

Liam U. Taylor

Ph.D. Candidate, Department of Ecology and Evolutionary Biology
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Education

Present Ph.D. Candidate in Ecology and Evolutionary Biology. NSF GRFP. Yale University, New Haven, CT, USA.
2017 A.B. with Honors in Biology, *summa cum laude*. Bowdoin College, Brunswick, ME, USA.

Research and Fieldwork

Present Life history theory, sexual selection, and the evolution of delayed plumage maturation in birds. Dissertation research with Dr. Richard Prum (Yale University).
Present Conservation genetics for the endangered Bluemask Darter (*Etheostoma akatulo*). Rotation with Dr. Thomas Near (Yale University), Jeff Simmons (Tennessee Valley Authority), and Dr. Edgar Benavides.
Present Semiotics in evolution and evolutionary theory. With Dr. Paul Kockelman (Yale University).
Present Cell signaling, cell signs, and the intragenomic dialectic. With Daniel Stadtmuer (Yale University).
Present Coordination, conflict, and neglect in biparental incubation. With Dr. Robert Mauck (Kenyon College).
2017 (Fa) Golden-winged Manakins (*Masius chrysopterus*). Milpe Bird Sanctuary, Pichincha, Ecuador. With Dr. David McDonald (University of Wyoming).
2017 (Su) Semipalmated Plovers (*Charadrius semipalmatus*). Churchill Northern Studies Centre, Churchill, Manitoba, Canada. With Dr. Erica Nol (Trent University).
2016-2017 Honors Project in Biology. Demography of Tree Swallows (*Tachycineta bicolor*) and nesting patterns of Savannah Sparrows (*Passerculus sandwichensis*). With Dr. Nathaniel Wheelwright (Bowdoin College).
2016-2017 Independent Studies in Computer Science. Evolution and computation of spatial reasoning with Dr. Eric Chown (Bowdoin College), pruning neural networks with ant colony optimization with Dr. Stephen Majercick (Bowdoin College), and identifying edges with machine vision with William Silver.
2014,2015 (Su) Leach's Storm-Petrels (*Oceanodroma leucorhoa*). Bowdoin Scientific Station, Kent Island, New Brunswick, Canada. With Dr. Robert Mauck (Kenyon College).

Peer-Reviewed Publications

Taylor, L.U., B.K. Woodworth, B.K. Sandercock, and N.T. Wheelwright. 2018. Demographic drivers of collapse in an island population of Tree Swallows. *The Condor* 120(4):828-841.

Wheelwright, N.T., **L.U. Taylor**, B.M. West, E.R. Voss, S.Y. Berzins, A.R. Villeneuve, H.R. LeBlanc, V.B. Leos, S.J. Mayne, S.A. McCarthy, S.J. Nagar, and J.S. Watling. 2017. Pupation site selection and enemy avoidance in the Introduced Pine Sawfly (*Diprion similis*). *Northeastern Naturalist* 24(Sp. 7):B19-B31.

Other Publications

Taylor, L., N. Oakley, and D. McDonald. 2018. [Golden-winged Manakin](#) (*Masius chrysopterus*), version 1.0. In *Neotropical Birds Online* (T. S. Schulenberg, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA.

Taylor, L.U. and L.E. Michael. 2018. Methods for Young Fieldworkers. *The Bulletin of the Ecological Society of America* 99(2):169-172.

Presentations and Posters

- 2019 **Taylor, L.U.** and R.A. Mauck. Coordination, conflict, and neglect in biparental storm-petrel incubation. [Poster](#) for the American Ornithological Society. Anchorage, AK, USA.
- 2019 Benavides, E., **Taylor, L.U.**, J. Simmons, D. Macguigan, C. Parker, D. Kim, and T.J. Near. Genome-wide population structure at microgeographic scales in the endangered Bluemask Darter (*Etheostoma akatulo*) from the Caney Fork River System. [Poster](#) for the Society for the Study of Evolution. Providence, Rhode Island, USA. (Presentation by E.B., poster by **L.U.T.**)
- 2019 **Taylor, L.U.** and P. Kockelman. The Semiotics of Evolution. [Poster](#) for the Ecology and Evolutionary Biology Departmental Symposium. Yale University, New Haven, CT, USA.
- 2017 Wheelwright, N.T., **L.U. Taylor**, B.K. Woodworth, and B.K. Sandercock. Demographic collapse of an island Tree Swallow (*Tachycineta bicolor*) population. Presentation for the American Ornithological Society. East Lansing, MI, USA.
- 2017 **Taylor, L.U.** Demography of a collapsing aerial insectivore population, & natal dispersal of Savannah Sparrows. Presentation for the Department of Biology Honors Seminar. Bowdoin College, Brunswick, ME, USA.
- 2016 **Taylor, L.U.** A framework for mammalian and insect spatial systems. Presentation for the Department of Computer Science Summer Research Seminar. Bowdoin College, Brunswick, ME, USA.
- 2016 **Taylor, L.U.** and E. Chown. A framework for understanding spatial reasoning. [Poster](#) for the Presidential Research Symposium. Bowdoin College, Brunswick, ME, USA.
- 2016 McCarthy, S.A., S.Y. Berzins, H.R. LeBlanc, V.B. Leos, S.J. Mayne, S.J. Nagar, **L.U. Taylor**, A.R. Villeneuve, E.R. Voss, J.S. Watling, B.M. West, and N.T. Wheelwright. Pupation site selection and enemy avoidance in the Introduced Pine Sawfly. [Poster](#) for Advanced Winter Field Ecology. Bowdoin College, Brunswick, ME, USA.
- 2015 **Taylor, L.U.** and R.A. Mauck. Biparental incubation coordination of the Leach's Storm-petrel (*Oceanodroma leucorhoa*). [Poster](#) for the Presidential Research Symposium. Bowdoin College, Brunswick, ME, USA.

Teaching Experience

- 2020 (Jun 23) *Guest instructor.* "Getting comfortable with R programming." Ecology and Evolutionary Biology Department Undergraduate Seminar. Yale University, New Haven, CT, USA. June 23, 2020.
- 2020 (Mar 6) *Guest lecturer.* "Religion, politics, and sexual selection." Contemporary Issues in Biology Course. Hopkins High School, New Haven, CT, USA.
- 2019 (Fa) *Teaching fellow.* Evolution and Medicine Course. Department of Ecology and Evolutionary Biology, Yale University, New Haven, CT, USA.
- 2019 (Sp) *Teaching fellow.* Ornithology Course (Lecture and Laboratory). Department of Ecology and Evolutionary Biology, Yale University, New Haven, CT, USA.
- 2018 (Fa) *Teaching fellow.* Introduction to Evolution and Ecology (BIOL104). Department of Ecology and Evolutionary Biology, Yale University, New Haven, CT, USA.
- 2017 (Sp) *Head tutor.* Department of Computer Science, Bowdoin College, Brunswick, ME, USA.
- 2014-2017 *Teaching assistant.* Nature-Inspired Computation, Data Structures, and Introduction to Computer Science Courses. Department of Computer Science, Bowdoin College, Brunswick, ME, USA.

Research Grants

- 2018-Present Graduate Research Fellowship (NSF GRFP). National Science Foundation, USA.
- 2019 Franke Interdisciplinary Research Award. Franke Program in Science and the Humanities. Yale University, New Haven, CT, USA.
- 2019 Student Membership Award. American Ornithological Society.
- 2016 Bowdoin Research Award. Bowdoin College, Brunswick, ME, USA.
- 2016 Surdna Summer Research Fellowship. Bowdoin College, Brunswick, ME, USA.
- 2016 Roberts Fund and Grua/O'Connell Fund Mini-grants. Bowdoin College, Brunswick, ME, USA.
- 2014-2015 Summer Research Fellowship. Bowdoin Scientific Station, Kent Island, New Brunswick, Canada.

Honors and Awards

- 2018 Sterling Prize. Department of Ecology and Evolutionary Biology. Yale University, New Haven, CT, USA. (Awarded to the department's top application candidate).
- 2017 Donald and Harriet S. Macomber Prize in Biology. Department of Biology. Bowdoin College, Brunswick, ME, USA. (Awarded to the outstanding senior in Biology).
- 2017 Phi Beta Kappa Society.
- 2016 Goldwater Scholar. Barry Goldwater Excellence in Education Foundation. [Please note: Goldwater opposed the Civil Rights Act of 1964. Dr. Martin Luther King [wrote](#) that "Mr. Goldwater articulate[d] a philosophy which gives aid and comfort to the racists."]
- 2016 James Malcolm Moulton Prize in Biology. Department of Biology. Bowdoin College, Brunswick, ME, USA. (Awarded to the outstanding junior in Biology).
- 2016 Sarah and James Bowdoin Day Speaker. "[Attention and the Life of the Brain](#)." Bowdoin College, Brunswick, ME, USA.
- 2014,2016 Bowdoin Book Award. Bowdoin College, Brunswick, ME, USA. (Awarded for GPA of 4.00).
- 2014-2016 Sarah and James Bowdoin Scholar. Bowdoin College, Brunswick, ME, USA. (Awarded for top 20% GPA).
- 2014 National Merit Scholar.

Community and Activities

Current Societies: American Ornithological Society; Association of Field Ornithologists.

Peer Review: Yale Undergraduate Research Journal

- 2020 *Co-founder*. Working group on Meaning in Evolution and Ecology. Yale University, New Haven, CT, USA.
- 2020 *Participating member*. Student Affairs Committee. American Ornithological Society.
- 2020 *Volunteer*. Franke-MIT Full STEAM Ahead Program. Franke Program in Science and the Humanities. Yale University, New Haven, CT, USA.
- 2018 *Volunteer*. Peabody Museum of Natural History. Yale University, New Haven, CT, USA.
- 2018 (Fa) *Banding volunteer*. Connecticut Audubon Birdcraft Sanctuary. Fairfield, CT, USA.
- 2016-2017 *Co-head*. Huntington Bird Club. Bowdoin College, Brunswick, ME, USA.

2014-2015 *Member.* Northern Bites RoboCup Team. Bowdoin College, Brunswick, ME, USA.

Technical Skills

Fieldwork Netting, banding, and bleeding birds. Radio telemetry and geolocator tags. Decent attitude when damp and/or startled. Extensive knowledge of avian ID and taxonomy (a.k.a. birding).

Benchwork Tissue DNA extractions, PCR, ddRAD-seq library preparation

Programming Proficient in R and C++. Experienced in Python. Familiar with C, Java, Javascript, HTML/CSS, and JAGS. Workflow with Sublime Text, Git, and tidyverse.

