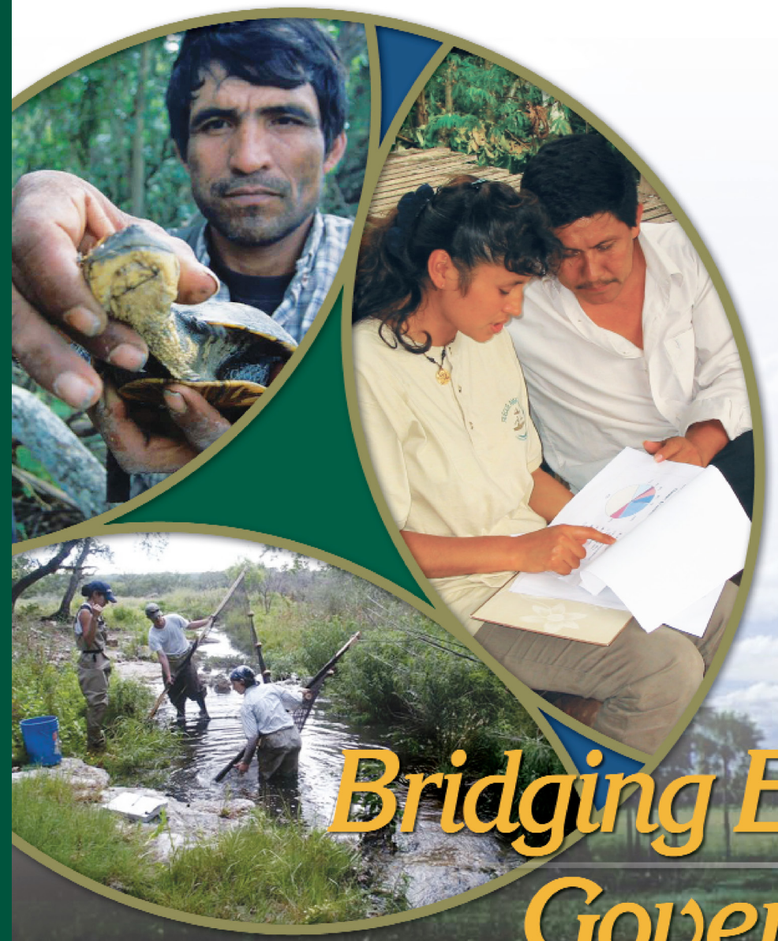
As a graduate training program, the ABS program was created, organized, and implemented by faculty. However, by bringing together so many incredibly bright and motivated students the program has taken on a life of its own. And nowhere is this clearer than in the pages of this the 4th edition of the ABS Perspectives. It is so encouraging to see the interdisciplinary collaborations we hoped to create as faculty take life through the students working in Central America and to see the perspectives and methods discussed during the ABS courses and the Amazon Field School reflected in research projects from across the Americas. It is also very rewarding that the students whose work graces the following pages have truly embraced the core principles of ABS. They know that their research must have impact beyond the scientific journals and must impact local stakeholders, general audiences, and those in positions to affect real conservation change.

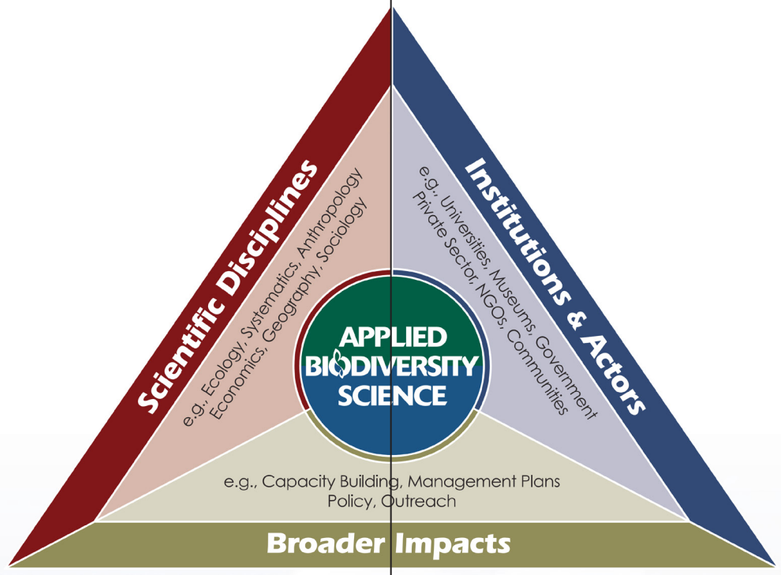
With this I would like to congratulate our editor Kenneth Wallen and all of the contributors for creating this 4th volume in the ABS Perspectives series.

*Dr Donald J Brightsmith*

# APPLIED BIODIVERSITY SCIENCE

The vision of the Applied Biodiversity Science (ABS) Program is to integrate biodiversity research and on-the-ground conservation practices.






## The ABS Program's Three Pillars

- Research in Natural and Social Sciences
- Collaboration with Conservation Institutions and Actors in the Field
- Application of Conservation Theory to Practice


Research teams of students and faculty collaborate with international partners in one of four regions of Latin America. They develop complementary dissertations related to:

- Ecological Functions and Biodiversity
- Communities and Governance

# Bridging Ecology, Culture, & Governance for Effective Conservation

## The Applied Biodiversity Science NSF-IGERT Program is open to all doctoral students at Texas A&M University.

### ABS Program Integrative Activities:

- Multidisciplinary graduate curriculum
- Amazon field school
- Annual research conference
- Cross-cultural leadership training
- Seminar series and journal club
- Internships at host country institutions

## Funded NSF-IGERT Traineeships Are Available

See the ABS website for application information and deadlines.

APPLIED BIODIVERSITY SCIENCE

NSF-IGERT Program

**OFFICE**
Phone: (979) 845-7494
Fax: (979) 845-4096
Email: absigert@tamu.edu

**ADDRESS**
Applied Biodiversity Science
NSF-IGERT Program
Texas A&M University
216 Old Heep Bldg.
2258 TAMU
College Station, TX, 77843-2258

**WEBSITE**
http://biodiversity.tamu.edu

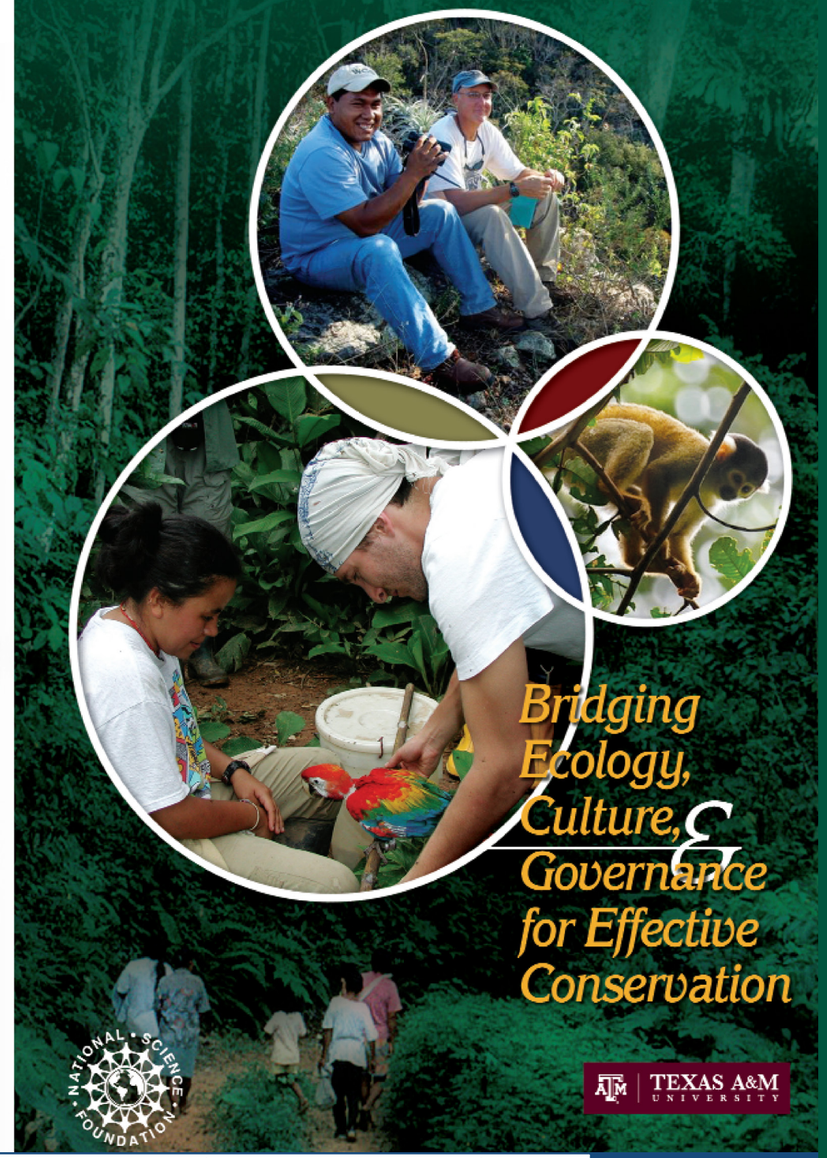




APPLIED BIODIVERSITY SCIENCE

# NSF-IGERT doctoral program

## TEXAS A&M UNIVERSITY



## Bridging Ecology, Culture, & Governance for Effective Conservation

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