

Department of Biology
University of Oklahoma
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Department of Ornithology
Sam Noble Museum
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EDUCATION:

Ph.D., Ecology and Evolutionary Biology
University of Oklahoma (OU); Norman, OK
PI: Matthew J. Miller
Aug. 2016 – Present

M.S., Biological Sciences
Wright State University (WSU); Dayton, OH
PI: Jeffrey L. Peters
May 2014 – Jul. 2016

B. A., Zoology & Latin American Studies
Miami University (MU); Oxford, OH
PI: Richard C. Moore
Aug. 2009 – May 2014

RESEARCH EXPERIENCE:

Sam Noble Oklahoma Museum of Natural History (Norman, OK)
Dissertation title: *To be Determined*.
Aug. 2016 – present

Using next generation sequencing to ask questions associated with genomics of hybridization and speciation in the *Melanerpes* woodpecker complex. **Developing skills** in population genomics, **museum ornithology, avian field collection, avian tissue collection, and avian study skin preparation** for housing at the Sam Noble Oklahoma Museum of Natural History.

Wright State University (Dayton, OH)
Thesis title: *Genomic signatures of population history in a pair of recently diverged Australian teal support strong selection on the Z- sex chromosome*.
May. 2014 – Jul. 2016

Used next generation sequencing (ddRAD-seq) to generate >3,000 loci to scan across the Australian Teal genome for evidence of selection and gene flow. **Developed skills in next generation sequencing library preparation**, computer scripting (**Python, R, and Perl** for the purpose of large data manipulation) and **advanced bioinformatics**.

Miami University (Oxford, OH)
Undergraduate research project: *The role of selection in Carica papaya genomic evolution*.
Dec. 2009 – Jun. 2013

SNP genotyped autosomal loci and determined levels of divergence and signatures of selection in target loci along the pseudoautosomal boundary in *Carica papaya*. **Developed basic bench skills** associated with DNA sequencing. Also **developed basic skills in bioinformatics**.

The Jackson Laboratory (Bar Harbor, ME)
Project title: *microRNA expression patterns in mouse lung development and cancer*.
Jun. 2008 – Aug. 2008

Analyzed microRNA expression datasets. **Developed basic skills in data analysis**, and basic computer scripting (e.g., **Matlab**).

PEER – REVIEWED PUBLICATIONS:

Lappin F, Medart M, **Hawkins KK**, Moore RC. 2015. A polymorphic pseudoautosomal boundary in the *Carica papaya* sex chromosomes. ***Molecular Genetics and Genomics***, DOI: 10.1007/s00438-015-1000.

In prep:

Hawkins KK, Joseph L, Roshier DA, Peters JL. 2017. Genomic signatures of population history in a pair of recently diverged Australian Teal. Target Journal: Evolution.

GRANTS, FELLOWSHIPS AND AWARDS:

Sutton Ornithology Scholarship (\$3,200 Research)	2017
Chapman Fund- AMNH (\$2,500 Research)	2017
Loren G. Hill Fund Scholarship (\$3,000 scholarship)	2017
American Ornithologist's Union Student Travel Award (\$400)	2015
Summer Hughes Fellowship, MU (\$3,750 Stipend + Research)	2012
Undergraduate Summer Scholars, MU (\$3,600 Stipend + Research)	2015
Miami University Middletown Chemistry Department Award	2012
Choose Ohio First Bioinformatics Scholarship (\$9,000 Tuition)	2011-2013
Proctor and Gamble Research Award (\$700 Research)	2010
Undergraduate Research and Mentor Scholarship (\$22,500 Tuition)	2010-2013

TEACHING EXPERIENCE:

Ecology, Evolution and Diversity (OU freshman-level course) <i>Teaching assistant.</i>	Spring 2017
Human Physiology (OU sophomore-level course) <i>Teaching assistant.</i>	Fall 2016
Human Biology Lab (Clark State Community College, non-majors) <i>Adjunct Instructor</i>	Spring 2015
Introduction to Molecular Biology (WSU sophomore-level course) <i>Teaching assistant.</i>	Fall 2014, 2015 & Summer 2015, 2016
Introduction to Cell Biology (WSU sophomore-level course) <i>Teaching assistant.</i>	Spring 2015, 2016
Cell Biology (MU sophomore-level course) <i>Undergraduate teaching assistant.</i>	Aug. – Dec. 2010

PRESENTATIONS AT PROFESSIONAL MEETINGS:

Hawkins KK, Lavretsky P, Peters JL. *Selection drives fast sex-chromosome evolution in a pair of monochromatic / dichromatic Australian Teals*. 2016. Midwest Ecology and Evolution Conference, Oxford, OH.

Hawkins KK, Lavretsky P, Nelson JT, Peters, J.L. *Parallel molecular evolution on the Z-chromosome in species of ducks with parallel transition in sexual dichromatism / monochromatism*. 2015. American Ornithologists' Union / Cooper Ornithological Society Meeting, Norman, OK.

Hawkins KK, Lavretsky P, Peters JL. *Limited gene flow between two allopatric populations of mottled duck*. 2014. Ohio Avian Research Conference, Granville, OH.

Hawkins KK, Brown J, McDermott R, Moore RC. *The role of selection in Carica papaya genomic evolution*. Botanical Society of America Conference, 2012. Columbus, OH. *The role of selection in Carica papaya genomic evolution*. Botanical Society of America Conference, 2012. Columbus, OH

Hawkins, KK, Brown J, McDermott R, Moore RC. *The role of selection in Carica papaya genomic evolution*. 2011. Undergraduate Research Forum, Oxford, OH

Peters JL, Lavretsky P, **Hawkins KK**, Nelson J. *Speciation with gene flow in Anas ducks*. 2016. North American Ornithological Conference. Washington, D.C.

Moore RC, Brown J, Lappin F, **Hawkins KK**, McDermott R. *Genomic conflict and the evolution of plant sex chromosomes*. Botanical Society of American Conference. 2013. New Orleans, LA.

Lappin F, Brown J, Weingartner L, **Hawkins KK**, McDermott R, Harkess A, Moore RC. *The investigation of selective sweeps within the Carica papaya X chromosome*. Botanical Society of America Conference, 2012. Columbus, OH

Brown J, Lappin F, Weingartner L, **Hawkins KK**, McDermott R, Harkess A, Moore RC. *Expanding our understanding of the evolution of the Carica papaya X and Y chromosomes*. Botanical Society of America Conference, 2012. Columbus, OH

Brown J, **Hawkins KK**, McDermott R, Moore RC. *The relationship between recombination and genomic diversity in Carica papaya*. Botanical Society of America Conference, 2012. Columbus, OH

MUSEUM EXPEDITIONS:

Expedition member

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Jackson Co., OK, USA – Apr 2017

SNOMNH Expedition near Jackson Co., OK (2 days)

Lubbock, TX, USA – Oct. 2016

SNOMNH Expedition near Lubbock, TX and Dickens, TX (2 days)

Altus, OK, USA – Aug. 2016

SNOMNH Expedition to Southern Oklahoma near the Red River (2 days)

Kingston, OK, USA – Aug. 2016

SNOMNH Expedition to the Oklahoma Biological Station (2 days)

Outreach & Service:

Referee / Peer Reviewer:

Journal = *Molecular Phylogenetic and Evolution* (MPE)

Outreach:

Science in Action: Sam Noble Oklahoma Museum of Natural History
Norman, OK

Sept. 2017

PROFESSIONAL MEMBERSHIPS

Wilson Ornithological Society	2016
American Ornithologists' Society	2015
Society for the Study of Evolution	2015
National Council for Undergraduate Research	2011

