

Auriel M.V. Fournier

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aurielfournier.github.io - [Github Profile](#)
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Professional Appointments and Education

Postdoctoral Researcher - Mississippi State University
April 2017-Present ~ Dr. Mark Woodrey and Dr. Jim Lyons, Supervisors

Elected Councilor Wilson Ornithological Society - 2017-2020

Associate Editor The Ibis - 2017-Present

Research Committee Co-Chair Black Swamp Bird Observatory - 2016-Present

Lesson Maintainer Data Carpentry [R Ecology Lessons](#) - 2016-Present

2017 ~ **Ph.D. in Biological Sciences** - Arkansas Cooperative Fish & Wildlife Research Unit
University of Arkansas - Dr. David G. Krementz, Adviser -

Phenology, Habitat Use, and the Impacts of Wetland Management on Autumn Migrating Rails in Missouri

2011 ~ **Bachelor of Science in Wildlife Ecology and Management** - Minor *Remote Sensing*
Michigan Technological University Houghton, MI - Magna Cum Laude

Peer-Reviewed Publications

In Press

Fournier, A.M.V., Krementz, D.G. *Confirmation of diving and swimming behavior in the Sora (*Porzana carolina*)* **Wilson Journal of Ornithology** (copy available upon request)

Fournier, A.M.V., Krementz, D.G., Mengel, D.C. *Sora (*Porzana carolina*) autumn migration habitat use* **Royal Society Open Science** (copy available upon request)

2017

Fournier, A.M.V., Mengel, D.C., Gbur, E.E., Krementz, D.G. *The timing of autumn Sora (*Porzana carolina*) migration in Missouri* **Wilson Journal of Ornithology** 129:675-770 DOI: 10.1676/16-108.1

Fournier, A.M.V., Mengel, D.C., Krementz, D.G. *Virginia and Yellow Rail autumn migration ecology: synthesis using multiple data sets* **Animal Migration** 4:15-22 DOI: 10.1515/ami-2017-0003

Fournier, A.M.V., Drake K.L., Tozer D.C. *Using citizen science monitoring data in species distribution models to inform isotopic assignment of migratory connectivity in wetland birds* **Journal of Avian Biology** doi:10.1111/jav.01273

Fournier, A.M.V., Krementz, D.G. *Nocturnal distance sampling all-terrain vehicle surveys for non-breeding rails* **The Wildlife Society Bulletin** 41:151-156 doi:10.1002/wsb.745

Fournier, A.M.V., Sullivan, A., Bump, J., Perkins, M., Shieldcastle, M.C., King, S. *Combining citizen science species distribution models and stable isotopes reveals migratory connectivity in the secretive Virginia rail* **Journal of Applied Ecology** 54:618-627 doi:10.1111/1365-2664.12723

2016

Fournier, A.M.V., Welsh, K.J., Polito, M., Emslie, S. Brasso, R. *Levels of mercury in feathers of Clapper Rails over 45 Years in coastal salt marshes of New Hanover county, North Carolina* **Bulletin of Environmental Contamination & Toxicology** 97: 469-473 doi:10.1007/s00128-016-1870-z

2015

Fournier, A.M.V., Shieldcastle, M.C., Kashmer, T., Mylecraine, K.A. *Comparison of arrival dates of spring rail migration in the southwest Lake Erie Marshes, Ohio, USA.* **Waterbirds** 38: 312-314 doi: 10.1675/063.038.0313

Fournier, A.M.V., Bond, A.L. *Volunteer field staff are bad for wildlife ecology* **The Wildlife Society Bulletin** 39: 819-821 doi:10.1002/wsb.603

2013

Fournier, A.M.V., Shieldcastle, M.C., Fries, A.C. and Bump, J.K. *A morphometric model to predict the sex of virginia rails* **The Wildlife Society Bulletin** 27: 881-886 doi:10.1002/wsb.323

In Review

Fournier, A.M.V., Shave, A., Fischer, J., Siegrist, J., Ray, J., Chesky, T., MacIntosh, M., Fraser, K. *Testing the island habitat-selection hypothesis in a long-distance migratory songbird*

Eulinger, K., McDaniel, T., Calvert, G., **Fournier, A.M.V.**, *Juvenile King Rail (Rallus elegans) in stomach of American Bullfrog (Lithobates catesbeianus)*

Ward, S., **Fournier, A.M.V.**, Bond, A.L. *Rodent eradications on islands and their effect on rails (Rallidae) as non-target species*

Fournier, A.M.V., White, E.A., Heard, S.B. *Site-selection bias can drive apparent population declines in long-term studies*

Honors

2018 **Elective Member** - American Ornithological Society

2012-16 **Distinguished Doctoral Fellowship** - University of Arkansas

2016 **Distinguished Student Service Award** - The Wildlife Society U of Arkansas Student Chapter

2015 **Associate Wildlife Biologist** The Wildlife Society

2011 **Outstanding Senior in Wildlife Ecology and Management** - Michigan Technological University

2010 **Member of the Year** - The Wildlife Society Michigan Technological University Student Chapter

2009 **Woman of Promise** - School of Forest Resources and Envi. Science - Michigan Technological University

Grants

Travel Grant 2017 \$210 American Ornithological Society/Society of Canadian Ornithologists Conference

Travel Grant 2017 \$350 Wilson Ornithological Society Annual Conference

Travel Grant 2016 \$200 North American Ornithological Conference

Co-Investigator and Writer **Missouri Department of Conservation Research Grant** 2015 \$62,000

Travel Grant 2015 \$320 American Ornithologists Union/Cooper Ornithological Society Conference

The Frances M. Peacock Scholarship for Native Bird Habitat 2015 \$4000

Arkansas Audubon Society Trust 2014 \$1200

Summer Undergraduate Research Fellowship 2011 & 2009 \$3000

Invited Presentations

2018

Seminar Water[@]Wayne Series - Wayne State University

Symposium Talk American Ornithological Society

Seminar Louisiana State University, School of Renewable Natural

Seminar Mississippi State University, Department of Wildlife Fisheries and Aquaculture

Seminar University of Southern Mississippi, Department of Biological Sciences

Seminar University of Delaware, Department of Entomology and Wildlife Ecology

Seminar Gettysburg College, Department of Environmental Studies

Seminar Tulane University, Department of Ecology and Evolutionary Biology

2017

Seminar University of Montreal, Department of Biological Sciences

Seminar Grand Bay National Estuarine Research Reserve

Symposium Talk American Ornithological Society/Society of Canadian Ornithologists

Seminar Royal Society for the Protection of Birds, Centre for Conservation Science, UK Headquarters

Talk Mississippi Coast Audubon Society

Symposium Talk International Association of Great Lake Researchers

Seminar Bird Studies Canada

Keynote The Biggest Week in American Birding Festival

Seminar Missouri State University, Department of Biological Sciences

2016

Keynote Ohio Ornithological Society Annual Conference

Talk Arkansas Audubon Society Annual Conference

Seminar University of Toledo, Department of Environmental Sciences

2014

Seminar Arkansas Tech University, Department of Biological Sciences

Presentations

2018

Fournier, A.M.V., Lyons, J.E., Adams, E.M., Brush, J., Cooper, R.J., DeMaso, S., Driscoll, M., Frederick, P., Gleason, J., Wilson, R., Woodrey, M.S., Guiding Coordinated Bird Monitoring Decisions Through Structured Decision Making. American Ornithological Society Meeting, Tucson, AZ

Woodrey, M.S., Cooper, R.J., Evans, K.O., Iglay, R., Rush, S.A., **Fournier, A.M.V.**, Strange, T. Application of monitoring Best Management Practices to marsh restoration priorities to reduce uncertainty of marsh birds response American Ornithological Society Meeting, Tucson, AZ

Adams, E.M., **Fournier, A.M.V.**, Lyons, J.E., Woodrey, M.S. Using a structured decision making framework to support large-scale inference. American Ornithological Society Meeting, Tucson, AZ

Ray, J.D., Fraser, K.C. **Fournier, A.M.V.**, Shave, A. Selection of island habitat by a Texas population of purple martin during the non-breeding season. 54rd Texas Chapter Wildlife Society Dallas, TX.

2017

Fournier, A.M.V., Woodrey, M.S., Lyons, J.E., Cooper, B.J., Evans, K.E. Application OF Structured Decision Making to Marshbird Monitoring in the Gulf of Mexico *American Ornithological Society/Society of Canadian Ornithologists Meeting, East Lansing, MI*

Heard, S., **Fournier, A.M.V.**, Branch, T. Skelly, D. Why most studied populations should decline. *Canadian Society for Ecology and Evolution*

Fournier, A.M.V., Mengel, D.C., Krementz, D.G. Habitat Use and Migratory Timing of Virginia and Yellow Rails. *Wilson Ornithological Society Meeting, Fort Meyers, FL* [pdf link](#)

2016

Fournier, A.M.V., Drake, K., Tozer, D., Krementz, D.G. Migratory Connectivity of Sora, Virginia Rail and Yellow Rail. *North American Ornithological Conference, Washington D.C.* [pdf link](#) [recording](#)

Fournier, A.M.V. Building Collaboration and Community in Science Through Twitter. North American Ornithological Conference, Twitter for Scientists Workshop, Washington D.C.

Fournier, A.M.V., Mengel, D.C., Krementz D.G. Habitat Use by Autumn Migrating Sora in the Mississippi Flyway *Society of Wetland Scientists* - TX [pdf link](#)

2015

Fournier, A.M.V., Drake, K. Active Capture of Rails During the Breeding Season and Fall Migration. *Inland Bird Banders Association Meeting* - MS [pdf link](#)

Fournier, A.M.V., Sullivan, A.R., Bump, J.K., Perkins M., Shieldcastle, M.C., King, S.L. Combining Citizen Science Derived Species Distribution Models and Stable Isotope Analysis Reveals Migratory Connectivity in a Secretive Species, the Virginia Rail (*Rallus limicola*). *American Ornithologists Union/Cooper Ornithological Society Meeting* - OK [pdf link](#)

Fournier, A.M.V., Mengel, D.C., Krementz D.G. Timing of Autumn Migration in the Mississippi Flyway by Rails. *Association of Field Ornithologists Meeting* - NS [pdf link](#)

2014

Fournier, A.M.V., Krementz, D.G. 2014 The Response of Fall Migrating Sora to Wetland Management. *Arkansas State Chapter of the Wildlife Society Spring Meeting*- AR

2013

Fournier, A.M.V., Krementz, D.G., Mengel, D.C., Raedeke, A.H. Phenology, Habitat Use and Co-Occurrence of Fall Migrating Yellow Rails in Missouri. *Yellow Rail Virtual Symposium* USFWS

Technical Publications

2017

Fournier, A.M.V., Mengel, D.C. The timing of autumn rail migration in Missouri *Missouri Department of Conservation Science Note*

2016

Fournier, A.M.V., Effects of Wetland Management Strategies on Habitat Use of Fall Migrating Rails on Intensively-Managed Wetland Complexes in Missouri : Final Report USFWS Division of Migratory Birds Webless Program [pdf](#)

2015

Fournier, A.M.V., K. Willard. King Rail Nesting and Brood Rearing Ecology in Managed Wetlands: Final Report USFWS Division of Migratory Birds Webless Program [pdf](#)

Butler, C.J., **Fournier, A.M.V.** Using Multiple Stable Isotopes to Investigate Migratory Connectivity in Yellow Rails, Le Conte's Sparrows, Nelson's Sparrows and Sedge Wrens. U.S. Fish and Wildlife Service (Region 3) and Prairie Pothole Joint Venture.

Butler, C.J., **Fournier, A.M.V.** Using Multiple Stable Isotopes to Investigate Migratory Connectivity in Yellow Rails, Le Conte's Sparrows, and Sedge Wrens. U.S. Forest Service

Posters

2017

Fournier, A.M.V., Shieldcastle, M.C., Kashmer, T., Mylecraine, K.A. Comparison of Arrival Dates of Rail Migration in the Southwest Lake Erie Marshes, Ohio, USA *International Association of Great Lakes Researchers Conference* - MI [pdf](#)

2014

Fournier, A.M.V., Krementz, D.G., Mengel, D.C., Raedeke, A.H., Sora Migration and Wetland Management *The Wildlife Society National Conference* - PA [pdf](#)

2013

Fournier, A.M.V., Krementz, D.G., Mengel, D.C., Raedeke, A.H., Ecology of Fall Migrating Sora in Missouri. *The Wildlife Society National Conference* - WI [pdf](#)

2011

Fournier, A.M.V., Sheildcastle, M.C., Fries, A.C., Bump, J.K., 2011 Developing a morphometric model to predict the sex of Virginia Rails. *The Wildlife Society National Conference* - HI [pdf](#)

Fournier, A.M.V., Roth, A.M., Flaspohler, D.J., 2011 Assessing mechanisms for variation in the eyes of Golden-winged Warblers *Ecosystem Science Center Poster Session* - MI [pdf](#)

2010

Fournier, A.M.V., Flaspohler, D.J., 2010 Habitat Classification and Biological Inventory of Pioneer Scout Reservation *Undergraduate Research Expo* - MI

Service

2017-Present **Committee Member** Erin Lehnert, MS Student, U of Central Oklahoma

2013-Present **Peer Reviewer** 13 journals

2017 **Presentation Judge** Wilson Ornithological Society Meeting

2016-17 Vice Chair **Open Science Section** Ecological Society of America

2015-17 Treasurer/Secretary **Wetlands Working Group** The Wildlife Society

2014-16 Treasurer **Biology Graduate Student Association** University of Arkansas

2015 **Presentation Judge** Association of Field Ornithology, Wilson Ornithological Society, Society of Canadian Ornithologists Meeting

2015 **Organized/Attended** *Software Carpentry Workshop* University of Arkansas

2014-15 Treasurer **Student Working Group** The Wildlife Society

2014-15 Secretary **Student Chapter - University of Arkansas** The Wildlife Society

2013-14 Treasurer **Student Chapter - University of Arkansas** The Wildlife Society

2013-14 Vice President **Biology Graduate Student Association** University of Arkansas

2010 **Career Panel Member** Ohio Young Birder's Club Conference

Professional Development

2018 **Introduction to Structured Decision Making** NCTC

2017 **Adaptive Management: Structured Decision Making for Recurrent Decisions** NCTC

2017 **Bayesian Modeling for Ecological & Social Scientists** SESYNC, University of Maryland

2016 **Spatial Capture Recapture Workshop** University of Georgia

2016 **Game Theoretical Modeling of Evolution Tutorial** NIMBios, University of Tennessee

2015 **Editoring in Ornithology Workshop** American Ornithologist Union Meeting

2014 **Data Management Workshop** The Wildlife Society National Conference Pittsburgh, PA

2014 **Applied Hierarchical Modeling Workshop** Patuxent Wildlife Research Center/Royle & Kery

2013 **'Adehabitat' R Package Workshop** The Wildlife Society National Con/James Sheppard

2013 **Occupancy Modeling Short Course** Darryl MacKenzie

Teaching

Lesson Development

von Hardenberg A et al. Editors: Francois Michonneau and Auriel Fournier. 2017. Data Carpentry: R for data analysis and visualization of Ecological Data. doi: 10.5281/zenodo.569338

As Instructor

Advanced R Programming and Graphing Workshop

Developed materials and taught a day long workshop on programming, graphing, data management and building packages in R.

[Link to most recent Materials](#)

- American Ornithological Society Conference - April 2018
- American Ornithological Society/Society of Canadian Ornithologists - August 2017
- North American Ornithological Conference - August 2016
- American Ornithologists Union Conference - July 2015

Data and Software Carpentry Workshop

Two-day workshops on reproducible research in R, Unix Shell, and Git.

- Grand Valley State University, MI, Dec 2017
- USDA - New Orleans, LA June 2016
- Federal Reserve Board, Washington D.C. June 2016
- University of Connecticut, March 2016
- Iowa State University, November 2015

As Tutor

Science Writing Tutor

Quality Writing Center - University of Arkansas - January 2014 - March 2017 Tutoring undergraduate and graduate students on scientific writing 8 hours a week. Editing thesis, dissertations, lab reports and other writing. Working extensively with English as a Second Language students.

As Teaching Assistant

University of Arkansas

Biometry - 2016

Developed materials, scripts and documentation to move all labs from SYSTAT to R. [Link to Materials](#)

University of Arkansas

Wetlands Ecology and Management - 2015

Taught weekly labs on taxonomy and wetland field methods. Gave lectures, graded materials.

Michigan Technological University

Field Techniques - 2010 and 2011

Taught weekly field labs on forestry and wildlife ecology skills.

Michigan Technological University

Creating Your Success - 2010 and 2011

Oriented new students to campus resources, taught study skills.

Michigan Technological University

Ornithology - 2011

Lead field trips, gave guest lecture, gave field quizzes.

Outreach

2016-17 **#SkypeWithAScientist** 8 Classrooms across the US
2013-17 **Outdoor Education Volunteer** Hobbs State Park, Arkansas
Lead monthly spring bird banding demonstrations to groups 40-150 of children and adults
2013-17 **Science Fair Judge** (7) Regional/Local Science Fairs NW Arkansas
2015-16 **Editor** Science and Math Section Editor of [Science Borealis](#)
2015-16 **Bird Banding Demonstration** (3) Camp War Eagle Summer Camp, Arkansas
2015-6 **Biotweeps Curator** Curating a week of tweets to 2k+ people about my research for [Biotweeps](#)
2016 **Presentation** Arkansas Audubon Society Annual Meeting [presentation](#)
2015 **RealScientist Curator** Curating a week of tweets to 30k+ people about my research for [RealScientists](#)
2014-5 **Presentation** (4) Local Library Science Program, AR
2013-5 **Presentation** (3) Springdale Alternative High School, Springdale, AR
2015 **Field Trip Leader** (2) The Biggest Week In American Birding Festival
2015 **Presentation** (3) Boys and Girls Club of Bentonville, Arkansas STEAM Program

Work Experience

Freelance Ecologist October 2016-January 2017
Bird Studies Canada
Environmental Education Internship
Kellogg Bird Sanctuary, Michigan State University - Kara Hass - May - July 2012
Bird Bander
The Big Island, Hawaii - Dr. Jessie Knowlton - February - May 2012
Field Technician
Isle Royale National Park - Dr. Joseph Bump - May 2011
Remote Sensing/GIS Technician
Michigan Technological University - Dr. Mike Falkowski - February 2010 - December 2011
Small Mammal/Lakeshore Restoration Technician
Michigan Technological University - Dan Haskell - July 2010
Field Crew Leader
Michigan Technological University - Dr. Amber Roth March - June 2010
Bird Bander
Black Swamp Bird Observatory - Mark & Julie Shieldcastle - Spring and Fall 2004-2008

Professional Licenses and Certifications

Sub-permit bird banding license holder in US and Canada 13 years experience, 7000+ birds
Wilderness First Aid Wilderness Medicine Institute/NOLS (2/2016)
CPR/First Aid American Red Cross (12/2015)
Instructor Training [Software Carpentry & Data Carpentry](#) - (5/2015)