

Peter J. Flynn

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EDUCATION

University of Chicago, Chicago, IL

PhD in Committee on Evolutionary Biology 2016-present

Advisor: Dr. Corrie Moreau

Yale University, New Haven, CT

Bachelor of Science, Ecology and Evolutionary Biology 2010-2014

Graduated May 2014; Cumulative GPA 3.63

Related Coursework: Evolution, Ecology, & Behavior, General Ecology, Ichthyology, Biostatistics, Evolutionary Biology, Mammalogy, Terrestrial Arthropods, Calculus II, Phylogenetics & Macroevolution, Ecoepidemiology

Senior Research: Advisor- Dr. Maria Diuk-Wasser (Yale School of Public Health). 'The phylogeographic patterns of Ixodes scapularis populations throughout the Northeastern US'

Duke University, Organization for Tropical Studies, South Africa

Semester study abroad in South African Ecology and Conservation

January-May 2013, GPA 3.85

Related Coursework: South African Ecosystems, Field Research, Conservation Management in Protected Areas

EXPERIENCE

Dr. Corrie Moreau Laboratory, Chicago, IL, September 2016-present

- Examining the influences on adaptation and evolutionary diversification of ants
- Investigating the role of viral evolutionary disease-dynamics, microbioata, biogeography, and symbiosis on ant diversification through a combination of comparative genomics, ecological field experiments, evolutionary analyses.
- Learned several computer languages including Python, R, Unix, and Bash to aid in my analyses.

Dr. Ofer Levy Laboratory, Boston, MA, June 2014-June 2016

- Researched innate and adaptive immune mechanisms of newborns and adults using a microphysiological in-vitro model system. We discovered that this in-vitro model system mimics human newborn mimics human newborn responses to immunization with HBV and BCG vaccines.
- Achieved fluency in laboratory techniques including ELISA, cell culture, phlebotomy, and flow cytometry.

Dr. Maria Diuk-Wasser Laboratory, New Haven, CT, Sept. 2013 – May 2014

- Examined eco-epidemiological factors of tick-borne diseases and the phylogeography of *Ixodes scapularis* in the Northeastern US. We found high levels of genetic diversity at a regional scale with evidence of a recent geographic expansion throughout the Northeast.
- Mastered molecular biology techniques including qPCR & RT-PCR and software including Geneious, MEGA, MacClade & GIS.

International Research Experience for Students, Skukuza, South Africa, May 2013 – Aug. 2013

- Investigated community ecology and wildlife management in Kruger National Park for six weeks
- Performed independent research project on bat species diversity and vegetation structure within Kruger National Park. We discovered that there is a relationship between bat guild composition and large-scale vegetation structure.
- Learned an array of field ecology techniques, including rodent and small mammal trapping, insect identification, and bird song tracking.

Dr. Thomas Near Laboratory, *New Haven, CT*, Jan. 2011 – Jan. 2013

- Researched the phylogeography of *Lepomis megalotis* throughout the US. We found no phylogenetic differences among the geographic variants of *L. megalotis*.
- Learned molecular genetic techniques including DNA extraction, DNA sequencing, & PCR and software skills including PAUP*, JMP, MrBayes, & Microsoft Office Suite.

Lemur Center Internship, *Durham, North Carolina*, Jan. 2008 – Jan. 2010

- Undertook research project on dominance and foraging habits of semi-free ranging ring-tailed lemurs, including a month long observational study at the Duke Lemur Center.

OUTREACH ACTIVITIES

Student Seminar Series, *Chicago, IL*, Sept. 2016-present

- Coordinated a weekly graduate student seminar series presenting original research to other graduate students

Meet a Scientist

- Participated in Field Museum program that highlights the insect natural history collections and our research to museum visitors

Outfielders

- Participated in Field Museum organization which is dedicated to promoting inclusion of people of all gender and sexual orientations

Journal of Emerging Investigators Mentor, *Boston, MA*, Sept. 2014 – Present

- Provided guidance to authors (middle and high school students) during manuscript editing phase, to strengthen their scientific writing skills.

Program for Research Assistant Development and Achievement, *Boston, MA*, June 2014 – Present

- Assisted biweekly seminar program for research assistant career development.

Freshman Counselor for Yale College Dean's Office, *New Haven, CT*, Aug. 2013 – May 2014

- Acted as the primary support system, mentor, & academic advisor for a group of Yale freshman.

Freshman Outdoor Orientation Trip Leader, *New Haven, CT*, March 2011 – May 2014

- Led freshman on hiking and camping orientation trips on the Appalachian Trail, served on the interview board for selecting new leaders.

Jonathan Edwards Buttery Manager and Master's Aide, *New Haven, CT*, Sept. 2010 – May 2014

- Managed and served as short-order cook of a late night eatery, and as an assistant to the Master of the residential college

Jonathan Edwards College Council, *New Haven, CT*, Sept. 2010 – May 2014

- Elected council member of residential college that oversaw administrative operations and planned college-wide events.

Demos Science Education, *New Haven, CT*, Oct. 2010 – May 2013

- Taught science and performed experiments with New Haven Middle School students.

AWARDS and HONORS

NSF Graduate Research Fellowship, 2016-2020

Boston Children's Hospital On-the-Spot Recognition Award, 2016

NSF International Research Experience for Students Research Fellowship, 2013

Yale College Dean's Research Fellowship, 2011-2012

Peabody Museum Research Fellowship, 2011

National Honor Society and National Math Society, 2009-2010

AP Scholar with Distinction, 2010

AFFILIATIONS/MEMBERSHIPS

Entomological Society of America: North America Branch/Systematics
Field Museum Women in Science
Society for the Study of Evolution

SKILLS

Foreign Language: Proficient in French and basic knowledge of Spanish

Certifications: Phlebotomy with Boston Children's Hospital, Wilderness First Aid and CPR with SOLO

Programs: R, Unix, Bash, Python, FigTree, BEAST, MrBayes

PUBLICATION HISTORY

Non-peer reviewed publications

Pearcy, A, Gibson, M, Balmagia, J, Berkey, J, **Flynn, P**, & Viljoen, S. (2013). Disturbance effects on a South African river and the impact on the Mutale River *Crocodylus niloticus* population. pp. 186-191 in World Crocodile Conference. Proceedings of the 22nd Working Meeting of the IUCN-SSC Crocodile Specialist Group. IUCN: Gland, Switzerland.

Flynn, P. (2012). "*Zaglossus bartoni*" (On-line), Animal Diversity Web.
http://animaldiversity.org/accounts/Zaglossus_bartoni/

Presentations

Flynn, P. (2014). 'The Phylogeographic patterns of *Ixodes scapularis* populations throughout the Northeastern United States'. Senior Symposium, New Haven, CT. Presentation.

Sanchez-Schmitz, G., and **Flynn, P.** (2015). 'In Vitro Vaccination Of A Microphysiologic Human Tissue-Construct'. Judah Folkman Research Day, Boston, MA. Poster and Presentation.

Sanchez-Schmitz, G., and **Flynn, P.** (2016). 'In Vitro Vaccination Of A Microphysiologic Human Tissue-Construct'. Judah Folkman Research Day, Boston, MA. Poster and Presentation.