

## Fríða Jóhannesdóttir

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### **Professional Preparation:**

University of Iceland, Reykjavik, Iceland	Biology	B.S.	2005
University of York, York, UK	Ecology and Environmental Management	M.Res.	2008
Cornell University, Ithaca, USA	Ecology and Evolutionary Biology	Ph.D.	Exp. 2016

### **Appointments:**

**2015:** Teaching Assistant, BIOEE1780 Introduction to Evolutionary Biology and Diversity, Dept of Ecology and Evolutionary Biology, Cornell University.

**2014:** Graduate Fellow, Dept of Ecology and Evolutionary Biology, Cornell University.

**2013:** Andrew and Margaret Paul Fellow, Cornell University; Teaching Assistant, BIOEE4500 Mammalogy and BIOEE4501 Mammalogy Laboratory, Dept of Ecology and Evolutionary Biology, Cornell University.

**2012:** Teaching Assistant, BIOG1440 Comparative Physiology, Dept of Neurobiology and Behavior, Cornell University.

**2011:** Teaching Assistant, BIOEE4500 Mammalogy and BIOEE4501 Mammalogy Laboratory, Dept of Ecology and Evolutionary Biology, Cornell University.

**2010-2011:** Laboratory Instructor, BIOG1500 Investigative Laboratory, Dept of Neurobiology and Behavior, Cornell University.

**2009-2010:** Graduate Fellow, Dept of Ecology and Evolutionary Biology, Cornell University.

**2007-2009:** Research Assistant, Dept of Biology, University of York, UK.

### **Grant funding (personal research):**

**2014:** Betty Miller Francis '47 Fund (\$3000); Heredity Fieldwork Grant, the Genetics Society (£1500); the Lewis and Clark Fund for Exploration and Field Research (\$3700); Graduate Student Research Fund, Dept. of Ecology and Evolutionary Biology (\$700).

**2013:** Theodore Roosevelt Memorial Fund (\$2550); Graduate Student Research Funds, Dept. of Ecology and Evolutionary Biology (\$500).

**2012:** Kieckhefer Adirondack Fellowship (\$5000); Cornell Graduate School Research Travel Grant (\$2000); Orenstein Endowment Fund (\$435); Paul P. Feeny Graduate Student Research Fund, Dept. of Ecology and Evolutionary Biology (\$500); Sigma Xi Grants in Aid of Research (\$500).

**2011:** Kieckhefer Adirondack Fellowship (\$5000); Cornell Graduate School Research Travel Grant (\$2000); Cornell Sigma Xi Research Grant (\$400); Paul P. Feeny Graduate Student Research Fund, Dept. of Ecology and Evolutionary Biology (\$500).

**2010:** Summer Research Funding, Dept. Ecology and Evolutionary Biology (\$1200); Cornell Sigma Xi Research Grant (\$800).

**2009:** Small Ecological Project Grant, the British Ecological Society (£2500); Heredity Fieldwork Grant, the Genetics Society (UK) (£1500).

**2008:** Fully-funded scholarship (funded by the European Union Marie Curie scheme) to attend BIOTER summer school in Ecology and Biodiversity in Bialowieza, Poland.

**Grant funding (Searle Lab research):**

**2014:** Atkinson Center for a Sustainable Future, Academic Venture Fund (\$106,053; 5/15/14 – 8/31/16); Climate Change and Conifer Die-Off: Impacts on Biodiversity and Human Health; I am a named graduate student within this grant; I helped conceive the project and contributed to the writing of the application; I jointly organized the first field trip (June – July 2014).

**Publications:**

**Jóhannesdóttir, F.**, Thompson, A.J., Vega, R., Herman, J.S., White, T.A., Heikkinen, M., Bannikova, A. & Searle, J.B. for publication in 2016. Phylogeography. In *Shrews, Chromosomes and Speciation*. Ed. J.B. Searle, P.D. Polly and J. Zima. Cambridge University Press, Cambridge, UK.

Jones, E.P., Eager, H.M., Gabriel, S.I., **Jóhannesdóttir, F.** & Searle, J.B. 2013. Genetic tracking of mice and other bioproxies to infer human history. *Trends in Genetics*, 29, 298-308.

Jones, E.P.\*, **Jóhannesdóttir, F.\***, Gündüz, İ., Richards, M.B. & Searle, J.B. 2011. The expansion of the house mouse into north-western Europe. *Journal of Zoology*, 283, 257-268. (\*contributed equally to this work)

Gabriel, S.I., **Jóhannesdóttir, F.**, Jones, E.P. & Searle, J.B. 2010. Colonization, mouse-style. *BMC Biology*, 8, 131. (highly accessed)

Searle, J.B., Jones, C.S., Gündüz, İ., Scascitelli, M., Jones, E.P., Herman, J.S., Rambau, R.V., Noble, L.R., Berry, R.J., Giménez, M.D. & **Jóhannesdóttir, F.** 2009. Of mice and (Viking?) men: phylogeography of British and Irish house mice. *Proceedings of the Royal Society B*, 276; 201-207.

**Research Skills:**

I have extensive experience in fieldwork with small mammal in Europe and North America, in all seasons, including live-trapping with Longworths, Shermans, Tomahawks etc. I have been involved in collection trips and in ecological mark-release-recapture studies. I am familiar with handling small mammals and taking standard measurements. I have also worked on other mammals: bat echolocation analysis, camera traps, non-invasive sampling of hair, feces and footprints etc.

My molecular research skills include DNA extractions using various methods both with and without extractions kit; single gene PCR; microsatellite analysis; preparations for Sanger sequencing and for genomic analysis (genotyping-by-sequencing; GBS). Much experience in population genetic and phylogenetic analysis including the programs Geneious, MrBayes, Arlequin, Mega, Phylip, Paup\*, Dambe, SplitsTree, DNAsp, Network, FigTree, Tophat, Cufflinks. Programing experience in R. Extensive use of graphics software (CorelDraw, Adobe Photoshop) and databases (Access).

**Synergistic Activities:**

*Teaching:* Laboratory instructor in Investigative Biology Lab at Cornell University between 2010 and 2011 teaching students the basics of biological investigation through multiple research projects in the fields of genetics, microbiology, freshwater ecology and anatomy. Laboratory instructor and teaching assistant in Mammalogy at Cornell University in 2011 and 2013. This involved development of a new Mammalogy laboratory course at Cornell University with lead professor, including designing curriculum and projects, and writing weekly laboratory reading material and

exams for the course. Teaching assistant in Comparative Physiology at Cornell University in 2012 assisting students in comprehending complex concepts in physiology of plants, animals and other groups. Head Teaching Assistant of Introduction to Evolutionary Biology and Diversity for Spring Semester 2015, a freshman-level course with 200+ students, providing support to lecturing faculty, managing exams, fielding student queries, organizing field trips, review sessions etc.

*Mentoring:* Currently mentoring 2 undergraduates in independent Honors research projects. Mentored an undergraduate in summer 2013 through the Biology Research Fellowship program, a program that aims to increase the participation of underrepresented minorities in graduate training and research careers in biological sciences. Previously mentored two undergraduates at Cornell (graduated 2013 and 2014 respectively) in research work and two Masters students at the University of York, UK (2008) in research projects. I have mentored students for a total of 19 student-semesters. Cornell undergraduate students that I have mentored have received funding from Sigma Xi (3X), Andrew W. Mellon Student Research Grant (2X), Morley Student Research Grant, Dextra Undergraduate Research Endowment Fund and the Undergraduate Minority Research Fund.

*Educational and public outreach:* Developer and leader of workshop on functional vertebrate morphology at Expanding Your Horizons, a Cornell campus wide event aimed at encouraging middle school girls to pursue careers in science (2013 and 2014; volunteer in 2012). Volunteer and co-leader of Mammalogy section, Master Naturalists training program, a program designed to teach adults about natural resources and empowering them to educate others and participate in conservation management projects (2012 and 2013). Organizer of Science from the Slope, a public Science Communication Event aimed at introducing science done at Cornell University to the public of Ithaca NY, sponsored by Sigma Xi (2013).

*Professional service:* Reviewer for *Journal of Molecular Evolution*, *European Journal of Wildlife Research* (2X) and *Biological Invasions*. Secretary for the alpha chapter of Sigma Xi (2011-current). Organization committee member for the Cornell Ecology and Evolutionary Biology graduate student symposium (2009-2013). Organization committee member for the 8<sup>th</sup> Meeting of the International *Sorex araneus* Cytogenetic Committee (ISACC) (2008, York University, UK).

*Museum Work and Collection Building:* Have received training in preparation of fluid and dry specimens of mammals and in preparation of bird specimens. Extensive experience in handling of museum specimens both in connection with teaching students and when visiting museums for destructive and non-destructive sampling (in over 10 museums in both Europe and North America). Have provided Cornell University Museum of Vertebrates with numerous preparations for all specimens of *Tamiasciurus hudsonicus* used for my studies, including museum skins, full bodies, tissues preserved for DNA and RNA analysis, parasite preparations and field notes. All samples are available for education and scientific research.

### **Professional Societies:**

Hið Íslenska Náttúrufræði Félag (Association of Icelandic Naturalists); Sigma Xi; Society for the Study of Evolution; American Society of Mammalogists; American Society of Naturalists; Society for Integrative and Comparative Biology; Genetics Society.