

KARINE POSBIC LEYDET
keleydet@syr.edu
<http://karinepleydet.weebly.com>

PREVIOUS APPOINTMENTS

Postdoctoral Researcher, Syracuse University, Syracuse NY October 2016–December 2019
Department of Biology
Advisor: Jannice Friedman

EDUCATION

Doctor of Philosophy, Louisiana State University, Baton Rouge LA 2016
Department of Biological Sciences (Systematics, Ecology, and Evolution)
Dissertation: *Phylogeography of Oculina corals and their algal symbionts: Insights into the origin and expansion of Oculina patagonica in the Mediterranean*
Advisor: Michael E. Hellberg

Master of Science, The George Washington University, Washington DC 2010
Department of Biological Sciences
Thesis: *Comparison of direct and indirect methods of estimating migration and dispersal routes of the marbled salamander, Ambystoma opacum*
Advisor: Sheri A. Church

Bachelor of Science, Mount Saint Mary's University, Emmitsburg MD 2007
Major: Biology
Minor: Environmental Studies
summa cum laude graduating honors
highest scholastic average throughout all four years

RESEARCH EXPERIENCE

2016–2019 Sexual selection in *Mimulus* sp.
2016–2017 Sexual selection in *Plantago lanceolata*
2015–2016 Invasion genetics of *Oculina patagonica*
2012–2015 Population structure and genetic diversity of *Oculina* corals' algal endosymbionts
2010–2014 Phylogeography of *Oculina* corals including the invasive *Oculina patagonica*
2010 Evolution of green fluorescent protein in *Porites* corals
2008–2010 Metapopulation structure, migration, and dispersal routes of the marbled salamander, *Ambystoma opacum*
2007 Research technician: National Cancer Institute (Training Award)
2006 The role of olfactory cues in female mate selection in the tungara frog, *Physalaemus pustulosus*
2005–2006 Artificial selection and defense advantage of plant trichomes in *Brassica rapa*

TEACHING EXPERIENCE

- 2011–2015 BIOL 2153. Principles of Genetics; Graduate teaching assistant, Louisiana State University
Prepared and led weekly discussions on genetics problem solving; designed quizzes and practice worksheets; held weekly office hours and exam review sessions; graded quizzes and homework assignments
- 2014 BIOL 2153. Principle of Genetics; Guest lecturer, Louisiana State University
Lectured on genetic laboratory experiments and techniques
- 2010, 2011 BIOL 4154. Invertebrate Zoology; Graduate teaching assistant, Louisiana State University
Led weekly laboratories involving observation of live invertebrates; organized outreach event at a local elementary school; graded exams and lab notebooks
- 2010 BISC 2584. Introduction to Bioinformatics; Guest laboratory instructor, The George Washington University
Led laboratory on population genetics analyses
- 2008–2010 BISC 1111, 1112. Introductory Biology; Graduate teaching assistant, The George Washington University
Led weekly laboratories of topics ranging from diffusion and osmosis, PCR, sea urchin development, and animal dissections; held weekly office hours; graded quizzes, weekly assignments, and lab reports
- 2004–2007 BIOL 110, 111, 300. Introduction to Biology I & II, Microbiology; Laboratory Aide, Mount Saint Mary's University
Prepared and organized materials and reagents for weekly laboratories
- 2006 BIOL 300. Microbiology; Undergraduate supplemental instructor, Mount Saint Mary's University
Tutored students enrolled in the course

PUBLICATIONS

- 6- **Leydet, K. P.**, C. Grupstra, R. Coma, M. Ribes, M. E. Hellberg (2018) Host-targeted RAD-Seq reveals genetic changes in the coral *Oculina patagonica* associated with range expansion along the Spanish Mediterranean coast. *Molecular Ecology* 27(11): 2529-2543.
- 5- Grupstra, C. G. B., R. Coma, M. Ribes, **K. P. Leydet**, J. E. Parkinson, K. McDonald, M. Catllà, C. R. Voolstra, M. E. Hellberg, and M. A. Coffroth (2017) Evidence for coral range expansion accompanied by reduced diversity of *Symbiodinium* genotypes. *Coral Reefs* 36(3):981-985.
- 4- **Leydet, K. P.**, and M. E. Hellberg (2016) Discordant coral-symbiont structuring: factors shaping geographical variation of *Symbiodinium* communities in a facultative zooxanthellate coral genus, *Oculina*. *Coral Reefs* 35(2):583–595.
- 3- **Leydet, K. P.**, and M. E. Hellberg (2015) The invasive coral *Oculina patagonica* has not been recently introduced to the Mediterranean from the western Atlantic. *BMC Evolutionary Biology* 15:79. HIGHLY ACCESSED.
- 2- Fenberg, P. B., **K. Posbic**, and M. E. Hellberg (2014) Historical and recent processes shaping the geographic range of a rocky intertidal gastropod: phylogeography, ecology, and habitat availability. *Ecology and Evolution* 4(16):3244–3255.

- 1- Carstens, B. C., R. S. Brennan, V. Chua, C. V. Duffie, M. G. Harvey, R. A. Koch, C. D. McMahan, B. J. Nelson, C. E. Newman, J. D. Satler, G. Seeholzer, **K. Posbic**, D. C. Tank, and J. Sullivan (2013) Model selection as a tool for phylogeographic inference: an example from the willow *Salix melanopsis*. *Molecular Ecology* 22:4014–4028.

GRANTS AND AWARDS

2017	Society for the Study of Evolution Outreach Grant (co-investigator) \$450
2016	Bruch Travel Award, Louisiana State University \$1100
2016	McDaniel Travel Award, Louisiana State University \$500
2016	Dissertation Year Fellowship, Louisiana State University \$12,000
2015	Carrie Lynn Yoder Memorial Fellowship Enhancement Award, Louisiana State University \$3000
2013	Lerner-Gray Grant for Marine Research \$2000
2011	Sigma Xi Grants-in-Aid of Research Program \$400
2010–2015	Louisiana State University Graduate Teaching Assistantship \$15,250/year
2010–2014	Louisiana State University Graduate School Enhancement Award \$5000/year
2010	Philip Amsterdam Graduate Teaching Assistant Award, Honorable Mention, The George Washington University
2009	Sophie Danforth Conservation Biology Fund, Roger Williams Park Zoo \$1000
2009	Bunting Fund, The George Washington University \$200
2008–2010	The George Washington University Graduate Teaching Assistantship \$25,000/year
2007	National Cancer Institute Cancer Research Training Award
2007	The Seton Prize for the highest average maintained throughout the course of Biology at Mount Saint Mary's University
2007	The Bishop Allen Memorial Prize for the highest scholastic average throughout the four years at Mount Saint Mary's University \$300
2006	The Dr. Henry P. and M. Page Laughlin Prize, Mount Saint Mary's University \$500
2005	POLYED Undergraduate Award for Achievement in Organic Chemistry
2005	American Chemical Society Award in Organic Chemistry

SCIENTIFIC PRESENTATIONS

INVITED TALKS

- Leydet, K. P.** (2017) Genetic markers for investigating the phylogeography of *Oculina* corals and their algal symbionts. NYS Biotechnology Symposium. Syracuse, NY.
- Leydet, K. P.**, and M. E. Hellberg (2015) Phylogeography of *Oculina* corals and their algal symbionts. Clarkson University Early Career Colloquium in Bioscience Crossing Disciplines. Postdam, NY.
- Posbic, K.**, D. R. Church, and S. A. Church (2010) Comparing direct and indirect estimates of migration of the marbled salamander, *Ambystoma opacum*. The Undergraduate Seminar Series, Mount Saint Mary's University. Emmitsburg, MD.

ORAL PRESENTATIONS

- Leydet, K. P.**, C. Grupstra, R. Coma, M. Ribes, M. E. Hellberg (2016) Genetic insights into the range expansion of the coral, *Oculina patagonica* along the Spanish Mediterranean coast. Evolution meeting. Austin, TX
- Posbic, K.**, and M. E. Hellberg (2012) Holobiont genetics of an introduced coral, *Oculina patagonica*. Systematics, Ecology and Evolution Departmental Seminar Series, Louisiana State University. Baton Rouge, LA.
- Posbic, K.**, D. R. Church, and S. A. Church (2010) Comparison of direct and indirect methods of estimating migration and dispersal routes of the marbled salamander, *Ambystoma opacum*. Museum of Natural History Seminar Series, Louisiana State University. Baton Rouge, LA.
- Posbic, K.**, D. R. Church, and S. A. Church (2010) Comparing direct and indirect estimates of migration of the marbled salamander, *Ambystoma opacum*. Evolution Meeting. Portland, OR.
- Posbic, K.**, R. C. Taylor (2006) The role of olfactory cues in female mate selection in the tungara frog. Undergraduate Departmental Seminar, Mount Saint Mary's University. Emmitsburg, MD.

POSTER PRESENTATIONS (* DENOTES UNDERGRADUATE STUDENT)

- Leydet, K. P.**, and J. Friedman (2019) Mate preferences and non-random mating in the monkey flower *Mimulus guttatus*. Evolution meeting. Providence, RI
- Morris, K. *, **K. Leydet**, J. Friedman (2018) Decomposing the components of successful fertilization in plants. Undergraduate Research Conference. Syracuse University, NY
- McDonald, K. *, C. Grupstra, **K. P. Leydet**, J. Parkinson, M. Ribes, R. Coma, M. Hellberg, I. Baums, C. Woolstra, and M. A. Coffroth (2015) Development of microsatellite loci for *S. psylmophilum* (Symbiodinium ITS-type B2). Benthic Ecology Meeting. Quebec City, Canada. AWARD WINNING.
- Bolen, R. H., N. Henry, N. J. Ferrari, L. S. Lang, M. E. Evans, **K. E. Posbic**, C. M. Riley, and A. Assiaw-Dufu (2009) Trichomes in rapid-cycling *Brassica rapa* do not defend against herbivory by *Trichoplusia ni* larvae. Ecological Society of America Meeting. Albuquerque, NM.

PROFESSIONAL SERVICE AND OUTREACH

- 2017–2018 Westcott Community Center Outreach Program, Syracuse NY
Led and assisted science outreach activities to local afterschool community center
- 2018 MOST museum's "Be the geneticist" event series, Syracuse NY
- 2017 Judge at Environmental Challenge 7th and 8th Grade Science Fair, Syracuse NY (23 May 2017)
- 2017 Graduate Women in Science Fellowship Proposal Reviewer
Invited to review GWIS Fellowship applicant proposals
- 2014–2016 Hellberg Lab Manager, Louisiana State University
Responsible for monitoring lab supply inventory, ordering supplies, and maintaining chemical inventory on an online management system

- 2010–2013 Ocean Commotion Exhibitor, Sea Grant, Louisiana
Educated local Baton Rouge elementary school about Gulf invertebrates with display of live organisms
- 2012 Community School of Apprenticeship Learning LSU College Day Experience volunteer
Led a DNA extraction experiment with minority honor roll students in grades 6-8
- 2010, 2011 Invertebrate Zoology outreach program, Louisiana State University
Organized and led an outreach program for undergraduate students aimed at educating local Baton Rouge elementary classes about Gulf invertebrates
- 2010 Science fair mentor, Louisiana State University
Supervised an award-winning high school science fair project examining the evolution of green fluorescent protein in *Porites* corals
- 2006 Student representative on the Biology Professor Search Committee at Mount Saint Mary's University
Attended seminars and luncheons with candidates; submitted evaluations of candidates to the Faculty Search Committee

STUDENTS MENTORED

2017–2018	Alexander Le	undergraduate	Syracuse University, NY
2016–2017	Katie Morris	undergraduate	Syracuse University, NY
2011–2012	Annie Talbot	high school	Saint Joseph's Academy, LA
2010–2012	Margaret Talbot	high school	Saint Joseph's Academy, LA

REVIEWER

Coevolution (Frontiers in Ecology and Evolution): Review Editor
Ecological Applications
Biological Invasions
ICES Journal of Marine Science
Check List: Journal of Species Lists and Distribution
PeerJ
Scientific Reports
Molecular Ecology Resources

HONORS AND MEMBERSHIPS

- 2011–2019 Member of the Society for the Study of Evolution
2012–2016 Sigma Xi Associate Member
2009 Member of the American Society of Ichthyologists and Herpetologists
2007 *summa cum laude* graduating honors, Mount Saint Mary's University
2006–2007 *Phi Sigma Tau* Philosophy Honors Society
2006–2007 *Delta Epsilon Sigma* National Catholic Honors Society
2005–2006 National Dean's List
2004–2007 *Beta Beta Beta* Biological Honors Society
2003–2007 Dean's List, Mount Saint Mary's University