

Oregon State University
Dept of Zoology
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Education:

Ph.D. Biological Sciences (December 2012)	Auburn University
M.S. Biological Sciences (August 2006)	State University of New York at Buffalo
B.S. Biological Sciences (May 2003)	State University of New York at Buffalo

Graduated Magna Cum Laude

Employment:

2013-present	Postdoctoral Researcher: Oregon State University (OSU)
2013	Outside Contractor for Oregon Fish and Wildlife Service
2011	Research Assistant: Auburn University
2007-2012	Teaching Assistant: Auburn University
2006-2007	Research Assistant: Auburn University
2003-2006	Research Assistant: State University of New York at Buffalo
2001-2003	Research Assistant: State University of New York at Buffalo
2000-2002	Grader at Measured Progress Testing Service

Teaching Experience:

2014-present	Course Instructor: OSU (at Hatfield Marine Science Center [HMSC]: Z 352- Marine Ecology Laboratory)
2013-present	Course Instructor: OSU (at Hatfield Marine Science Center [HMSC]: Z 461- Marine and Estuarine Invertebrate Biology)
2013-present	Course Instructor: OSU (Z 351- Marine Ecology)
2007-2012	Teaching Assistant: Auburn University BIOL 1021 Introductory Biology Lab (1 Semester) BIOL 5700 Applied and Environmental Microbiology (1 semester) BIOL 5660 Food Microbiology (1 semester) BIOL 3060 Ecology (7 semesters) BIOL 5110 Parasitology (2 semesters)

2005	LABT 4050 Clinical Parasitology (2 semesters) Course Instructor: State University of New York at Buffalo
2002-2006	BIO 310 Ecological Methods- Instructor of Record Teaching Assistant: State University of New York at Buffalo
	BIO 200 Evolutionary Biology (1 semester) BIO 310 Ecological Methods (2 semesters) BIO 215 Molecular Biology Labs (3 semesters)
2000, 2002	Teaching Assistant: State University of New York at Buffalo UE 102 University Honors Colloquium (2 semesters)

Guest Lecturer: Auburn University

2011	Three lectures for BIOL 3060- Ecology
2010	Four lectures for BIOL 3060- Ecology
2009	One lecture for BIOL 3060- Ecology
2007	One lecture for BIOL 7970- Host-Microbe Interactions

Publications:

- 9) **Kirk, NL**, CA Sundermann, and SR Santos. In Prep. The diversity, prevalence, and importance of marine apicomplexans. draft available upon request.
- 8) **Kirk, NL** and VM Weis. In Review. Animal-*Symbiodinium* symbioses: Foundations of coral reef ecosystems. Invited book chapter for Advances in Environmental Microbiology. Vol. II. Oxford University Press.
- 7) **Kirk, NL**, R Ritson-Williams, MA Coffroth, MW Miller, ND Fogarty, and SR Santos. 2013. Tracking transmission of apicomplexan symbionts in diverse Caribbean corals. *PLoS One*. 8(11) e80618.
- 6) **Kirk, NL**, DJ Thornhill, DW Kemp, WK Fitt, and SR Santos. 2013. Ubiquitous associations and a peak fall prevalence between apicomplexan symbionts and reef corals in Florida and the Bahamas. *Coral Reefs*. 32: 847-858.
- 5) Poland, DM, JM Mansfield, AR Hannes, CLF Lewis, TL Shearer, S Connelly, **NL Kirk** and MA Coffroth. 2013. Variation in *Symbiodinium* communities in juvenile *Briareum asbestinum* (Cnidaria: Octocorallia) over temporal and spatial scales. *Mar Ecol Prog Ser*. 476: 23-37.
- 4) Andras, JP, **NL Kirk** and CD Harvell. 2011. High diversity, local structure, and isolation by distance among populations of *Symbiodinium* (zooxanthellae) associated with the Caribbean Sea Fan Coral, *Gorgonia ventalina*. *Mol Ecol*. 20(12): 2525-2542.
- 3) **Kirk, NL**, JP Andras, CD Harvell, SR Santos and MA Coffroth. 2009. Population structure of *Symbiodinium* sp. associated with the common sea fan, *Gorgonia ventalina*, in the Florida Keys across distance, depth, and time. *Mar Biol*. 156(8): 1609-1623.
- 2) Andras, JP, **NL Kirk**, MA Coffroth, and CD Harvell. 2008. Isolation and characterization of microsatellite loci in *Symbiodinium* B1/B184, the dinoflagellate symbiont of the Caribbean sea fan coral, *Gorgonia ventalina*. *Mol Ecol Res*. 9(3): 989-993.

- 1) **Kirk, NL**, JR Ward, and MA Coffroth. 2005. Stable *Symbiodinium* composition in the sea fan *Gorgonia ventalina* during temperature and disease stress. *Biol Bull.* 209(3): 227-234.

Talks and Posters Presented at International, National, and Regional Meetings:

- 10) **Kirk, NL**, KR Corey*, and VM Weis. 2014. Using auto-fluorescence to enumerate symbionts in the sea anemone *Aiptasia*. Yosemite Symbiosis Workshop. Yosemite, CA. USA (POSTER)
- 9) Poole, AZ, **Kirk, NL**, and VM Weis. 2014. Laser capture microdissection as a tool for examining tissue specific expression differences in the anemone *Aiptasia pallida*. Yosemite Symbiosis Workshop. Yosemite, CA. USA (POSTER)
- 8) **Kirk, NL**, R Ritson-Williams, MA Coffroth, MW Miller, ND Fogarty, and SR Santos. 2012. Tracking transmission of apicomplexan symbionts in diverse Caribbean corals. Benthic Ecology Meeting. Norfolk, VA. USA
- 7) **Kirk, NL**, and SR Santos. 2012. Examining transmission of apicomplexan symbionts from adult corals to larvae. Southeastern Ecology and Evolution Conference. Clemson, SC. USA
- 6) **Kirk, NL**, DJ Thornhill, DW Kemp, WK Fitt, and SR Santos. 2011. Persistent and widespread associations of apicomplexans with Caribbean reef corals. International Society of Protistology/Phycological Society of America joint meeting, Seattle, WA. USA
- 5) **Kirk, NL**, DJ Thornhill, DW Kemp, WK Fitt, and SR Santos. 2011. Persistent infection of Caribbean corals by apicomplexan parasites. Southeastern Ecology and Evolution Conference. Auburn, AL. USA
- 4) **Kirk, NL**, DJ Thornhill, DW Kemp, WK Fitt, and SR Santos. 2011. Persistent infection of Caribbean corals by apicomplexans. Benthic Ecology Meeting. Mobile, AL. USA
- 3) **Kirk, NL**, JP Andras, and MA Coffroth. 2008. Fine-scale population structure of *Symbiodinium* associated with the common Caribbean sea fan, *Gorgonia ventalina*, in the Florida Keys. International Coral Reef Society Meeting. Ft. Lauderdale, FL. USA (POSTER)
- 2) **Kirk, NL**, JP Andras, CD Harvell, and MA Coffroth. 2006. Population structure of algal endosymbionts in a Caribbean octocoral across distance and depth. Benthic Ecology Meeting. Quebec City, QUE. CAN
- 1) **Kirk, NL**, JR Ward, CD Harvell, and MA Coffroth. 2003. Effects of the fungal pathogen *Aspergillus sydowii* on the zooxanthella composition of the Caribbean sea fan *Gorgonia ventalina*. Sigma Xi Research Symposium. Buffalo, NY. USA (POSTER)

* = Supervised undergraduate

Invited Talks and Seminars Given:

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| 2014 | Invited Seminar at OSU Undergraduate Environmental Sciences Club |
| 2013 | Invited Seminar at Hatfield Marine Science Center (Oregon State) |

- 2012 Invited Seminar at Oregon State University Zoology Department
- 2011 Invited Seminar at the Graduate Student Research Symposium at Auburn University
- 2009 Invited Seminar at Columbus State University Tri-Beta Society

Grants acquired:

- 2011 Auburn University College of Sciences and Mathematics Graduate Travel Award: (\$250)
- 2011 Auburn University Graduate Student Research Award: (\$1,000)
- 2011 Holz-Conner Travel Grant from the International Society of Protistologists: (\$600)
- 2010 PADI Foundation Research Grant: (\$5,600)
- 2008 Auburn Cell and Molecular Biosciences Travel Grant: (\$715)
- 2006 University at Buffalo Graduate Student Travel Grant: (\$250)

Honors/Awards:

- 2011 Award winning talk at Auburn University Research Week
- 2006-2007 Auburn University-Cellular and Molecular Biosciences Graduate Research Assistantship
- 2006-2007 Auburn University Peak of Excellence Graduate Research Tuition Fellowship
- 2003 Departmental Honors in Biology- Thesis: "Effects of the fungal pathogen *Aspergillus sydowii* on the zooxanthellae composition of the Caribbean sea fan *Gorgonia ventalina*"
- 1999-2003 Member of University Honors Program
- 2003 Member of Golden Key National Honors Society
- 2003 Member of Phi Eta Sigma Honors Fraternity
- 2003 Member of Phi Beta Kappa Honors Fraternity
- 1999-2003 National Dean's List Honoree
- 1999-2003 University of Buffalo Honors Scholar

Outreach and Service:

- 2013 Authored Submission for Defenders of Wildlife Blog
- 2013 Committee Member for Undergraduate Senior Thesis
- 2013 Guest Instructor for Winter Wonderings Program
- 2011 Course Instructor of Youth Experiences in Science (Y.E.S.) Camp
- 2011 Guest Instructor for Science Matters k-12 Program
- 2011 Guest Instructor for Getting Under the Surface k-12 Program (Symbioses)
- 2010, 2011 Instructor for AU Explore k-12 Program
- Reviewer for the Journal *PLoS One* (2014-present; 1 review completed)
- Reviewer for the Journal *Estuarine, Coastal and Shelf Science* (2013-present; 1 review completed)
- Reviewer for the Journal *Marine Ecology Progress Series* (2013-present; 1 review completed)

Reviewer for the Journal *Molecular Ecology* (2012-present; 1 review completed)
Reviewer for the Journal *Coral Reefs* (2008-present; 3 reviews completed)
Reviewer for the Journal *Zoological Studies* (2008-present; 2 reviews completed)

University and Department Committees:

2010-2012 Graduate Student Representative Auburn Biology Dept Strategic Planning
Committee
2010-2012 Auburn University Graduate Student Council (GSC) Senator
2010-2011 Graduate Student Representative for the GSC Insurance Committee
2009-2011 Auburn University Academic Honesty Committee
2008 Graduate Student Representative for the Chair Search Committee
1999 Member of Undergraduate Student Assembly

Undergraduate Mentoring and Student Committees

2014 Xavier Gonzalez. OSU undergrad. Gene expression changes in anemones
2014 Alexis Webb. OSU undergrad. qPCR validation of RNA-seq in oysters
2014 Natalie Coleman. OSU undergrad. Desiccation tolerance in anemones
2013 Michael Swindle. OSU undergrad. Culturing symbiotic dinoflagellates from corals
2013 Kalyn Hansen. OSU undergrad. Measuring growth rates in oysters
2012 Kevin Corey. OSU undergrad. Developing *in vivo* fluorescent symbiont monitoring
2012 Jessica Flesher. OSU undergrad. Committee member for undergraduate thesis
2004 Daniel Jammal. UB undergrad. Microsatellite development and genotyping

Extracurricular and Professional Societies:

2014-present Member of the Society for Integrative and Comparative Biology (SICB)
2011-present Member of the International Society of Protistologists (ISOP)
2011-present Associate Member of Sigma Xi Research Society
2011-2013 Certified Wilderness First Responder
2010-present Member of the International Society for Reef Studies (ISRS)
2010-present Member of the Association of the Marine Laboratories of the Caribbean
2005 NAUI Rescue Diver Certification
2003-2007 AAUS Reciprocity Research Diver
2000-present Member of the Atlantic Chapter of the Sierra Club

References:

Dr. Scott R. Santos (PhD advisor)
Associate Professor of Biological Sciences, Auburn University
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101 Life Sciences Building, Auburn, AL 36849 USA
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Dr. Mary Alice Coffroth (Masters advisor)
Professor of Geology SUNY @Buffalo
447 Hochstetter Hall Department of Geology
411 Cooke Hall Graduate Program in Evolution, Ecology and Behavior State University
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Dr. Virginia M. Weis (Teaching supervisor and Co-postdoc advisor)
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