CURRICULUM VITAE

EDUCATION

Ph.D. Biology Masters of Biology Bachelors of Science

Washington University University of Central Florida University of Central Florida

Advisor: Allan Larson Advisors: L.M. Ehrhart and May, 2002 May 2010 Christopher Parkinson

May 2010 Christopher May 2005

Postdoctoral Fellow

University of California at Santa Cruz

August 2010-November 2011

Postdoctoral Fellow University of Central Florida November 2011 to 2013

Assistant Professor of Biology Valdosta State University August 2013-Present

MANUCRIPTS CURRENTLY IN REVIEW

- Reece, J., Alansari, A., Kalkvik, H.M., AlKindi, A., Mahmoud, I., Al Kiyumi, A., Elshafie, A., and Parkinson, C.L. A survey of the genetic diversity of the Loggerhead and Green Sea Turtles of Oman. *Chelonian Conservation Biology*.
- Reece, J., Fauth, J.E., Downs, C.A., and Ehrhart, L.M. Cellular diagnostics and health of juvenile green turtles (*Chelonia mydas*): identifying environmental cofactors of fibropapillomatosis. *Marine Environmental Research*.

PEER REVIEWED PUBLICATIONS

- Collar, D., Reece, J., Mehta, R., Alfaro, M., Wainwright, P. (in press) Imperfect Convergence in Morphological Systems: Variable Responses among Cranial Structures Underlie Transitions to Durophagy in Moray Eels. *American Naturalist*.
- Reece, J., Passeri, D., Ehrhart, L.M., Hagen, S., Hays, A., Long, C., Noss, R., Bilskie, M., Sanchez, C., Schwoerer, M.V., Von-Holle, B., Weishampel, J., Wolf, S. (2013) Sea level rise, land use, and climate change influence the distribution of loggerhead turtle nests at the largest USA rookery (Melbourne Beach, Florida). *Marine Ecology Progress Series*, 493:259-274.

- Reece, J., Noss, R.F., Oetting, J., Hoctor, T., Volk, M. (2013) A vulnerability assessment of 300 species in Florida: threats from sea level rise, land-use, and climate change. *PLoS One*, 8(11):e80658.
- Boenscotter, A.M., Reece, J.S., Noss, R.F., Brandt, L.A., Mazzotti, F.J., Romañach, S., Watling, J.I. (2013) Threatened and endangered subspecies with vulnerable ecological traits also have high susceptibility to sea level rise and habitat fragmentation. *PLoS ONE*, 8: e70647.
- Reece, J., Mehta, R. (2013) The mechanisms underlying the evolution of elongation and large body size in moray eels (Muraenidae). *Biological Journal of the Linnean Society*, 109: 861-875.
- Reece, J., Noss, R.F. (*in press*). A Flexible Tool for Prioritizing Species by Conservation Value and Vulnerability to Multiple Threats. *Natural Areas Journal*.
- Korosy, M.G., Reece, J., Noss, R. (2013) Winter habitat associations of four grassland sparrows in south Florida's dry prairie. *Wilson Journal of Ornithology*, 125: 502-512.
- Krakos, K.N., Reece, J., Raven, P. (*in press*) Molecular phylogenetics and reproductive biology of Oenothera section Kneiffia. Systematic Botany.
- Reece, J. (2011) The Incredible Larvae of Moray Eels. Quest Magazine, 12, 25-27. **Featured on Cover
- Reece, J., Bowen, B.W., Larson, A. (2011). Phylogeography of four moray eel species: long larval duration ensures ocean-wide genetic homogeneity despite variation in adult niche breadth. *Marine Ecology Progress Series* 437, 269-277.
- Tucker, S.L., Reece, J., Ream, T.S., Pikaard, C.S. (2010) Evolutionary history of plant multisubunit RNA Polymerases IV and V: Subunit origins via genome-wide and segmental gene duplications, retrotransposition, and lineage-specific subfunctionalization. Cold Spring Harbor Symposia on Quantitative Biology, 75: 285-297.
- Reece, J. Smith, D.G., Holm, E. (2010) The moray eels of the *Anarchias cantonensis* group (Anguilliformes: Muraenidae), with description of two new species. *Copeia* 3, 421-430.
- Reece, J. Bowen, B.W., Larson, A.F. (2010) Molecular phylogenetics of moray eels (Muraenidae) demonstrates multiple origins of a shell-crushing jaw (*Gymnomuraena*, *Echidna*) and multiple colonizations of the Atlantic Ocean. *Molecular Phylogenetics* and Evolution 57, 829-835.
- Reece, J., Bowen, B.W., Joshi, K., Goz, V., Larson, A. (2010) Phylogeography of two moray eels indicates high dispersal throughout the Indo-Pacific. *Journal of Heredity* 101, 391-402. **Featured on Cover
- Brock, K.A., Reece, J., and L.M. Ehrhart. (2009) Effects of Artificial Beach Nourishment on Marine Turtles: Differences between Loggerhead and Green Turtles. *Restoration Ecology*, 17, 297-307.

- Reece, J., Ehrhart, L.M., and C.L. Parkinson (2006). Mixed Stock Analysis of Juvenile Loggerhead Turtles in the Indian River Lagoon and Implications for Marine Turtle Conservation Planning. *Conservation Genetics*, 7, 345-352.
- Reece, J., Castoe, T.C., and C.L. Parkinson (2005). Historical Perspectives on Population Genetics and Conservation of Three Marine Turtle Species. *Conservation Genetics*, 6, 235-251.

GRANT FUNDING AND AWARDS

\$22,325
\$9020
\$100
\$1500
\$4000
\$1500
\$2200
\$3750
\$3750
\$27,000
\$4000
\$2,700
\$3750
\$3000
\$15,000
\$13,193
\$45,254
\$22,659
\$5,000
\$200
\$600
\$26,469
\$50
\$150

Florida Fish and Wildlife Service Marine Turtle Grant Program	\$25,684
University of Central Florida Graduate Travel Award	\$800
Caribbean Conservation Corporation Mel Stark Fellowship	\$4,000
Sea Turtle Symposium Travel Award	\$650
National Speleological Society	\$871
United States Exploration Committee	\$250
Theodore Roosevelt Memorial Fund	\$1,000
Florida Fish and Wildlife Commission Marine Turtle Grant Program	\$15,050
Brevard County Shore Protection Project Marine Turtle Nesting Monitoring	\$26,057
UCF Graduate Research Enhancement Award	\$1,000
UCF Undergraduate to Graduate Fellowship	\$10,000

PRESENTATIONS

- Reece, J., Reidenbach, L.B., Noss, M., Noss, R.F., Creating high-school teaching materials that interweave sea-level rise research with Florida's Next Generation Sunshine State Standards. National Association of Biology Teachers, Atlanta, GA 2013.
- Reece, J., Noss, R. A new method for assessing vulnerability of species and communities to combined impacts of sea-level rise, climate change, and land-use change. Ecological Society of America, Portland, OR August 2012.
- Reece, J., Mehta, R, Alfaro, M., Wainwright, P., Collar, D. Multiple Ways to Crack a Shell: The Evolutionary Trajectories Leading to Imperfect Convergence in Moray Eels (Muraenidae). Evolution, Norman, OK June 2011.
- Reece, J. Mehta, R. Alfaro, M. Convergence in durophagous moray eels. Society of Integrative and Comparative Biology, Salt Lake City, UT January 2011
- Reece, J. Panmixia Across the Indo-Pacific in two species of Moray Eels (Muraenidae). ASIH, Portland, OR, July 2009
- Reece, J. Moray Eels: a phylogenetic and phylogeographic enigma? Evolution, Moscow, Idaho, June 2009
- Reece, J. Phylogeographic structure, and the lack thereof, in moray eels (Muraenidae).

 Midwestern Ecology and Evolution Conference, Lincoln, NE, March 2009. *Best Talk
 Award
- Reece, J. Phylogeography and Phylogenetics of Moray Eels. Saint Louis University, Oct. 2008
- Reece, J. Phylogeography of moray eels in the Indo-Pacific. Society of Integrative and Comparative Biology, San Antonio, Texas, Jan 2-6, 2008.
- Reece J. The green turtle (*Chelonia mydas*): Phylogeography and life-history ecology in conservation planning. Joint Meeting of Ichthyologists and Herpetologists, Tampa, Florida, June 2005.

- Alansari AS, Mahmoud IY, Al-Kindy AYA, Reece J, Siyabi SS, Al-Dhafry KS, Al-Zadjali SA, Parkinson CL. Genetic diversity in nesting green turtles, *Chelonia mydas*, at Ras Al-Hadd Reserve- Sultanate of Oman. International Sea turtle Symposium, January 2005
- Reece J, Al-Kindi AYA, Alansari AS, Parkinson CL. Preliminary findings on loggerhead and green turtle population genetic structure in the Sultanate of Oman. International Sea Turtle Symposium, January 2005.
- Reece J, Ehrhart LM, Downs C, Fauth JE. Identifying environmental co-factors associated with fibropapillomatosis in the Florida green turtle (*Chelonia mydas*). Florida Fibropapilloma green turtle workshop, December 2004.
- Reece J, Ehrhart LM, Parkinson CL. The Significance of the Indian River Lagoon as a Juvenile Foraging Ground for the Western Atlantic Loggerhead Turtle. Florida Academy of Sciences, March 2004.
- Reece J, Ehrhart LM, Parkinson CL. The genetic composition of Florida's Indian River Lagoon: Its significance as a juvenile foraging ground for the western Atlantic loggerhead turtle. International Sea Turtle Symposium, Costa Rica, February 2004.
- Reece J, Ehrhart LM, Parkinson CL. The Global Significance of the Indian River Lagoon as a Juvenile Foraging Ground for the Loggerhead Turtle. Florida Marine Turtle Permit Holders Meeting, January 2004.

PROFESSIONAL AFFILIATIONS

Professional Association of Diving Instructors Foundation (PADI)

Society of Integrated and Comparative Biology (SICB)

Evolution Society

American Association of Ichthyologists and Herpetologists (ASIH)

American Association of Underwater Scientists (AAUS)

National Speleological Foundation (NSF)

American Association for the Advancement of Science

Explorers Club

SERVICE AND COMMUNITY OUTREACH

Peer Reviewer for the following journals:

Journal of Ichthyological Research

Molecular Ecology Resources

Molecular Ecology

Molecular Phylogenetics and Evolution

Journal of Conservation Genetics

Coral Reefs

Marine Ecology Progress Series

- National Evolutionary Synthesis Center: Contributor to Phyloinformatics Vo-Camp 2009: developing the technological infrastructure to integrate phylogenetic databases with biodiversity information
- Young Scientist Program: From 2006-2010 I developed learning modules in ecology and evolution and team-taught them in local St. Louis public high schools
- Graduate Student Mentorship Program Washington University in St. Louis- I co-designed this program and mentored 5 junior graduate students
- Washington University Committees: Graduate Student Steering Committee Chair, Seminar Series Coordinator, Ecologist Hiring Committee, Departmental Chair Hiring Committee, Organizer of ArcGIS Workshop 2008.
- Scientific Outreach Lectures in St. Louis High Schools: Kennedy High School (2007), St. Joseph Academy (2008, 2009, 2010)
- Disseminating Local Research to the Community: Kaneohe Pet Shop in Oahu, HI: public speaking engagements in 2008, 2009
- R Workshop- Data formatting, principal components analyses and packages for comparative phylogenetic methods (UC Santa Cruz, Fall 2010)

TEACHING EXPERIENCE

Laboratory Instructor University of Central Florida Fall 2002

Biodiversity Course: designed tests and quizzes, developed curriculum for sophomore-level biology class.

Laboratory Instructor University of Central Florida Fall 2004

Herpetology: gave lectures, curated teaching collection, organized and led field trips collecting herpetofauna.

Laboratory Instructor University of Central Florida Spring 2003

Vertebrate Zoology and Evolution: curated teaching collection, designed practicals, gave lectures, organized local trapping and collection trips

Lecturing Teaching Assistant Washington University Spring 2006, 2007, 2009

Evolution Course: Designed and delivered lectures, wrote test questions, led weekly discussion group

Lecturing Teaching Assistant Washington University Fall 2007

Conservation Biology: grading, class lectures, and weekly discussion group

Lecturing Teaching Assistant Washington University Spring 2008, 2009, 2010

Behavioral Ecology: designed and delivered class lectures, wrote test questions, critiqued writing exercises

Lecturing Teaching Assistant Coordinator Washington University (Fall 2008)

Genetics: led group of 8 teaching assistants, gave tutorials, wrote test questions and graded examinations

Short Course/Seminars Washington University in St. Louis (Summer 2009)

Quantitative PCR and sequencing

Editing and organizing DNA sequence data

Phylogenetics

Population Genetic Analyses

Instructor: NSF/Washington University Life Sciences for a Global Community **Program** (Fall 2009)

Teaching biology high school instructors to teach science, including development of online tutorials in phylogenetics

Instructor: Special Topics- Sea Level Rise in Florida: UCF (Summer 2012)

Instructor: Conservation Biology: UCF (Fall 2012)

Professor: Freshman Biology (Spring 2013)

MENTORING

<u>University of Central Florida</u>: Höken Kalkvik (PhD student), Jenna Evans (undergraduate), Max Rotatori (High School Lab Volunteer), Jack Degner (MS student), Leah Reidenbach (undergraduate), Angela Tursi (undergraduate).

Washington University in St. Louis: Paul Hime (St. Louis Zoo), Maria Melnechuk (PhD student), Kristin Powell (PhD student), Nic Kooyers (PhD student), Emma Moran (PhD student), Andrew Bergen (PhD student), Kavita Joshi (undergrad), Vadim Goz (undergrad), Alex Strauss (undergrad), Vanessa Schroeder (undergrad), and Benjamin Jellen (St. Louis University PhD student).

University of California Santa Cruz: Undergrads: Jeff Sharick, Anja Sjostrom.

POPULAR PRESS

http://www.orlandosentinel.com/videogallery/71209920/News/Rare-Florida-sparrow-population-nearly-extinct.html

http://blogs.discovery.com/animal_news/2010/04/moray-eel-mystery.html

http://www.msnbc.msn.com/id/36565811/

http://www.susanscott.net/OceanWatch2010/apr-05-10.html

http://www.practicalfishkeeping.co.uk/content.php?sid=2736

http://news.wustl.edu/news/Pages/20523.aspx

http://www.livescience.com/animals/eels-species-genetics-100415.html

http://www.sciencedaily.com/releases/2010/04/100407121217.htm

http://www.mnn.com/lifestyle/pets-animals/stories/moray-eel-diversification-baffles-researchers

PROFESSIONAL REFERENCES

Dr. Allan Larson (PhD Advisor):

Washington University in Saint Louis, Department of Biology

One Brookings Drive

St. Louis, MO 63130

Larson@wustl.edu; 314-935-4656

Dr. Brian Bowen (mentor, collaborator)

University of Hawaii, Hawaii Institute of Marine Biology

PO Box 1346

Kaneohe, HI 96744

bbowen@hawaii.edu; 808-236-7426

Dr. Reed Noss (postdoctoral advisor) University of Central Florida 4000 Central Florida Blvd, Bldg 20 Orlando, FL 32816 Reed.noss@ucf.edu; 407-823-0975

Dr. Alan Templeton (PhD Advisor)
Washington University in Saint Louis, Department of Biology
One Brookings Drive
St. Louis, MO 63130
templeton@biology2.wustl.edu; 314-935-6868

Dr. David Smith (collaborator) Smithsonian Institution, Museum Support Center, MRC 534 4210 Silver Hill Road Suitland, MD 20746 smithd@si.edu; 301-238-1742

Dr. Todd Castoe (collaborator, MS degree student mentor) Assistant Professor, University of Texas at Arlington Todd.castoe@uta.edu; 817-272-2426