

CURRICULUM VITAE

PATRICK J. RUHL

October 2025

PERSONAL

Title: Clinical Assistant Professor of Teaching and Learning

Address: Forestry and Natural Resources

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Purdue University

West Lafayette, IN 47907

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EDUCATION

Harding University

B.S. – 2012

Major: Biology

Cumulative GPA: 3.94

Summa Cum Laude

Purdue University

M.S. – 2014

Concentration: Wildlife Science

Cumulative GPA: 3.91

Purdue University

Ph.D. – 2018

Concentration: Avian Ecology

Cumulative GPA: 3.91

FIELDS OF INTEREST

General: Wildlife Biology and Conservation

Specific: - Full annual cycle ecology of Worm-eating Warblers

- Impacts of modern forestry practices on breeding bird demography

- Roosting and foraging ecology of birds

- Anthropogenic impacts on wildlife populations

ACADEMIC AND RESEARCH POSITIONS

- 2024-Present *Clinical Assistant Professor of Teaching and Learning*
Forestry and Natural Resources Department, Purdue University, West Lafayette, IN
- 2018-2024 *Assistant Professor*: Harding University, Searcy, AR
Courses Taught: Biostatistics, Environmental Science, Ecology Lab, Ornithology
Administrative Role: Director - Gilliam Biological Research Station
- 2015 – 2018 *Research Assistant*: Purdue University, West Lafayette, IN
Research on postfledging ecology of mature forest birds in early successional habitat
- 2012 – 2014 *Research Assistant*: Purdue University, West Lafayette, IN
Research on the effects of timber harvest on terrestrial salamanders

IN REVIEW MANUSCRIPTS

1. Ore, M.J., B.G., Butcher, M.E. Akresh, J.J. Kirchman, J. Ralston, **P.J. Ruhl**, D.P.L. Toews, I.J. Lovette, and J. Walsh. 2025. Signals of corresponding genetic diversity loss in four warbler species exhibiting regional or rangewide declines. *BMC Biology* XX-XX.

PUBLISHED MANUSCRIPTS

1. Stephens, R.E., M. Elisa González, A.E. McNeill, L.E. Floyd, A.R. Howell, and **P.J. Ruhl**. 2025. White-throated Sparrows (*Zonotrichia albicollis*) use alternate roost locations during inclement weather. *Southeastern Naturalist* 24:352-367.
2. Kramer G.R., S.E. Fischer, **P.J. Ruhl**, E.S. Berz, R. Huffines, D.A. Aborn, and H.M. Streby. 2025. Temporal isolation in the migration ecology of two sympatrically breeding wood-warblers with geographically discordant population trends. *Journal of Avian Biology* 2025: e03358
3. González, M.E., and **P.J. Ruhl**. 2025. Inter-annual roost site fidelity of a White throated Sparrow (*Zonotrichia albicollis*) on the non-breeding grounds. *Wilson Journal of Ornithology* 137:478-486.
4. González, M.E., F.N. Hale, M.J. Adams, D.A. Kidder, and **P.J. Ruhl**. 2023. Roosting distributions and habitat associations of overwintering White-throated Sparrows (*Zonotrichia albicollis*) on the nonbreeding grounds. *Wilson Journal of Ornithology* 135:533-545.
5. McKinney, A.B., K.N. Barlow, H.E. Adams, J.L. White, K.F. Kellner, and **P. J. Ruhl**. 2023. Foraging intensity of Tufted Titmice (*Baeolophus bicolor*) in response to feed type and extreme winter conditions. *Southeastern Naturalist* 22:43-56.
6. **Ruhl, P.J.**, K.F. Kellner, and J.B. Dunning Jr. 2020. Ecological factors explain habitat associations of mature-forest songbirds in regenerating forest clearcuts. *Wilson Journal of Ornithology* 132:145-158.
7. **Ruhl, P.J.**, E.A. Flaherty, and J.B. Dunning Jr. 2020. Using stable isotopes of plasma, red blood cells, feces, and feathers to assess mature-forest bird diet during the postfledging period. *Canadian Journal of Zoology* 98:39-46.
8. Kellner, K.F., **P.J. Ruhl**, J.B. Dunning Jr., K.W. Barnes, M.R. Saunders, and R.K. Swihart. 2018. Local-scale habitat components driving bird abundance in Eastern deciduous forests. *American Midland Naturalist* 180:52-65.
9. **Ruhl, P.J.**, C.D. Delancey, and J.B. Dunning Jr. 2018. Roost preference, postfledging habitat use, and breeding phenology of adult female Worm-eating Warblers (*Helmitheros vermivorum*) on the breeding grounds. *Wilson Journal of Ornithology* 130:397-409.
10. **Ruhl, P.J.**, K.F. Kellner, J.M. Pierce, J.K. Riegel, R.K. Swihart, M.R. Saunders, and J.B. Dunning Jr. 2018. Characterization of Worm-eating Warbler (*Helmitheros*

vermivorum) breeding habitat at the landscape level and nest scale. *Avian Conservation and Ecology* 13:11.

11. Homoya, W., J.W. Moore, **P.J. Ruhl**, and J.B. Dunning, Jr. 2017. Do American Golden-Plovers (*Pluvialis dominica*) avoid wind-energy turbines in Indiana during spring migration? *The Wilson Journal of Ornithology* 129:863-871.
12. Peele, J., C. Nix, **P. Ruhl**, R. Chapman, P. Zollner, and M. Saunders. 2017. Effects of woody biomass harvests on a population of Plethodontid salamanders in Southeast Indiana. *American Midland Naturalist* 178:132-143.
13. **Ruhl, P.J.**, J.M. Pierce, J.B. Dunning Jr. 2016. An efficient and inexpensive apparatus for collecting fecal samples during banding studies: revisiting an underutilized technique. *North American Bird Bander* 41:145-150.
14. Kellner K.F., **P.J. Ruhl**, J.B. Dunning Jr., J.K. Riegel, and R.K. Swihart. 2016. Multi-scale responses of breeding birds to experimental forest management in Indiana, USA. *Forest Ecology and Management* 382:64-75.
15. **Ruhl P.J.**, R.N. Chapman, and J.B. Dunning Jr. 2016. Field Testing a standard metabolic rate estimation technique for Eastern Red-Backed Salamanders. *Journal of Herpetology* 50:138-144.
16. **Ruhl P.J.**, J.B. Dunning Jr. 2015. Morphometrics of Worm-eating Warblers in South-Central Indiana: hatching-year and after hatching-year comparison. *North American Bird Bander* 40:81-84.
17. **Ruhl P.J.**, J.K. Riegel, and J.B. Dunning Jr. 2015. Confirmation of successful Chestnut-sided Warbler breeding in South-Central Indiana. *Proceedings of the Indiana Academy of Science* 124:38-42.

INVITED TALKS

1. **Patrick J. Ruhl** "Winter Roosting Ecology of White-throated Sparrows" – Purdue University Fort Wayne Biological Sciences Department Seminar Series, in Hammond, IN, March 14, 2025
2. **Patrick J. Ruhl** "Where do Sparrows Sleep in the Winter" - *Wednesdays in the Wild* at Lilly Nature Center, West Lafayette, IN February 27, 2025
3. **Patrick J. Ruhl**. Winter Roosting Habitat Associations of White-throated Sparrows (*Zonotrichia albicollis*) - *Monthly meeting of the Sycamore Chapter of the Audubon Society*, in West Lafayette, IN October 10, 2024
4. **Patrick J. Ruhl**, Aric B. McKinney, Karena N. Barlow, Hannah E. Adams, Jon L. White, and Kenneth F. Kellner. "Foraging intensity of Tufted Titmice (*Baeolophus bicolor*) in response to feed type and extreme winter conditions" - *Scholar Sip Reception for Scholar Works at Harding, Searcy, AR, March 20, 2024*
5. **Patrick J. Ruhl**, and Jared Brooke. Bird Responses to Forest Management. - *Habitat University Podcast, February 9, 2024*

6. **Patrick J. Ruhl**, Paulette Bane, and Katherine Dillon. "Interdisciplinary collaboration: Birds and the liberal arts" - *Podcast Harding Center for Teaching and Learning, Searcy, AR, October 19, 2023*
7. **Patrick J. Ruhl**. "Breeding Bird Response to Forest Management in the Hardwoods Ecosystem Experiment" - *Forestry for the Birds: Joint Meeting of the Indiana Society of American Foresters, The Nature Conservancy in Indiana, and the Indiana Chapter of the Wildlife Society, March, 24, 2022*
8. **Patrick J. Ruhl**. "Importance of Early Successional Habitat for "Mature-Forest" Birds" - *Wildlife in America Online Webinar for Purdue University Fall 2020*
9. **Patrick J. Ruhl**, Kenneth F. Kellner, John B. Dunning Jr. "Using Quantitative Methods to Understand Postfledging Associations of Mature Forest Birds" - *Harding University Mathematics Department Seminar Series, in Searcy, AR, February 11, 2020*
10. **Patrick J. Ruhl**. "Understanding the Postfledging Associations of Mature Forest Birds with Early Successional Habitat" - *Arkansas State University Biology Department Seminar Series, in Jonesboro, AR, September 19, 2018*
11. **Patrick J. Ruhl**, Kenneth F. Kellner, Elizabeth A. Flaherty, and John B. Dunning Jr. "Where Do Forest Birds Go After Nesting?" - *Monthly meeting of the Robert Cooper Audubon Society, Muncie, IN February 21, 2018*
12. **Patrick J. Ruhl**, Kenneth F. Kellner, Elizabeth A. Flaherty, and John B. Dunning Jr. "What is a Mature Forest Bird? Habitat-use of Breeding Birds in Southern Indiana" - *Wednesdays in the Wild at Lilly Nature Center, West Lafayette, IN February 7, 2018*
13. **Patrick Ruhl**, K. Kellner, J. Riegel, E. Flaherty, and J. Dunning Jr. "Postfledging Habitat Associations of Mature Forest Birds in Southern Indiana." - *Harding University Biology Department Seminar Series, in Searcy, AR. October 30, 2017*
14. **Patrick J. Ruhl** and John B. Dunning Jr. "Breeding Bird Response to Even-aged Management in the Central Hardwoods Region." - *Partners in Flight Central Hardwoods Joint Venture Management Board Meeting at the Hoosier National Forest Headquarters, Bedford, IN April 25, 2017*
15. **Patrick J. Ruhl**, and John B. Dunning Jr. "A Plethora of Wormies." - *The Wildlife Society North Central Section Student Conclave at Camp Tecumseh, Brookston, IN March 25, 2017*
16. **Patrick J. Ruhl**, Kenneth Kellner, John Dunning Jr., Jeffery Riegel, Robert Swihart. "Habitat Use and Seral Associations of Indiana Birds." - *Central Hardwood Oak Ecology and Wildlife Management Conference, Nashville, IN March 8, 2017*
17. **Patrick J. Ruhl**. "Worm-eating Warbler Breeding Demography and Post-fledging Habitat Use in South-Central Indiana." - *Annual Inland Bird Banding Association Meeting at Mary Gray Bird Sanctuary, Connersville, IN November 12, 2016*

18. **Patrick J. Ruhl.** "Managing Indiana Woodlands for Bird Biodiversity: A Report from the Hardwood Ecosystem Experiment." - *Indiana Forestry and Woodland Owners Association Annual Meeting in Columbus, IN November 5, 2016*
19. **Patrick J. Ruhl.** "Can Salamanders Become Canaries? The Utility of Red-backed Salamanders as Bioindicators for Forest Ecosystem Health." - *Hoosier Herpetological Society Meeting, at Holiday Park, Indianapolis, IN. September 21, 2016*
20. **Patrick J. Ruhl.** "Forest Bird Response to Clearcutting."
-*Natural Resources Teacher Institute at the Forestry Training Center, in Morgan Monroe State Forest, IN. June 24, 2016*
21. **Patrick J. Ruhl.** "The impacts of Timber Harvest on Southern Indiana Birds are not so 'Clear-cut.'" -*Ball State University Chapter of The Wildlife Society Seminar Series Muncie, IN April 14, 2016*
22. **Patrick J. Ruhl,** Chapman, R.N., and Dunning J.B.Jr. "Effects of biomass harvest on eastern red-backed salamanders (*Plethodon cinereus*)" -*Harding University Biology Department Seminar Series, in Searcy, AR. September 08, 2014*

SCHOLARSHIP OF TEACHING AND LEARNING PRESENTATIONS

1. **Patrick J. Ruhl** and Jessica Outcalt. Workshop: Incorporating birds in K-12 science curriculum. *July 9, 2025 – Indiana Natural Resources Teacher Institute, Purdue Wildlife Area, West Lafayette, IN*
2. Stacy Lindshield, Kristen Bellisario, **Patrick J. Ruhl.** Workshop: Excellence in Undergraduate Research. *June 30, 2025 – Annual Meeting of the American Society of Mammalogists, West Lafayette, IN*

PROFESSIONAL PRESENTATIONS

1. **Patrick J. Ruhl.** Weather Impacts Roosting Distributions and Habitat Associations of Overwintering White-throated Sparrows on the Non-breeding Grounds *October 23, 2024 -Annual Meeting of The Wildlife Society, Baltimore, MD*
2. M. Elisa González, Fallon.N. Hale, Mason J. Adams, Dalton A. Kidder, and **Patrick J. Ruhl.** Winter Habitat Association of Roosting White-throated Sparrows (*Zonotrichia albicollis*) in Arkansas, USA. *August 9, 2023 -Annual Meeting of the American Ornithological Society, London, ON*
3. **Patrick Ruhl.** "Migratory connectivity of Louisiana Waterthrush and Worm-eating Warbler." *October 12, 2020 - Harding University Biology Department Seminar Series "Bio Bit" Searcy, AR*
4. **Patrick Ruhl.** "Identifying and investigating knowledge gaps in the Worm-eating Warbler full annual cycle to inform habitat management and conservation decisions." *June 26, 2019 - Annual meeting of the American Ornithological Society, Anchorage, AK*

5. **Patrick Ruhl**, Kenneth Kellner, John B. Dunning Jr. "Ecological variables explaining early-successional habitat associations of six mature-forest bird species during the breeding season." *June 27, 2019 - Annual meeting of the American Ornithological Society, Anchorage, AK*
6. **Patrick Ruhl**, Kenneth Kellner, John B. Dunning Jr., Jeffery Riegel, Robert Swihart, and Elizabeth Flaherty. "Multi-scale bird community response to forest management in the Central Hardwood Region." *August 3, 2017 - 1st annual meeting of the American Ornithological Society, Lansing, MI*
7. **Patrick J. Ruhl**, and John B. Dunning Jr. "Nursery or buffet: to what extent are Worm-eating Warblers using early successional habitat on summer breeding grounds?" *August 19, 2016 - North American Ornithological Conference, in Washington, D.C.*
8. **Patrick J. Ruhl**. "How do forest birds respond to clearcutting?" *-Wednesdays in the Wild at Lilly Nature Center, West Lafayette, IN March 16, 2016*
9. **Patrick J. Ruhl**. "A Summer of bird banding in southern Indiana." *-Monthly meeting of the Sycamore Chapter of the Audubon Society, in West Lafayette, IN November 12, 2015*
10. **Patrick J. Ruhl**, Chapman, R.N., and Dunning J.B.Jr. "Effects of biomass harvest on eastern red-backed salamanders (*Plethodon cinereus*)" *-Joint meeting of Ichthyologists and Herpetologists, in Chattanooga, TN August 01, 2014*

TEACHING EXPERIENCE

Courses Taught

FNR 34800 Wildlife Investigational Techniques	2025-Present
FNR 38400 Statistics for Forestry and Natural Resources	2025-Present
FNR 12500 Environmental Science and Conservation	2025-Present
FNR 25150 Ornithology	2025-Present
AGR 19900 Intro to FNR Academic Programs	2024-Present
FNR 57100 Advanced Ornithology	2024-Present
FNR 24150 Herpetology	2024-Present
BIOL 4300 Herpetology/Ornithology	2022
BIOL 2500 Biostatistics	2018-2024
BIOL 3690L Ecology Lab	2020-2024
BIOL 3120 Environmental Science	2020-2024
BIOL 4100 Animal Behavior Lab	2019

Graduate Teaching Assistant Positions

Wildlife Techniques	2017
Ornithology	2014 – 2017
Ornithology Lab	2016
Herpetology Lab	2013 – 2014

Undergraduate Teaching Assistant Positions

Microbiology Lab
Chemistry Lab

2010 – 2012
2009

PROFESSIONAL DEVELOPMENT/TRAINING

Course Development and Teaching Strategies for New Professionals

Workshop – 2025 Annual Meeting of The Wildlife Society

Embedding Career-Readiness Skills (CRS) Into Your Courses

Workshop – 2025 Annual Meeting of the American Society of Mammalogists

New Instructor PREP (Professors Reviewing Excellent Practices)

8-week course Teaching and Learning: Purdue University College of Agriculture 2025

National Center for Faculty Development and Diversity

Faculty Success Program Fall 2024

Association of College and University Educators (ACUE) Teaching Certification

Course in Effective Teaching Practices 2019-2020

ARCGIS

Completed ESRI ArcGIS desktop course; experience with ArcGIS Spatial Analyst

Google Drive

Completed Google Drive and Google Team Drive Training 8/23/2019

Microteaching Workshop

Teaching Professional Development 2012

PROFESSIONAL SOCIETY MEMBERSHIP

The Wildlife Society (current)

American Ornithological Society (current)

National Audubon Society (current member and past board member local chapter)

American Studies Institute (current)

Alpha Chi National College Honors Scholarship Society (current)

Society for the Study of Amphibians and Reptiles (past)

REVIEWER FOR

Avian Conservation and Ecology, Ecology and Evolution, Ecosphere, Forest Ecology and Management, Urban Ecosystems, Forests, Sustainability, Landscape Ecology, PeerJ, Ornithological Applications, Wilson Journal of Ornithology, Acta Ornithologica, American Midland Naturalist, North American Bird Bander, Arkansas Academy of Science, American Woodcock Proceedings

EXTENSION AND OUTREACH

- Indiana Master Naturalist Bird Banding Demonstration
-Purdue Wildlife Area, West Lafayette, IN September 13, 2025
- West Lafayette Parks and Recreation Live Stream Bird Feeder Collaboration
-Celery Bog Nature Center, West Lafayette, IN 2024
- Master bander at weekly bird banding station
-Gilliam Biological Research Station, AR 2018-2024
- Biology/Ornithology Instructor for 5-day 3rd-8th grade STEM Camp

- *-Harding University STEM Camp, Searcy, AR August 8-12, 2022*
- Facilitated a collaborative research project with Southwest Middle School 4th graders using Harding Biology Department live stream bird feeder data
-Southwest Middle School STEAM Collaboration, Searcy, AR Fall 2020
- Recorded a wildlife extension video for elementary school ESL students
-Sydney Deener Elementary School, Searcy, AR October 5, 2020
- Presented wildlife extension program to elementary school ESL students
-Sydney Deener Elementary School, Searcy, AR October 29, 2019
- Represented Harding Biology Department at Southwest Middle School Annual S.T.E.A.M. Day. Discussed biological research with 1,100 4th-6th graders
-Southwest Middle School, Searcy, AR October 1, 2019
- Presented research to state legislators (1 Senator and 4 District Representatives) concerning breeding bird response to Indiana forest management:
-Morgan-Monroe State Forest, IN 2018
- Taught bird identification to Kindergarteners and 2nd graders, and helped develop a bird-friendly nature area for a local Elementary School
-Mayflower Mill Elementary School, Lafayette, IN 2016-17
- Assisted with a field day on birding and bird banding with the Tippecanoe County chapter of Indiana Master Naturalists
-Purdue Wildlife Area September 8, 2017
- Presented research and demonstrated bird sampling techniques for a Hardwood Ecosystem Experiment field day
-Morgan Monroe State Forest, Morgan County, IN October 2, 2015
- Presented research on the effects of biomass harvest for cellulosic biofuel on eastern red-backed salamanders at Southeast Purdue Agricultural Center FieldDay
-Jennings County, IN May 31, 2014

Extension Publications

- Kellner K.F., **P. J. Ruhl**, J. B. Dunning Jr., and R. K. Swihart. (2017). Managing Forests for Birds in Indiana. *Indiana Woodland Steward* 25:7-8.
- **Patrick Ruhl**. Grouse! Researchers interact with ruffed grouse in Southern Indiana's managed Hardwood Ecosystem Experiment. *Ruffed Grouse Society Magazine*. Spring 2017 Volume 29, Issue 1, Page 59.

RELEVANT SKILLS

Wildlife Sampling

Mist netting and bird banding (>3500 birds banded) and avian blood collection
Radio Telemetry and Geolocation – direct tracking and triangulation
Passive Integrated Transponder (PIT) tagging for Radio Frequency Identification
Amphibian sampling and marking techniques - Visible Implant Elastomers (VIEs)
Small mammal live-trapping and ear tagging

Statistical Analysis

Experience with: STATISTICA, SAS, SYSTAT, and Program R

VOLUNTEER EXPERIENCE

Resume Workshop for Purdue Undergraduates	2025
Chi Sigma Alpha Social Club	2019-2023
-Served as a sponsor	
Peripatetic Lecture on Aristotle and Biology	2019-2023
-Guest lecture for Harding University Western Civ. Students	
Ball State Cerulean Warbler Research Group	2017
-Assisted Clayton Delancey with Cerulean Warbler Roost Telemetry	
Sycamore Chapter of the Audubon Society	2016-2017
-Served as Secretary	
Lafayette Regional Science and Engineering Fair	2014, '15, '17
-Judged science fair projects for students 5 th -12 th grade	
Purdue FNR/Indiana DNR	2013
-Performed nest searches for Hellbender conservation	
Indiana DNR (Jasper/Pulaski)	2011
-Banded wood ducks	
Purdue FNR American Chestnut Restoration Project	2010
-Helped plant 1000+ saplings	
Bald Knob Wildlife Refuge Deer Check station	2008
-Checked in deer took measurements and jawbone samples	

GRANT FUNDING

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- Documenting the migratory routes, stopover hotspots, and non-breeding grounds locations for Cerulean Warblers breeding within the Southern Indiana Cerulean Warbler Birdscape Geography **\$327,240**
Sam Shine Foundation - 2025
 - Northern Saw-Whet Owl Undergraduate Research Supplies **\$500**
Purdue College of Agriculture Transformational Experiences (CATE) Grant - 2025
 - Purdue Motus Wildlife Network Project **\$800**
Amos Butler Audubon Society Birdathon Grant - 2025
 - Roosting Ecology of White-throated Sparrows on the Wintering Grounds **\$3000**
Margaret M. Plummer Memorial Research Fund - 2022
 - Quantifying Seasonal Fluctuations in Blood Profile Relative to Singing Ability in Avian Species **\$350**
Arkansas Audubon Society- 2019
 - Postfledging Association of Mature Forest Birds with Early Successional Habitat in South-Central Indiana **\$3,000**
Amos Butler Audubon Society Birdathon Grant - 2017
 - Using Stable Isotope Analysis to Determine Avian Foraging Preference During the Postfledging Period in Southern Indiana **\$3,000**
Indiana Academy of Sciences Senior Research Grant - 2016
 - Worm-eating Warbler Breeding Demography in South-Central Indiana **\$3,000**
Amos Butler Audubon Society Birdathon Grant - 2016
 - Post Fledgling Association of Mature Forest Birds with Early Successional Habitat

in South-Central Indiana **\$3,000**

Amos Butler Audubon Society Birdathon Grant – 2015

ACADEMIC AWARDS & HONORS

TWS College and University Education Working Group New Instructor Travel Award	2024
Harding University College of Science Teacher Achievement Award Recipient	2023
Chase S. Osborn Award in Wildlife Conservation	2022
Charles M. Kirkpatrick Outstanding FNR Graduate Student Award	2018
FNR Teaching Academy Graduate Teaching Award	2018
Ray Kinslow Science Award	2012
Harding Academic Scholarship	2009-2012
Pryor Science Scholarship	2011-2012
James W. Pugh Scholarship	2010-2012
Science/Nursing Convocation Award	2009-2010
Undergraduate Deans List	2008-2012

RELEVANT GRADUATE COURSEWORK

Forest Resources Seminar	2012-2016
Quantitative Methods for Ecologists	Spring 2016
Landscape Ecology	Fall 2015
Introduction to University Teaching	Fall 2015
Conservation Biology I	Fall 2015
Advanced Ornithology	Spring 2015
Evolution of Behavior	Spring 2015
Modern Applied Statistics	Spring 2015
Disturbance Ecology	Spring 2014
Analyzing Ecological Data	Spring 2014
Ecological Statistics	Fall 2013
GIS Application	Fall 2013
Applied Regression Analysis	Spring 2013
Conservation Biology II	Fall 2012
Soundscape Ecology	Fall 2012
Research Ethics	Fall 2012
Statistical Methods	Fall 2012