

**KARINE POSBIC LEYDET**  
karineposbic@gmail.com  
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

---

- 7- **Posbic-Leydet, K. E.** K. L. Glennon, J. T. Fisher, D. R. Church, S. A. Church (2022) Comparing genetic and field-based estimates of population connectivity in marbled salamanders, *Ambystoma opacum*. *Diversity* 14, 524.
- 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. psymnophilum* (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