

**ANNUAL REPORT: June 1, 2009 – May 31, 2010**  
**(i.e., Summer 2009, AY 2009-2010)**  
**DEPARTMENT OF ENVIRONMENTAL AND FOREST BIOLOGY**  
**SUNY-ESF**

**NAME: James P. Gibbs**

**I. INSTRUCTIONAL ACTIVITIES**

1. Regular Course Offerings

<u>Course No.</u>	<u>Title</u>	<u>Credit Hrs.</u>	<u>No. Students</u>	<u>No. of Lab. Sections</u>
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SUMMER: EFB 384 Field herpetology 3 cr, 18 students

FALL: EFB 485 Herpetology, 3 cr., 79 students

SPRING: EFB 413 Introduction to Conservation Biology 3 cr, 103 students  
EFB 419 Problem solving in conservation biology 3 cr. 41 students

2. Non-Scheduled Course Offerings (e.g., 496, 899, 999)

<u>Course No.</u>	<u>Title</u>	<u>Credit Hrs.</u>	<u>No. Students</u>
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3. Continuing Education and Extension (short courses, workshops, etc.)

4. Guest Lecture Activities

<u>Course No.</u>	<u>Title</u>	<u>No. of Lectures</u>
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Global Environment, "Biodiversity and conservation biology" 11/18

Global Environment, "Biodiversity and conservation biology" 4/21

Freshman Seminar, "Conservation biology" 12/1 & 12/2

Environmental Impact Analysis: Principles and strategies "Monitoring animals" 3/23

**II. STUDENT ADVISING**

A. Number of undergraduates for whom you are the student's official advisor 38 and unofficial advisor \_\_\_\_\_

B. Graduate Students: (Name, degree sought, starting date, month & year; if a degree was completed, please give date and full citation for the thesis or dissertation).

MAJOR PROFESSOR

1. Mike Fishman (9/05, MS)
2. Sam Quinn (9/07, MS, "*Factors influencing distribution of the eastern hellbender in the northern segment of its range,*" completed Dec. 2009)
3. Kevin T. Shoemaker (1/08, PhD)
4. Murray Launtner (8/07, PhD)
5. Andrew Myers (1/09, MS)

6. Kristin Winchell (1/09, MS, Columbia U.)
7. Angela Sirois (9/07, MS)
8. Elizabeth Hunter (9/09 MS)
9. Meredith Atwood (9/09, MS)
10. Jason Townsend (9/06, PhD)
11. James Arrigoni (9/09, PhD)

CO-MAJOR PROFESSOR

MEMBER, STEERING COMMITTEE (other than those listed above)

1. Viorel Popescu PhD (Maine)
2. Oscar Pinedo (Columbia)
3. Andrew McDuff, MS
4. David Williams PhD
5. Amy Dechan, PhD
6. Cynthia Watson, PhD
7. Matthew Buff, PhD
8. William Hellenbrook, PhD
9. Juan Carlos Alvarez-Yepiz, PhD
10. Katherina Bendz Searing, PhD
11. Christine Boser, MS
12. Hara Woltz PhD (Columbia)
13. Jaime Johns, MS
14. Jessica Bohn, MS
15. Portia Osborn, MS
16. Sara Hansen, MS
17. Robin Holevinski, PhD
18. Sara Scanga, PhD

POST-DOCS, VISITING SCHOLARS AND OTHERS FOR WHOM I HAD RESPONSIBILITY VIA PAYROLL, ADVISING, MENTORING, ETC.

Dr. Geri Tierney (since 9/04 to present) – NPS ecological monitoring project (throughout year)

Fernando Rodrigues (PhD candidate) - Visiting Scholar from the São Paulo State University, Brazil (9/09-2/10)

Dr. Javier Zabala - Visiting Scholar from the Centro de Biodiversidad de Euskadi, Spain (9/09)

Drs. Oskar Burger, Han Overman, Josefien Demer, Jeffrey Luzar – supported under Project Fauna Guyana (throughout year)

CHAIRMAN OR READER ON THESIS EXAMS, ETC.

Kaity Cheng, M.S., FMRN

**III. RESEARCH COMPLETED OR UNDERWAY**

- A. Departmental Research (unsupported, boot-legged; title - % time spent)

B. 1. Grant-supported Research (source, subject, amount - total award and current year, award period starting and ending dates; list graduate research assistants supported by each grant)

- National Geographic Society, "'Understanding interactions among three globally endangered species -- the waved albatross, giant tortoise, and giant tree cactus -- to inform conservation management of Española Island, Galápagos." James P. Gibbs, Eleanor Sterling, Kate Huyvaert, Washington Tapia, and Felipe Cruz, \$21,500, 1/1/10-12/31/11.
- National Geographic Society, "Seed dispersal effectiveness in an island megaherbivore: The Giant Galapagos tortoise," Steve Blake, Martin Wikelski, Mark Gardner, James P. Gibbs, \$21,500, 1/1/10-12/31/11.
- Population Assessment of Giant Tortoise, Tree Cactus and Waved Albatross on Española Island, Galapagos. Galapagos Conservancy, James P. Gibbs, \$32,136, 2/1/10-1/30/11.
- Restoration of Pinta Island through the Re-introduction of Giant Tortoises: Phase I Post-release Tortoise and Plant Community Monitoring, James P. Gibbs, \$77,082, 2/1/10-1/30/11.
- National Science Foundation, "Ultra-Ex: Positioning Rust-Belt Cities for a Sustainable Future: A Systems Approach to Enhancing Urban Quality of Life" M. Hall and C. Nowak; "Squirrelmapper.org" subproject to James Gibbs, \$13,000, 10/1/09- 3/31/12.
- Sloan Foundation, "Professional Science Masters Program at the SUNY College of Environmental Science and Forestry," Scott Shannon, Gary M. Scott; James P. Gibbs; Kenneth J. Tiss; Shijie Liu; Susan E. Anagnost. \$15,000. 5/09-5/10
- New York State Department of Conservation: "Population status and foraging ecology of eastern coyotes in New York State." Jacqueline L. Frair, James P. Gibbs, Gordon R. Batcheller, \$678,704, 1/06-9/11.
- New York State Department of Conservation: "Bog Turtle Dispersal and Population Monitoring," J. P. Gibbs and L. B. Smart. \$155,000. 4/06 – 3/09 *extended to March 2011*.
- National Science Foundation, "Biodiversity dynamics and land-use changes in the Amazon: Multi-scale interactions between ecological systems and resource-use decisions by indigenous peoples," J. M. V. Fragoso, J. P. Gibbs, K. Silvius, L. Martins, J. Read. \$1,650,001. 9/05-8-09. *Extended to Feb 2011*.
- Northern States Research Cooperative, "Importance of calcium-rich substrates for supporting refugia of biodiversity and productivity in an increasingly acidified landscape," Colin Beier, Myron Mitchell, James Gibbs, Donald Leopold, Martin Dovciak, \$41,543, 2009-2010
- SUNY-ESF McIntire-Stennis Research Program Proposal, "Restoring Small, Ephemeral Wetlands in Forested Landscapes of New York State: Initiating a Large-scale, Long-term Collaborative Research Program Based at the Heiberg Forest," James P. Gibbs, John C. Stella, Kimberly L. Schulz, Donald J. Leopold, 1/09-12/12, \$89,850.
- National Fish and Wildlife Foundation, "Golf Course Wetlands as Refuges for Turtles," J. P. Gibbs, \$60,000, 12/08-12/11.
- U.S. National Park Service: "Vital Signs Monitoring of the Northeast Temperate Parks," J. P. Gibbs and G. Tierney (since 2001); current projects as follows:  
"Phase III: Development of Terrestrial and Related monitoring Protocols for High Priority NETN Vital Signs," 7/1/03-12/3/107, \$83,729 (augmented \$28,931 1/09, and extended 12/10).  
"Monitoring Ecological Integrity of Forest Ecosystems: Evaluation and Implementation of the NETN Forest Condition Protocol" 7/1/2009-6/30/2010. \$49,493

2. Research Proposals pending (as in B.1., above)

**IV. PUBLICATIONS** (Full bibliographic citation, i.e., do not use "with Jones," or "Jones, et al."; please list only publications published, in press, or actually submitted during this reporting period --- **do not list manuscripts in preparation**).

A. Refereed Publications

- Patrick, DA and Gibbs, JP. 2010. Population structure and movements of freshwater turtles across a road-density gradient. *LANDSCAPE ECOLOGY* 25:791-801.
- Shoemaker, KT, and Gibbs, JP. 2010. Evaluating Basking-Habitat Deficiency in the Threatened Eastern Massasauga Rattlesnake. *JOURNAL OF WILDLIFE MANAGEMENT* 74:504-513.
- Gibbs, JP, Sterling, EJ, Zabala, FJ. 2010. Giant Tortoises as Ecological Engineers: A Long-term Quasi-experiment in the Galapagos Islands. *BIOTROPICA* 42: 208-214.
- Russello, MA, Poulakakis, N, Gibbs, JP, Tapia, W, Benavides, E, Powell, JR, Caccone, A. 2010. DNA from the Past Informs Ex Situ Conservation for the Future: An "Extinct" Species of Galapagos Tortoise Identified in Captivity. 5:e8683.
- Patrick, DA and Gibbs, JP. 2009. Snake Occurrences in Grassland Associated with Road versus Forest Edges. *JOURNAL OF HERPETOLOGY* 43:716- 720.
- Chiari, Y, Hyseni, C, Fritts, TH, Glaberman, S, Marquez, C, Gibbs, JP, Claude, J, Caccone, A. 2009. Morphometrics Parallel Genetics in a Newly Discovered and Endangered Taxon of Galapagos Tortoise. *PLOS ONE* 4: e6272

B. Non-refereed Publications

C. Papers Presented at Science Meetings (give title, date, occasion, and location)

"Monitoring Biological Diversity in Galapagos: Challenges and Pitfalls," 7/21, invited keynote for International symposium: "Charles Darwin Foundation: 50 years of Science for Galapagos," Puerto Ayora, Galapagos.

D. Public Service Presentations (lectures, seminars, etc. to and for the public; give group or occasion, date(s), and attendance)

"Ecology, evolution and conservation of giant Galapagos tortoises," invited College-wide "Ecology" seminar, University of Rhode Island, Kingston, RI, 12/7, ~60 attendees

"Ecology, evolution and conservation of giant Galapagos tortoises," invited College-wide "Ecology" seminar, Pennsylvania State University, State College, PA, 2/8, ~45 attendees

"Ecology, evolution and conservation of giant Galapagos tortoises," invited College-wide seminar, Paul Smiths College, Paul Smiths, NY 10/2, ~150 attendees

"Update on tortoise research," Association of Galapagos Guides, Pto. Ayora, Galapagos, 7/25, 12 attendees.

"Synopsis of the "Charles Darwin Foundation: 50 years of Science for Galapagos" Symposium," U.S. Embassy, Quito, Ecuador. 8/27, ~35 attendees.

"Amphibians and reptiles," Antique Boat Museum, Clayton, NY, 9/4, ~35 attendees.

"Conservation in Siberian Altai: Starting from Scratch," The Wildlife Society, ESF student chapter, Syracuse, NY, 12/8. ~ 25 attendees.

**V. PUBLIC SERVICE**

A. Funded Service (include consulting activities)

1. Government Agencies (Federal, State, Local):

National Environmental Management Council, United Republic of Tanzania/World Bank, Workshop on preparation of guidelines for reintroduction of Kihansi spray toad. Participant and Session Chair. Dar es Salaam, Tanzania. 2/25-27/10.

2. Industrial and Commercial Groups, etc.

General Electric Corporation, Inc.: Herpetological and colonial waterbird assessment on the Upper Hudson River (5/06 - present)

Ecological survey of Oakenkroft property, Nelson Byrd Woltz Landscape Architects, 5/09 (w/ D.J. Leopold and 15 ESF grads and undergrads)

B. Unfunded Service to Governmental Agencies, Public Interest Groups, etc.

“Equipo Asesor en Herpetología/Advisory Team in herpetology” to Galapagos National Park Service, Member, appointed 1 year term, 10/10.

Instituto Ecologia/SUNY-ESF collaborative mission, Xalapa, Mexico, 3/14-3/17 (with 6 ESF faculty, subsequently appointed to Comité Externo de Evaluación del INECOL/external evaluation committee, for 6 year term).

Vice Chair, Altai Assistance Project (Wadhams, NY, USA/Gorno-Altai, Altai Republic, Russia), (elected 3/09, 2-year term)

Member, Chittenango Ovale Amber Snail recovery team (2002-present)

Nine Mile Creek Conservation Council, Council Member, Camillus, New York (2001-present).

Board member, The Wetlands Trust (2009-present)

**VI. PROFESSIONAL DEVELOPMENT**

A. Professional Honors and Awards (for teaching, research, outreach, etc.)

B. 1. Activities in Professional Organizations (offices held, service as chairman, member, participant or consultant)

2. Professional Society Membership

Society for Conservation Biology

3. Other Professional Activities

a. Editorial activity

Journal (s)

Responsibility

Other (books, symposia, etc.)

b. Reviewer

<u>Journal(s)</u>	<u>No. of manuscripts</u>
<u>Agency</u>	<u>No. of proposals</u>
<u>Other</u>	

[I regret that I did not record reviewing activity again this year]

c. Participation (workshops, symposia, etc.)

<u>Name of workshop, etc.</u>	<u>Date</u>	<u>Place</u>
Altai Alliance meeting, Brower Center, Earth Island Institute, Berkeley, CA	2/10-2/11	

C. Further Education/Re-training Undertaken, Leaves, Workshops, etc.

D. Foreign Travel (Where, When, Purpose)

Galapagos, Ecuador and Quito, Ecuador 7/17-8/14 to present invited keystone presentation at Galapagos Science Symposium, advise Charles Darwin Foundation (CDF) associated graduate students as part of my CDF adjunct responsibilities, and present to US Embassy synthesis of symposium (funded by CDF)

Barnaul/Gorno Altaisk/Onguday, Altai Republic, Siberia, Russia 10/17-11/7 to generate proposals and projects for Foundation for Sustainable Development of Altai and its supporters and partners (funded by Altai Assistance Project)

Dar es Salaam, Tanzania 2/19-2/28 to participate with invited group of experts in developing guidelines for reintroduction of Kihansi spray toad to its native habitat in Tanzania (funded by NEMC)

Xalapa, Mexico 3/14-3/17 to participate in INECOL/ESF mission to establish collaborative areas of research, training and outreach (funded by INECOL).

**VII. ADMINISTRATIVE AND SERVICE RESPONSIBILITIES (include committee participation)**

A. Department-level

Coordinator, Conservation Biology Major

Coordinator, Internships

Member, Course and Curriculum Assessment Committee

Member, Promotion and Tenure Committee

Co-chair, Informal biology educator search (with Norton)

Associate Chair

B. College-level

C. University-wide, including Research Foundation

**VIII. SUMMARY OF SIGNIFICANT ACTIVITIES AND ACCOMPLISHMENTS DURING THIS**

**REPORTING PERIOD, ESPECIALLY THOSE MOST NOTEWORTHY AND RELATIVE TO THE COLLEGE'S AND DEPARTMENT'S MISSION.**

At the Departmental level I continue to serve as Coordinator for the Conservation Biology undergraduate major, which is enjoying healthy growth. I offer two of the Major's three core courses for undergraduates, and advise about 40 undergraduate. I also teach at our Cranberry Lake Field Station, now for the 14th consecutive year, to contribute to the field component of our teaching program. As internship coordinator for EFB I spend much time helping many EFB students from all majors find and receive academic credit for professional experiences, this year aided by a resurrection of the ESF/NYS-DEC internship program. I was appointed Assoc. Chair in January but was slow to start making contributions in that role but anticipate starting soon a productivity benchmarking survey to provide context for our Department's activities. I also co-chaired (with Norton) a search for a new informal biology educator faculty position. On the research and outreach front, we have launched with good success a major constructed small wetlands project at Heiberg Forest that involves many collaborations and created opportunities for others to leverage significant research grants to work within the network of constructed pools. I remain preoccupied overseeing the financial aspects of a large Guyana-based NSF "biocomplexity" grant relocated to ESF two years ago and extended for another year. I am also an active as an adjunct scientist with the Charles Darwin Foundation, advising on various matters, and secured funding for two very exciting projects to be initiated in 2010 and focused on using giant tortoises as ecological analogs to jumpstart restoration of island ecosystems. I remain involved with conservation of the Kihansi spray toad in Tanzania, participating in a workshop this spring in Dar es Salaam developing guidelines for reintroducing the animals to the wild, and also actively involved with a NGO (Altai Assistance Project, as Vice Chair) generating support for conserving the biological and cultural riches of the Altai region of Russia. Software I developed for designing monitoring programs (Program Monitor) was released this year after a year of reprogramming (with E. Ene). Last we also developed and will launch in the fall season a web-based squirrel morph reporting scheme focused on getting citizen scientists to think about contemporary evolution as part of ESF's NSF ULTRA project.

**IX. A. FUTURE PLANS, AMBITIONS, AND POTENTIAL CONTRIBUTIONS FOR YOUR OWN PROFESSIONAL DEVELOPMENT AND THE ENHANCEMENT OF THE PROGRAM IN ENVIRONMENTAL AND FOREST BIOLOGY (brief summary)**

**B. PROJECTED ACTIVITIES FOR NEXT YEAR**

1. Summer 2009

a. Course(s) to be offered

Field herpetology

b. Proposed research activity

Oversee various grad projects and pull together tortoise research

c. University, professional society, and public service

Initiate productivity benchmarking effort for EFB.

2. Fall Semester 2009

a. Course(s) to be offered

Herpetology

b. Proposed research activity

c. University, Professional society, and public service

3. Spring Semester 2010

a. Course(s) to be offered

Intro Conservation Biology

Problem-solving in Conservation Biology

b. Proposed research activity

c. University, professional society, and public service