

Theresa Stratmann

PhD Student

Goethe-Universität Frankfurt am Main
& Senckenberg Biodiversity and Climate Research Centre (BiK-F)
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EDUCATION

Master of Science in Wildlife and Fisheries Biology

Clemson University, 2015

Bachelor of Science in Ecology, *Minor in Mathematics*

Honors Student, graduating *summa cum laude*

The University of Georgia (UGA), 2013

HONORS

Stipendiat (Scholarship) – Polytechnische Gesellschaft Frankfurt am Main, 2016-2018

NSF Graduate Research Fellowship, Honorable Mention, 2014

Goldwater Scholar, 2012

Udall Scholar, 2012

GRANTS

Bern W. Tryon Bog Turtle Grant Fund. Finding and Characterizing Habitat for Rare and/or Cryptic Species: A Case Study of Bog Turtles (*Glyptemys muhlenbergii*). 2014. **\$2000**

South Carolina Department of Natural Resources. Status assessment for bog turtles (*Glyptemys muhlenbergii*) in South Carolina. 2013. **\$7,000**

Riverbanks Zoo Conservation Support Fund. Modeling the Haystack to Find the Needle: Developing Methods to Locate and Survey for Rare Species, A Case Study of Bog Turtles (*Glyptemys muhlenbergii*). 2013. **\$4,997**

PUBLICATIONS

Stratmann, T., T. Floyd, and K. Barrett. 2020. Habitat and history influence abundance of bog turtles. *The Journal of Wildlife Management*. 84: 331-343.

<https://doi.org/10.1002/jwmg.21793>

Nandintsetseg, D, Bracis, C, Olson, KA, ... **Stratmann, T.**, Mueller, T. Challenges in the conservation of wide-ranging nomadic species. *J Appl Ecol*. 2019; 56: 1916– 1926.

<https://doi.org/10.1111/1365-2664.13380>

Stratmann, T., T. Floyd, and K. Barrett. 2016. Locating rare habitat for a rare species: evaluation of a species distribution model for Bog Turtles (*Glyptemys muhlenbergii*) in the southeastern United States. *Herpetological Conservation and Biology*. 11(1): 199-213.

Munscher, E., A. Walde, **T. Stratmann**, and B. Butterfield. 2015. Exceptional Growth Rates Observed in Immature *Pseudemys* from a Protected Spring System in Florida. *Herpetology Notes*. 8: 133-140.

Pierson, T., **T. Stratmann**, E. White, A. Clause, C. Carter, M. Herr, A. Jenkins, H. Vogel, M. Knoerr, and B. Folt. 2014. New County Records of Amphibians and Reptiles Resulting from a Bioblitz Competition in North-Central Georgia, USA. *Herpetological Review*. 45(2): 296-297.

Floyd, T.M., **T.S.M. Stratmann**, G.J. Brown, III, and C.S. Pfaff. 2013. *Cryptobranchus alleganiensis alleganiensis*. *Terrestrial Movement*. *Herpetological Review*. 44(4):651.

Stratmann T. and S. Pfaff. 2011. Geographic Distribution Note for *Lampropeltis elapsoides*. *Herpetological Review*. 42(4):572-573.

SELECTED PRESENTATIONS AND POSTERS

Floyd, T. and **T.S.M. Stratmann***. 2018. Status of the Bog Turtle (*Glyptemys muhlenbergii*) and Southern Appalachian Mountain Fen Habitats in Georgia and South Carolina.

2018 Range Wide Bog Turtle Symposium. **Presentation** (*joint talk).

Stratmann, T., M. Forrest, T. Hickler, A. Pachzelt, T. Müller. 2017. Combining vegetation and movement models to explore linkages between motion- and carrying capacity. *Ecology Across Borders: Joint Annual Meeting of the British Ecological Society, the Ecological Society of Germany, Austria and Switzerland, the Netherlands-Flanders Ecological Society, and the European Ecological Federation*. Ghent, Belgium. **Presentation**

Stratmann, T., E. Munscher, A. Walde, N. Salvatico, S. Ross, B. Butterfield, M. Farris, B. Hauge. 2017. Exceptional Growth Rates in the Genus *Pseudemys*, a Look at Growth during the Maturation Phase Using New Data on *Pseudemys texana* and *P. c. suwanniensi*. 15th Annual Symposium on the Conservation and Biology of Tortoises and Freshwater Turtles. Charleston, South Carolina, USA. **Presentation**.

Stratmann, T. D. Armstrong, A. Walde, E. Munscher. 2016. Understanding growth rates of *Pseudemys peninsularis* and *Pseudemys nelsoni* from a spring system in Florida, U.S.A. 14th Annual Symposium on the Conservation and Biology of Tortoises and Freshwater Turtles. New Orleans, Louisiana, USA. **Presentation.**

Stratmann, T., K. Barrett, T. Floyd. 2014. A Status Update for Bog Turtles (*Glyptemys muhlenbergii*) in Georgia and South Carolina. Project Bog Turtle Annual Meeting. Asheboro, NC. **Presentation.**

Stratmann, T., K. Barrett, T. Floyd. 2014. A Status Update for Bog Turtles (*Glyptemys muhlenbergii*) in Georgia and South Carolina. 12th Annual Symposium on the Conservation and Biology of Tortoises and Freshwater Turtles, Joint Annual Meeting of the Turtle Survival Alliance and IUCN Tortoise & Freshwater Turtle Specialist Group, Orland, FL. **Presentation.**

Stratmann, T., J.C. Maerz, K. Barrett, T. Floyd, N. Nibbelink, and J. Hickey. 2013. Monitoring Rare Species: Developing methods to Locate and Survey for the Endangered Bog Turtle (*Glyptemys muhlenbergii*). Council on Undergraduate Research's Posters on the Hill. Washington, D.C. **Poster***.

**I was one of 60 students across the US chosen to participate in this event in Washington D.C. We traveled to Capitol Hill to talk to our senators and state representatives about the importance of undergraduate research, both through in-person meetings and a poster session for members of Congress in the Rayburn Office Building on Capitol Hill.*

Stratmann, T., J.C. Maerz, K. Barrett, T. Floyd, N. Nibbelink, and J. Hickey. 2013. Modeling the Haystack to Find the Needle: Developing Methods to Locate and Survey for Bog Turtles (*Glyptemys muhlenbergii*). 11th Annual Symposium on the Conservation and Biology of Tortoises and Freshwater Turtles, Joint Annual Meeting of the Turtle Survival Alliance and IUCN Tortoise & Freshwater Turtle Specialist Group, St. Louis, MO. **Presentation.**

PROFESSIONAL EXPERIENCE

Junior Co-Chair for SEPARC

February 2014 - February 2015

- Multi-state organization composed of scientists, naturalists, government representatives and citizens that are devoted to the preservation of amphibian and reptile populations in the southeastern United States.
- Conference planning and organization.
- I helped guided planning and creation of various products: webinars, workshops, informational products

Intern, Turtle Survival Alliance's Turtle Survival Center

May 28-August 2, 2013

- Animal husbandry for some of the world's most endangered turtles (including 14 of the 40 most endangered turtles of the world)
- Facility construction (plumbing, installation of drainage field, painting)

- General set up, organization, and site maintenance (e.g. creation of data sheets, computer support)

Wildlife Technician, Georgia Department of Natural Resources (GA DNR)

May 14-August 4, 2010

May 16-August 3, 2012

- Surveying for and monitoring bog turtle (*Glyptemys muhlenburgii*) populations
- Radio-tracking bog turtles
- Surveying for hellbenders (*Cryptobranchus alleganiensis*) in northern Georgia
- Small mammal trapping to survey for Bog Lemmings (*Synaptomys cooperi*)
- Bog restoration: management of woody vegetation through cambium torching & barbed wire fence construction to control disturbance by cows

Summer Field Technician for the Coweeta LTER

May – July 2011

- Conducted sampling, mark/recapture, and data entry for a project on the long-term monitoring of stream salamanders and aquatic invertebrates, in a larger project looking at the impacts of habitat loss and climate change.

LEADERSHIP

Senckenberg Young Scientists

Main Speaker

June 2018 to June 2020, Senckenberg

- The Young Scientists is the graduate student organization which represents all graduate students from the 6 different institutes and 3 museums that are part of Senckenberg. We organize the graduate students across locations so we can work together with the Board of Directors to improve working conditions for graduate students.
- As main speaker I organize and lead monthly meetings, help determine what projects we work on, help organize our yearly retreat, and represent the graduate students on the Scientists Advisory Panel to the Board of Directors as well as in meetings with the Board of Directors.

Young Modellers in Ecology

Workshop Organization Team, Secretary

May 2016 to May 2018, Gesellschaft für Ökologie

- This is a student run, multi-national organization of bachelors, masters, and PhD students that work in ecological modelling. The goal of the organization is to facilitate exchange of experiences in ranging from the technical aspects of writing code to achieving a career as a scientist and everything in between. We do this through an online platform, networking opportunities, and hosting a yearly workshop. Student members come from universities in Germany, Austria, and Switzerland.
- The past two years I have helped to organize the annual workshop. For this we plan 3-4 days of key note speakers, student talks and posters, and workshops on the technical aspects of modelling. I am also the secretary for this organization.

Natural Resources Graduate Student Association

President

May 2014 to April 2015, Clemson

- The graduate student association for graduate students studying wildlife and fisheries biology, forestry, or biology.
- Directing and organizing a guest-speaker seminar series; facilitating communication between graduate students, faculty, & staff; organizing events to build a sense of community among graduate students; organizing service events; and organizing events to bring in money to fund our travel grants program which gives money to members so they can attend conferences.

Herpetology Club,

Co-President

August 2010 to May 2012, UGA

Member

August 2009 to May 2010 and August 2012 to May 2013, UGA

- This is an undergraduate organization for all students interested in herpetology.
- Going to schools and local events to educate children and adults of all ages about reptiles and amphibians
- Coordinating care and use of a collection of 20 outreach animals
- Securing yearly funding for the maintenance of outreach animals
- Sampling and identification of native herpetofauna
- Establishing country records through competitive bioblitz events.

TEACHING EXPERIENCE

Frankfurt Summer School

July 2016, 2017, 2018 *Goethe University*

- This is an international summer program taught by several instructors at the Goethe University in the bio- and geosciences to look at how these different fields research global environmental change. Within this I teach a 3-6 hour class on individual-based modelling (IBM).
- The first part of the class is a lecture on the concept of IBM and its use in many different fields of study. This is then followed by a hands-on section in the computer lab where we go through the scientific process (question, hypothesis, methods, analysis, results, conclusions) using an individual-based model to answer questions about habitat fragmentation and population dynamics.

Introduction Seminar for the Masters in Environmental Sciences Program

July 2017, Feb. 2018, Feb. 2019, Feb. 2020 *Goethe University*

- This is a 3 hour lecture / hands-on session with students starting out in the Masters “Umweltwissenschaften” to introduce them to different fields of research in environmental science. We use much of the teaching material from the summer school, but teach the course in German, and adapt it to a class size of 20 – 50 students.

Undergraduate Teaching Assistant for Herpetology (WILD 4040/6040)

January-May 2011 and 2013 *UGA*

- Instruction in field techniques and identification of reptiles & amphibians
- Creating class website (Googlesites)
- Setting up lab practicals (test on animal identification and knowledge of their natural history)

VOLUNTEERING

Junge Forscher

July 2016-present Main Campus

This is an outreach program organized through the Main Campus program of the Stiftung Polytechnische Gesellschaft Frankfurt am Main. Here we teach elementary school children about DNA through games, an experiment in which they get to make DNA in a spit sample visible, and a visit to a university lab to look at their cheek cells through a microscope.

Nacht der Mussen

May 6, 2017 Senckenberg Museum

Each year the museums in Frankfurt open one night a year from 7pm to 2am and offer a special night of activities. To highlight Senckenberg's research program, we had a booth where we interacted with people about research on the return of wolves to Germany. We asked people to fill out two questionnaires: 1) on their knowledge about wolves and 2) about their attitude towards wolves. We then answered questions people have about wolves in Germany and showed them in a graph, which we updated with each survey, of how their attitudes compared to those of other visitors. This allowed the public to directly see how scientist process and analyze data from questionnaires.

Senckenberg Biodiversity and Climate Research Center (BiK-F) Tag der Offenen Tür

May 13, 2017 Senckenberg BiK-F

Once a year Senckenberg BiK-F opens its doors to the public to show what kind of research we do at the institute. As part of this I have two talks on our field work in Mongolia and how we use data on animal movements to help understand the biology of species and thus better protect them.

Session Chair - *Theoretical or Computational Ecology: Advances in Modeling*. 2018. Ecology Across Borders: Joint Annual Meeting of the British Ecological Society, the Ecological Society of Germany, Austria and Switzerland, the Netherlands-Flanders Ecological Society, and the European Ecological Federation. Ghent, Belgium.

Session Chair – *Growth in Turtles*. 2017. 15th Annual Symposium on the Conservation and Biology of Tortoises and Freshwater Turtles. Charleston, South Carolina, USA.

EXPERIENCES ABROAD

Fieldwork, Mongolia

September 4-20, 2015

At the start of my PhD I joined my lab to travel to Mongolia to put GPS-collars on Mongolian gazelles. We spent 11 days traveling through the Eastern Steppes, setting up nets to capture gazelles. We got to work with a Mongolian field crew and our collaborators in Mongolia. Although most of them did not speak English we nonetheless managed to work together as a team. 11 days of camping in middle of nowhere gave us lots of time to learn about the Eastern Steppe and Mongolian culture from our field crew and local herders. By the end of the trip we had collared 19 gazelles and traveled from Ulaan Baatar to Choibalsan to Matad and back.

International Studies Abroad, Intensive Spanish Language Program at the University of Belgrano

September 1 to December 8, 2012, *Buenos Aires, Argentina*

- Completed 16 credit hours of Spanish grammar classes, progressing through intermediate and high intermediate levels of Spanish
- 3 months of immersion living with a host family
- Weekend trips to Mendoza and the Iguazu Falls.

ANIMAL HUSBANDRY EXPERIENCES

Riverbanks Zoo and Garden

October 2007 to May 2015, *Columbia, SC*

- Volunteer in the herpetology department, providing care for 11 species of endangered turtle.

Carolina Wildlife Care

January 2003 to October 2007, *Columbia, SC*

- Husbandry and rehabilitation of squirrels, song birds, waterfowl, opossums, rabbits, and reptiles.

PROGRAMMING & QUANTITATIVE SKILLS

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| • R | • Maxent |
| • C++ | • Program MARK |
| • ArcGIS | • Minor in Mathematics |

LANGUAGES

Fluent: English, German

Basics: Spanish