Associate Professor Earth & Environment Southeast Environmental Research Center

Dates

Dec 1995

Florida International University
Miami, FL 33199
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Unit

Environmental Studies

AREA of EXPERTISE

Behavioral, population & community ecology, coastal ecology, fish ecology and fisheries, invasion & movement ecology, ecology of recreational fisheries, effects of anthropogenic disturbance on ecological processes, responses of fish communities to hydroclimatic variation, species interactions, effects of novelty on species interactions, invasion success and impact by nonnative fishes, incorporation of citizen science into research.

Rank

ACADEMIC POSITIONS

Institution

			· · · · ·	2 0.00
Florida International University		Associate Professor	Earth & Environment	Aug 2015 - present
Florida International University		Assistant Professor	Earth & Environment	Aug 2008 - May 2015
Nova Southeastern University		Assistant Professor	Oceanographic Aug 2006 - Jul 2008 Center & Farquhar College of Arts & Sciences	
U.S. Geological Survey		Postdoc	Aquatic Ecology	Aug 2004 - Jul 2006
Florida International University		Postdoc	Biology	Aug 2003 - Aug 2004
EDUCATION				
Degree Institution		Field	Dates	
Ph.D.	University of Kentucky Bio		ological Sciences	July 2003
Dissertation: Traits underlying invasiveness: A comparison of widespread & endemic species in the genus <i>Gambusia</i> (Poeciliidae). Advisor: Andrew Sih, University of California, Davis, CA.				

PUBLICATIONS

B.S.

<u>Underlined names</u> are supervised graduate students, † are postdocs, * are undergraduate, ** are high school students. IF = 5-year impact factors obtained from ISI Web of Knowledge

Florida International University

Articles

- 37. <u>Lee, J.A., **J.S. Rehage** & M.V. Lauretta. *In review.* Survival of Florida Largemouth Bass in a coastal refuge habitat across years of drying severity. Canadian Journal of Fisheries & Aquatic Sciences.</u>
- 36. Santos, RO†, **JS Rehage**, E<u>Kroloff</u>, A Adam, JE Osborne, *Accepted pending revisions*. Assessing temporal trends in data-poor fisheries: integration of local ecological knowledge with fishery-dependent data in the recreational bonefish fishery. PLos ONE.
- 35. <u>Boucek, RE</u>, Heithaus MR, Santos RO, Stevens P, **Rehage JS**. In press. Can animal habitat use patterns influence their vulnerability to extreme climate events? An estuarine sportfish case study. Global Change Biology.
- 34. Matich, P, JS Ault, <u>RE Boucek</u>, DE Bryan, KR Gastrich, CL Harvey, MR Heithaus, JJ Kiszka, V Paz, **JS Rehage**, AE. Rosenblatt. **2017.** Ecological niche partitioning within a large predator guild in a nutrient-limited estuary. Limnology & Oceanography, DOI: 10.1002/lno.10477
- 33. <u>Gandy, D.A.,</u> & **J.S. Rehage**. 2017. Examining gradients in ecosystem novelty: Fish assemblage structure in an invaded, human-modified Everglades environment. Ecosphere, 10.1002/ecs2.1634
- 32. <u>Boucek, RE</u>, Soula, M.J.*, F. Tamayo**, & **J.S. Rehage**. 2017. A decadal drought alters the magnitude, composition and quality of a floodplain trophic subsidy to coastal river fishes. Canadian Journal of Fisheries & Aquatic Sciences. Doi: 10.1139/cjfas-2015-0507
- 31. Rehage, J.S. & <u>J.R. Blanchard</u>. 2016. Implications of climate change for fish invasion success, impact and management. Fisheries 41: 405-407. Doi:10.1080/03632415.2016.1180287
- 30. <u>Boucek, R.E.</u>, Gaiser, E.E., Liu, H., Rehage, J.S. 2016. Developing three general hypotheses of subtropical community and ecosystem responses to extreme cold spells. Ecosphere. 10.1002/ecs2.1455
- 29. Santos, R.O.†, <u>R.E. Boucek</u> & **Rehage, J.S.** 2016. Shift in recreational fishing catches as a function of an extreme cold event. Ecosphere. Doi: 10.1002/ecs2.1335
- Stevens, P.W., D.A. Blewett, <u>R.E. Boucek</u>, **J.S. Rehage**, B.L. Winner, J.M. Young, & J.A. Whittington. 2016. Variation in population resilience following a severe cold event for a tropical sport fish, Common Snook Centropomus undecimalis, in southern Florida. Ecosphere. 10.1002/ecs2.1400
- 27. **Rehage**, J.S., <u>J.A. Blanchard</u> & <u>R.E. Boucek</u>. 2016. Knocking back invasions: the effect of an extreme cold events on nonnative Everglades fishes. Ecosphere, Doi:10.1002/ecs2.1268.
- 26. <u>Edwards, C.L.,</u> **J.S. Rehage** & J.E. Heinen. In review. Perspectives of recreational Anglers on mercury advisories in the Florida Everglades. Florida Scientist.
- Edwards, C.L. J.E. Heinen & J.S. Rehage. 2016. Recreational angler perspectives on nonnative fish species. Human Dimensions of Wildlife 21: 144-157. DOI: 1 0.1080/10871209.2015.1111472
- 24. **Rehage, J.S.**, <u>D.P. Lopez</u>, M. Anderson* & J.J. Serafy. 2015. On the mismatch between salinity tolerance and preference for an invasive fish: a case for incorporating behavioral data into niche modeling. Journal of Experimental Marine Biology and Ecology 417:58-63. http://dx.doi.org/10.1016/j.jembe.2015.05.002.
- 23. **Rehage, J.S.,** <u>R.E. Boucek & J.A. Lee.</u> 2015. Mangrove habitat use by resident vs. migrant sportfishes in the coastal Everglades. Proceedings of the 2nd Mangroves as Fish Habitat meeting. Special Publication of the American Fisheries Society.
- 22. <u>Boucek, R.E.</u> and **J.S. Rehage**. 2015. Effects of an episodic drought on a floodplain subsidy consumed by mangrove river fishes. Proceedings of the 2nd Mangroves as Fish Habitat Meeting. Special Publication of the American Fisheries Society.

- Boucek, R.E. & J.S. Rehage. 2014. Climate extremes drive changes in functional community structure. Global Change Biology 20:1821-1831. IF = 6.91 (# 1 ranked journal in biodiversity conservation 1/40).
 - Featured in FIU News article, May 2014. http://news.fiu.edu/2014/05/researchers-study-effects-of-rare-climate-extremes-on-fish-communities/77789
- 20. <u>Boucek, R.E.</u> & **J.S. Rehage.** 2014. Exotic foods: examining the effectiveness of consumer diet sampling as a nonnative early detection tool in a subtropical estuary. Transactions of the American Fisheries Society 143:489-494. DOI: 10.1080/00028487.2013.862180. IF = 1.869.
- 19. **Rehage, J.S.,** A. Saha†, M. Cook, <u>R.E. Boucek</u>, E. Cline & M. Kobza. 2013. Turning passive detection systems into field experiments: an application using wetland fishes and enclosures to track fine-scale movement and habitat choice. Acta Ethologica 17: 53-61. DOI 10.1007/s10211-013-0154-4. IF = 1.247.
- Boucek, R.E. & J.S. Rehage. 2013. A tale of two fish: using recreational angler records to examine the link between fish catches and freshwater inflows in a subtropical mangrove estuary. Estuaries & Coasts 32: 37-53. DOI 10.1007/s12237-013-9710-4. IF = 2.560. Featured in a *Miami Herald* article, July 2013: http://www.miamiherald.com/2013/07/18/3505486/local-anglers-tag-fish-for-fiu.html
- 17. Robertson, B.A., **J.S. Rehage** and A. Sih. 2013. Ecological novelty, and the emergence of evolutionary traps. Trends in Ecology & Evolution 28: 552-560. 10.1016/j.tree.2013.04.004. IF = 17.112.

Featured in the **cover** of the journal Trends in Ecology & Evolution: http://www.cell.com/trends/ecology-evolution/issue?pii=S0169-5347(13)X0009-6
Featured in *National Geographic* news story by science reporter C. Zimmer, June 2013: http://phenomena.nationalgeographic.com/2013/06/05/freeing-animals-from-our-evolutionary-traps/

Featured in NPR's Radiolab, June 2013:

 $\frac{http://www.npr.org/blogs/krulwich/2013/06/19/193493225/the-love-that-dared-not-speak-its-name-of-a-beetle-for-a-beer-bottle}{}$

Featured in *FIU News* online, July 2013:

http://news.fiu.edu/2013/07/fiu-ecologist-wants-to-free-species-from-evolutionary-traps/64114

- 16. **Rehage, J.S.**, K.J. Dunker, S.E. Liston & W.F. Loftus. 2014. Fish community responses to the combined effects of decrease hydroperiod and non-indigenous fish invasions in a karst wetland: Are Everglades solution holes sinks for native fishes? Wetlands. DOI: 10.1007/s13157-012-0361-1. IF = 1.802.
- 15. Kline, J.L., W.F. Loftus, K. Kotun, J.C. Trexler, **J.S. Rehage,** J.J. Lorenz & M. Robinson. 2014. Recent fish introductions into Everglades National Park: An unforeseen consequence of water-management? Wetlands. DOI 10.1007/s13157-012-0362-0. IF = 1.802.
- 14. <u>Boucek, R.E.</u> & Rehage, J.S. 2013. No free lunch: Consumers from a donor marsh community regulate a prey subsidy to an estuarine consumer. Oikos 122: 1453-1464. DOI: 10.1111/j.1600-0706.2013.20994.x. IF = 3.882.

 Article is featured in blog for the journal Oikos (only 2 articles per issue are invited to take
 - part in blog): http://oikosjournal.wordpress.com/2013/04/04/birthday-checks-hungry-bears-and-subsidy-dynamics-in-the-everglades/
- 13. McCarthy, L.M., W.F. Loftus & **J.S. Rehage**. 2012. Segregation of palaemonid shrimp along an Everglades estuarine gradient: Do multiple species have similar trophic function? Bulletin of Marine Science 88: 843-861. DOI: http://dx.doi.org/10.5343/bms.2011.1058. IF = 1.695.
- 12. <u>Gandy, D.A.</u>, **J.S. Rehage**, J.W. Munyon, K.B. Gestring & J.I. Galvez. 2012. Canals as vectors for fish movement: potential southward range expansion of *Lepisosteus osseus* L. (Longnose Gar) in South Florida. Southeastern Naturalist 11: 253-262. IF = 0.487.

- 11. <u>Lopez, D.P.</u>, A.A. Jungman* & **J.S. Rehage.** 2012. Nonnative African jewelfish are more fit but not bolder at the invasion front: a trait comparison across an Everglades range expansion. Biological Invasions 14: 2159-2174. IF = 3.027.
- 10. <u>Porter-Whitaker, A., J.S. Rehage, W.F. Loftus, & S.E. Liston.</u> 2012. Multiple predator effects & native prey responses to two non-native Everglades cichlids. Ecology of Freshwater Fishes 21: 375-385. IF = 2.095.
- 9. <u>Dunlop, K.L.</u> & **J.S. Rehage**. 2011. Antipredator behavior and cue recognition of multiple Everglades prey to a novel cichlid predator. Behaviour 148: 795-823. IF = 1.746.
- 8. Sih, A., D.I. Bolnick, B. Luttbeg, J.L. Orrock, S.D. Peacor, L.M. Pintor, E. Preisser, **J.S. Rehage**, & J.R. Vonesh. 2010. Predator-prey naiveté, antipredator behavior & the ecology of predator invasions. Oikos 119: 610-621. IF = 3.882.
- 7. **Rehage, J.S.**, <u>K.L. Dunlop</u>, & W.F. Loftus. 2009. Antipredator responses by native mosquitofish to non-native cichlids: an examination of the role of prey naiveté. Ethology 115: 1-11. IF = 1.954.
- Rehage, J.S. & W.F. Loftus. 2007. Seasonal fish community variation in mangrove creeks in the southwestern Everglades: an examination of their role as dry-down refuges. Bulletin of Marine Science. 80: 625–645. IF = 1.695.
- 5. **Rehage, J.S.** & J.C. Trexler. 2006. Assessing the net effect of anthropogenic disturbance on aquatic communities in wetlands: Community structure relative to distance from canals. Hydrobiologia 569: 359-373. IF = 2.270.
- 4. Rehage, J.S., B.K. Barnett* & A. Sih. 2005. Foraging behavior & invasiveness: Do invasive *Gambusia* exhibit higher feeding rates & broader diets than their non-invasive relatives? Ecology of Freshwater Fish 14: 352-360. IF = 2.095.
- 3. **Rehage, J.S.**, B.K. Barnett* & A. Sih. 2005. Behavioral responses to a novel predator & competitor of invasive mosquitofish & their non-invasive relatives (*Gambusia* sp.). Behavioral Ecology & Sociobiology 57: 256-266. IF = 2.942.
- Rehage, J.S. & A. Sih. 2004. Dispersal behavior, boldness & the link to invasiveness: A comparison of four *Gambusia* species. Biological Invasions 6: 379-391. IF = 3.027.
- 1. **Rehage, J.S.**, S.G. Lynn, J.I. Hammond, B.D. Palmer & A. Sih. 2002. Effects of larval exposure to Triphenyltin on the survival, growth, & behavior of larval & juvenile *Ambystoma barbouri*. Environmental Toxicology & Chemistry 21: 807-815. IF = 2.991.

Book Chapters

Rehage, J.S., J. Cote & A. Sih. *2017*. The role of dispersal behaviour and personality in post-establishment spread. In Weis, J. and D. Sol, *Biological Invasions and Animal Behaviour*. Cambridge Press.

Book Reviews

Rehage, **J.S**. 2014. *Book review, Biological Conservation*. Behavioral responses to a changing world (edited by U. Candolin & B.B.M Wong), Oxford Press.

Government Reports

<u>Underlined names</u> are supervised graduate students, † are postdocs, †† are research technicians

Data & text were contribute to the following reports:

 2014 System Status Report (SSR) to U.S. Congress and other agencies on the progress of the Comprehensive Everglades Restoration Plan (CERP). This report is produced every two years and details Everglades restoration progress, and status and trends of key restoration performance measures: http://www.evergladesplan.org/pm/recover/recover.aspx

We compiled and wrote a section of the 2014 SSR on the effects of the 2010 cold snap. http://74.223.38.247/pm/ssr 2014/ssr cold event 2014.aspx

- Our research is featured in the Key Findings section of the 2014 SSR report. The Key Findings provide a summary of Everglades knowledge gained for policy makers and resource managers: http://74.223.38.247/pm/ssr 2014/mod kf 2014.aspx
- 2. 2013 South Florida Environmental Report. Chapter 6: Everglades Research & Evaluation, F. Sklar and T. Dreschel. South Florida Water Management District, West Palm Beach, FL. http://my.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_prevreport/2013_sfer/v1/vol1_table_of_contents.html.
- 3. 2012 System Status Report (SSR) to U.S. Congress and other agencies on the progress of the Comprehensive Everglades Restoration Plan (CERP). This report is produced every two years and details Everglades restoration progress, and status and trends of key restoration performance measures:
 - http://www.evergladesplan.org/pm/ssr_2012/ssr_main_2012.aspx and http://www.evergladesplan.org/pm/ssr_2012/hc_ge_pred_prey_2012.aspx
- 4. 2009 System Status Report (SSR) to U.S. Congress and other agencies on the progress of the Comprehensive Everglades Restoration Plan (CERP). This report is produced every two years and details Everglades restoration progress, and status and trends of key restoration performance measures:
 - http://www.evergladesplan.org/pm/ssr 2009/ssr main.aspx
- Florida Coastal Everglades Long-Term Ecological Research Program Annual Reports to National Science Foundation, 2008-2013 by Dr. E. Gaiser et al. http://fcelter.fiu.edu/research/proposals_reports/

Non-refereed publications

- 1. <u>Gandy, D.A.</u> & **J.S. Rehage**. FIU researchers ask for anglers' help in fish tagging study. The City Fisher 47: Jan-Mar 2012. http://myfwc.com/news/resources/columns/city-fisher/
- Harvey, R.G., W.F. Loftus, J.S. Rehage & F.J. Mazzotti. 2011. Effects of canals and levees on Everglades ecosystems. UF/IFAS Publication WEC304. http://edis.ifas.ufl.edu/uw349
- 3. **Rehage, J.S.,** E. Gaiser, M. Heithaus, M. Ross & P. Ruiz. 2010. Effects of a rare cold snap on Everglades biota: what are the long-term consequences for the ecosystem? LTER Network Newsletter 23-1. http://news.lternet.edu/spring-2010

PRESS ABOUT OUR RESEARCH

<u>Underlined names</u> are supervised graduate students

- WLRN's Topical Currents features our work on extreme cold events for their radio show http://wlrn.org/post/temperature-dips-and-south-florida-vegetation, Feb 2017.
- Sport Fishing TV features a segment on our work in the lakes in their Florida Bay show, February 2017, http://www.sportfishingmag.com/sport-fishing-television
- The Snook & Gamefish Foundation features article on our work in Joe Bay, March 2107 http://snookfoundation.org/content/angler-data-helps-re-open-joe-bay-fishing-after-nearly-40-years-closure
- The Ocean Tracking Network features a story on our research in the lakes, 2017, http://oceantrackingnetwork.org/first-results-of-otn-supported-snook-and-tarpon-project-

- in-the-florida-everglades/
- The Florida Keys newspaper featured an article on our research on recreational fisheries in Florida Bay, March 2017. http://floridakeystreasures.com/2017/03/01/gray-ghosts-disappearing-bonefish-research/
- FIU News article features our research in Joe Bay, April 2017.

 http://news.fiu.edu/2017/04/scientists-study-portion-of-everglades-closed-to-people-for-decades/110819
- Florida Sportsman features our research, February 2017,
 - http://www.floridasportsman.com/2017/02/03/joe-bay-reopens-everglades-newest-motor-zone/
- Our special issue in Ecosphere is featured by NSF, October 2016, https://www.nsf.gov/news/news_summ.jsp?cntn_id=189705
- Guy Harvey news features our research, December 2015, http://guyharveyoutpostnews.com/2015/12/01/urgently-needed-bone-reports-from-south-florida/
- The Florida Keys newspaper featured an article on our research on recreational fisheries in Florida Bay, September 2015, Bonefish population center of new study
- Florida Sportsman and Guy Harvey magazine feature our survey of bonefish anglers, Sept 2015. http://www.floridasportsman.com/2015/08/19/help-south-florida-bonefish-populations/ http://guyharveymagazine.com/take-a-survey-on-bonefishing-for-btt-research/
- FIU News article featuring our survey of bonefish anglers by MS student Emily Kroloff, Sept 2015. https://news.fiu.edu/2015/09/project-bay-bones-investigates-bonefish-decline/92154
- Research featured on Jeff Corwin's Ocean Mysteries (ABC), May 23, 2015. http://www.littonweekendadventure.com/ocean-mysteries/.
- Article in The Miami Herald featured an article on our new study on bonefish in Florida Bay, Nov 2014. http://www.miamiherald.com/sports/outdoors/article4125051.html
- Angler magazine 'FISHSENS' featured an article on new research on snook recruitment and angler catches funded by the Everglades Foundation, Nov 2014.

 http://magazine.fishsens.com/researchers-developing-snook-production-forecast-protect-tourism-industry.htm
- Video by nonprofit organization Encounters in Excellence featuring our electrofishing sampling in the Shark River, Everglades National Park and our work involving recreational anglers, Fall 2014. http://www.odysseyearth.com/
- Article in Florida Sportsman magazine featuring our research involving recreational anglers, Oct 2014. http://cast.fiu.edu/index.php/news/
- Article in the Coastal Angler magazine featuring our research involving recreational anglers, July 2014. www.coastalanglermag.com.
- Article in the *Miami Herald* featuring our research involving recreational anglers, July 2013. http://www.miamiherald.com/2013/07/18/3505486/local-anglers-tag-fish-for-fiu.html
- Story brief forthcoming in *FIU Magazine* (Fall 2013) featuring ecological traps research from Trends in Ecology & Evolution publication, http://news.fiu.edu/magazine/archives/fiu-magazine-fall-2013
- NPR's *Radiolab* article featuring Trends in Ecology and Evolution 2013 publication. http://www.npr.org/blogs/krulwich/2013/06/19/193493225/the-love-that-dared-not-speak-its-name-of-a-beetle-for-a-beer-bottle
- National Geographic article by C. Zimmer featuring Trends in Ecology and Evolution 2013 publication. http://phenomena.nationalgeographic.com/2013/06/05/freeing-animals-from-our-evolutionary-traps/

- FIU News article featuring Everglades Foundation funding to PhD student Ross Boucek, Oct 2014. http://news.fiu.edu/2014/10/biologist-reels-in-data-to-predict-snook-production/82190
- FIU News article featuring Global Change Biology 2014 publication, May 2014. http://news.fiu.edu/2014/05/researchers-study-effects-of-rare-climate-extremes-on-fish-communities/77789
- FIU News article featuring Trends in Ecology and Evolution 2013 publication, July 2013. http://news.fiu.edu/2013/07/fiu-ecologist-wants-to-free-species-from-evolutionary-traps/64114
- FIU News article on <u>Jessica Lee's</u> citizen science research, MS student in my lab, May 2013. <u>http://news.fiu.edu/2013/05/grad-student-launches-science-team-to-examine-everglades-restoration-efforts/62290</u>
- FIU News article featuring new National Science Foundation grant on Water Sustainability and Climate Change in the Everglades (Dr. M. Sukop is PI, Dr. J.S. Rehage is co-PI), March 2013. http://news.fiu.edu/2013/03/fiu-leads-national-study-on-south-floridas-water-supply/53497
- Beacon student newspaper article featuring research by graduate student Diana Lopez (MS' 2011), 'Graduate student collects carnivorous fish, perform experiments', Sept. 2009. http://fiusm.com/2009/09/04/graduate-student-collects-carnivorous-fish-perform-experiments/

Web-based publications by members of our lab

- High-schooler digs the Everglades, article by high school student Felipe Tamayo, LTER Network News Fall 2014, Vol 27, http://news.lternet.edu/Article3094.html
- Student musings form the LTER ASM, article by REU (Research Experiences for Undergraduates) undergraduate student Mari Soula*, FCE LTER Newsletter, Fall 2012, http://fce.lternet.edu/about_us/news/newsletter/FCENewsV2N3FINAL.pdf
- My first scientific conference, article by REU (National Science Foundation Research Experiences for Undergraduates) undergraduate Mari Soula, LTER Network News Fall 2012, Vol 25, http://news.lternet.edu/Article2616.html
- Blog post by PhD student R.E. Boucek on the blog of the scientific journal Oikos: http://oikosjournal.wordpress.com/2013/04/04/birthday-checks-hungry-bears-and-subsidy-dynamics-in-the-everglades/ only 2 articles per issue are selected and the authors are invited to write a blog about the publication.
- Blog posts by members of my lab in *Wading Through Research*, FCE LTER student blog: http://floridacoastaleverglades.blogspot.com (PhD student R.E. Boucek & undergraduate M. Soula).
- Blog entries by members of my lab in *From Reefs to Rivers: Florida's Fisheries Science Blog*, student led blog, Florida Chapter of the American Fisheries society: http://floridafisheriesscience.blogspot.com/
- Research website developed by MS student J. Lee on her project involving recreational anglers in a citizen science of mark-recapture study of fishes in Everglades National Park, www.cast.fiu.edu.

RESEARCH FUNDING

<u>Underlined</u> names are graduate students, † are postdocs, & * are undergraduate students For multi-PI awards, total amount is shown, with amount awarded to J.S. Rehage in parenthesis

Funding at FIU: \$ 2,517,249 awarded directly to JS Rehage \$ 7,146,249 awarded as co-PI

- **J.S. Rehage (PI),** R. Santos, R.E. Boucek, P. Frezza, J.J. Lorenz, P. Stevens, J. Ley, K. Flaherty-Wallia, M. Matheson. 2017. Assessing the effects of closure of Joe Bay on recreational fisheries. Everglades National Park, \$ 130,000 (\$90,100 to JS Rehage, Year 2 is pending).
- **J.S. Rehage (PI),** T. Frankovich, & R.O. Santos. 2015-2017. Role of Florida Bay coastal embayments as fish habitat: use by indicator and valuable recreational species. South Florida Water Management District, \$ 199,688.
- J.S. Rehage (PI). 2008- 2017. Role of marsh-mangrove habitats as refuges for dry-down refuges for marsh fishes. RECOVER (Restoration Coordination & Verification), Comprehensive Everglades Restoration Plan, US Army Corps of Engineers, \$ 785,191.
- J.S. Rehage (PI). 2010-2016. Habitat selection & movement of Everglades fishes in response to seasonal hydrology-empirical study at LILA (Loxahatchee Impoundment Landscape Assessment), South Florida Water Management District, \$ 222,750.
- J.S. Rehage, R. Santos†, and T. Frankovich (co-PI). 2016. Examining the trophic ecology of fishes in coastal lakes. National Science Foundation, Florida Coastal Everglades Long term Ecological Research (DBI-0620409), Research Experiences for Undergraduates (REU), \$5.000.
- **J.S. Rehage (PI),** R. Santos, T. Frankovich and M Heithaus. Establishing an acoustic array in the coastal Everglades lakes. Equipment loan proposal to OTN (Ocean Tracking Network), \$ 70,000 value, 2 year loan.
- **J.S Rehage (PI),** R.E. Boucek, M. Heithaus, K. Gartrich, & P. Matich. 2015. Improving our understanding of consumer mediated trophic linkages in the Everglades. Florida Coastal Everglades Long term Ecological Research supplemental funding, \$ 97,020.
- **J.S. Rehage (PI)**, H.O. Briceno, P.R. Gardinali & R. Santos Corujo†. 2015. Effects of contaminants on coastal fisheries: implications for bonefish in South Florida. Bonefish & Tarpon Trust, \$ 42,609.
- J.S. Rehage (PI), R.E. Boucek, H.O. Briceño, J.W. Fourqurean, M.O. Hall (FWC), J.H. Heinen, J.K. Osborne (NPS) & M.B. Robblee (USGS). 2014-2017. Bonefish declines in Florida Bay: an integrative geospatial retrospective analysis of patterns & drivers. Bonefish & Tarpon Trust, \$369,050 (http://www.bonefishtarpontrust.org/).
- M. Ross & J.S. Rehage (co-Pl). 2012-2014. Abundance, distribution & occupancy of natural nests of the Key Largo woodrat in relation to forest succession. US Fish and Wildlife Service, \$38,500 to JS Rehage.
- M. Sukop, R. Jaffe, **J.S Rehage (co-PI)**, M. Bhat, & P. Mozumder. 2013-2017. Robust decision-making for south Florida water resources by ecosystem service valuation, hydro-economic

- optimization, and conflict resolution modeling. National Science Foundation, Water Sustainability and Climate Change (WSC-Category 2), \$ 4,589,000 (\$ 1,443,863 to FIU, \$ 281,735 to J.S. Rehage).
- **J.S. Rehage (PI).** 2010-2013. Assessing the impact & potential for containment of non-native fishes across Everglades habitats. Critical Ecosystem Studies Initiative (CESI), National Park Service, \$ 295,206 (Funding rate = 9%; 8 projects funded out of 89 submitted proposals).
- **J.S. Rehage (PI)**. 2012. Inventory of fishes in the Homestead Air Force Base, US Air Force, \$ 5,400.
- J.S. Rehage (PI), R.E. Boucek, & M.J. Soula*. 2011-2012. Assessing prey quality along a freshwater-estuarine gradient. National Science Foundation, Florida Coastal Everglades Long term Ecological Research (DBI-0620409), Research Experiences for Undergraduates (REU), \$ 5,000.
- M. Sukop, W. Anderson, M. Bhat, R. Jaffe, **J.S. Rehage (co-PI)**, D.T. Ho & J.D. Fuentes. 2010-2011. Linking freshwater inputs to ecosystem functioning and services provided by a large mangrove estuary. National Science Foundation, Water Sustainability and Climate Change (WSC-Category 1), \$ 124,225 (\$ 10,000 to J.S. Rehage).

Research funding awarded to graduate students: \$81,450

(Not reflected in funding totals shown above)

- C. Eggenberger 2017 Vemco Student Fellowship. Discounted acoustic equipment. 2017.
- R.E. Boucek, 2015 Guy Harvey Scholar, \$ 5,000. Using acoustic telemetry to better understand the spawning behavior of snook in the Everglades. https://www.flseagrant.org/news/2015/06/meet-the-2015-guy-harvey-scholars/
- R.E. Boucek, and J.S. Rehage (co-PI). 2015-2016. Metanalysis of the effects of disturbance on trophic subsidies. National Science Foundation, Florida Coastal Everglades Long term Ecological Research (DBI-0620409), Research Experiences for Undergraduates (REU), \$6.750.
- <u>R.E. Boucek.</u> 2014. Using interannual variation in a hydrologic regime to predict spawning, recruitment, and angler catches of a recreationally-important fish in the Everglades. Everglades Foundation, \$ 10,000.
- <u>V. Trujillo.</u> 2014. Stress-mediated effects of nonnative African jewelfish on native Everglades fishes: implications for invasion success & impact. Animal Behavior Society, \$ 1,200.
- <u>J.A. Lee.</u> 2013. Integration of recreational anglers into fisheries research: using citizen science to expand a mark recapture study in the coastal Everglades. Marine Conservation Grants from West Marine Inc. http://www.prnewswire.com/news-releases/west-marine-awards-35000-in-marine-conservation-grants-in-honor-of-world-oceans-day-158084365.html, \$ 1,500.
- J.A. Lee. 2013. Integration of recreational anglers into fisheries research: using citizen science to expand a mark recapture study in the coastal Everglades. Graduate Student Research Funding Award, Florida Coastal Everglades Long term Ecological Research (FCE LTER), \$1,000. http://www.evergladesfoundation.org/wp-content/uploads/2011/11/2012-Selected-Applicants.pdf
- <u>J.A. Lee</u>. 2012. Integration of recreational anglers into fisheries research: using citizen science to expand a mark recapture study in the coastal Everglades. Everglades Foundation Student Fellowship, 2012, \$5,000 (1 of only 2 awards awarded in 2012, funding rate is 10%).

- http://www.evergladesfoundation.org/wp-content/uploads/2011/11/2012-Selected-Applicants.pdf.
- R.E. Boucek, M. Heithaus & J.S. Rehage (co-PI). 2011. Integration of mesoconsumers into Florida Coastal Everglades movement and trophic dynamics. National Science Foundation, Florida Coastal Everglades Long term Ecological Research (DBI-0620409) Supplemental Funding, \$ 10,000.
- R.E. Boucek. 2011-12. Integration of mesoconsumers into estuarine movement and trophic dynamics. Cristina Menendez Fellowship, Southeast Environmental Research Center, FIU, \$ 7.500.
- <u>D.A. Gandy</u>. 2011-2012. Using stationary receivers as a long-term approach to monitor fish movements across canals bordering Everglades National Park. Cristina Menendez Fellowship, Southeast Environmental Research Center, FIU, \$ 7,500.
- <u>D.A. Gandy.</u> 2011-2012. The role of canals as potential dispersal vectors for nonnative fishes into Everglades National Park and factors influencing fish community structure. Everglades Foundation Student Fellowship, \$ 10,000 (1 of only 3 awards given in 2011, only one awarded to an MS student, funding rate is 10%). http://www.evergladesfoundation.org/wp-content/uploads/2011/11/Scholarship-Selected-Applicants-2011.pdf
- <u>D.A. Lopez</u>. 2009-2010. Examination of the spread, dispersal & boldness of nonnative African jewelfish in the Everglades. Everglades Fellowship, Southeast Environmental Research Center, FIU, \$ 15,000.

Funding awarded at NSU: \$ 154,904 (2006-2008)

- **J.S. Rehage (PI)**. 2008. Mangroves as habitat & dry-season refuges for freshwater fishes. South Florida Water Management District, \$ 69,904.
- **J.S. Rehage (PI)** & <u>K.L. Dunlop.</u> 2008. Cue recognition & prey responses to non-native Everglades fishes. Nova Southeastern University President's Faculty Research & Development Grant, \$10,000.
- **J.S. Rehage (PI)** & <u>L.M. McCarthy</u>. 2008. Distribution of Palaemonid shrimp along the Shark River estuary: salinity gradients and implications for trophic function. Nova Southeastern University President's Faculty Research & Development Grant, \$ 10,000.
- **J.S. Rehage (PI)**. 2007. Fish dynamics at the marsh-mangrove ecotone in the Shark River estuary, Everglades National Park. U.S. Geological Survey, \$ 70,000.

Funding awarded as a postdoc: \$ 70,130 (2005-2006)

- W.F. Loftus, **J.S. Rehage (co-PI)** & S.E. Liston. An evaluation of the impact of two introduced cichlids on native fish communities in Everglades wetlands. US Geological Survey Park-Oriented Biological Support, 2005-2006, \$ 40,000.
- W.F. Loftus, **J.S. Rehage (co-PI)** & J.C. Trexler. Introduced fishes in short-hydroperiod wetlands: evaluation of sampling, status, & potential effects. Critical Ecosystem Studies Initiative (CESI), National Park Service, 2005, \$30,130.

MENTORING

Postdoctoral Fellows

 Rolando Santos, PhD University of Miami. Relating bonefish dynamics to environmental drivers in South Florida. 2015-present.

- <u>David Stormer</u>, PhD University of Massachusetts. Recreational fisheries dynamics in the coastal Everglades. 2016-present
- Amartya Saha, PhD University of Miami. Fine-scale movements of fishes in relation to hydrological variation. 2012-2013.

Current graduate students: 1 MS & 2 PhD

- o <u>Jesse Blanchard</u>, Ph.D. Earth Systems. Metacommunity assembly in an epheremal habitat: role of traits, invasions and personality-type Expected completion: Fall 2017.
- <u>Carissa Gervasi</u>, PhD, Earth Systems. Effects of fishing induced evolution on fishes.
 Expected defense: 2021.
- o <u>Cody Eggenberger</u>, MS, Environmental Studies. Habitat use and distribution of recreational fisheries in relation to variation in enrichment. Expected defense: 2019.

Past graduate students at FIU: 2 PhD, 9 MS Thesis & 1 MS non-Thesis

- Vanessa Trujillo, PhD Biology, Spring 2017. The effects of stress caused by nonnative African jewelfish: implications for invasion success & impact.
- Ross Boucek, PhD Biology, Fall 2015. Resource use and movement of key recreational fisheries in coastal Everglades in relation to hydrology.
- Emily Kroloff, MS Environmental Studies, Summer 2016. Reconstructing the decline of bonefish in Florida Bay with angler knowledge. Co-advised with Dr. Joel Heinen
- Christine Beck, MS Environmental Studies, Fall 2016. Examining the threat of contaminants to bonefish in South Florida.
- o <u>Gregory Hill</u>, MS Environmental Studies, Spring 2017. Fish movement and habitat selection in response to hydrological variation.
- Jessica Lee, MS Environmental Studies, Spring 2015. Integration of recreational anglers into fisheries research: using citizen science to expand a mark-recapture study in the coastal Everglades.
- <u>Lauren Barth</u>, MS Environmental Studies, Fall 2014. Habitat use in relation to forest structure by the endangered Key Largo woodrat.
- Christopher Edwards, MS Environmental Studies, Fall 2013. Fisherman's values and awareness of nonnative fishes.
- <u>David Gandy</u>, MS Environmental Studies, Summer 2013. Everglades canals as habitat for nonnative fishes: examining gradients in ecosystem novelty.
- Ross Boucek, MS Environmental Studies, Fall 2011. Resource partitioning among four mesoconsumers at the marsh-mangrove ecotone: responses to dry-season resource pulses.
- <u>Diana Lopez</u>, MS Environmental Studies, Summer 2011. Examination of the spread, dispersal & boldness of nonnative African jewelfish in the Everglades.
- Shelby Moneysmith, non-Thesis MS Environmental Studies, Fall 2010. Utility of creel data to examine fisheries trends in Biscayne National Park.

Past graduate students at NSU: 5 MS Thesis & 2 MS non-Thesis

- <u>Tiffany Trent</u>, M.S. NSU Spring 2010. Effects of periphyton nutrient content on the growth & survivorship of Florida apple snails in the Loxahatchee National Wildlife Refuge.
- Kate Dunlop, M.S. NSU Fall 2009. Examination of cue utilization & anti-predator responses by native Everglades taxa to a non-native predator, the African jewelfish.
- Megan Seese, M.S. NSU completed Fall 2009. Evaluation of the role of *Laurencia* spp in *Thalassia testudinum* beds in Abaco, Bahamas as habitat for juvenile fishes &

- macroinvertebrates.
- <u>Lauren McCarthy</u>, M.S. NSU Summer 2009. Segregation of palaemonid shrimp species along a salinity gradient in Shark River, Everglades National Park.
- Ashley Porter-Whitaker, M.S. NSU Fall 2008. Comparison of predatory effects of two non-native cichlid predators in Everglades marshes. *Non-Thesis Students:*
- Deborah Zeyen, M.S. NSU Spring 2010 (nonthesis). Evaluation of action plans to restore oysters to the Chesapeake Bay based on an assessment of possible outcomes.
- <u>Dina Benes</u>, M.S. NSU Fall 2010 (nonthesis). The evidence for invasional meltdown: the Great Lakes as a case study.

Current Graduate Committees:

- Alain Duran, Ph.D. FIU Biology. Major professor: D. Burkepile. Top-down control of macroalgae by parrotfishes. Expected completion: Summer 2017.
- Bradley Strickland, PhD FIU Biology. Major professor. M Heithaus. Assessing the role of alligators as ecosystem engineers. Expected completion: Summer 2017.
- <u>Christina Brown</u>, PhD FIU Earth Systems. Major professor, M Bhat. Applying economic tools to recreational fisheries in an model optimization setting. Expected completion: Summer 2017.
- Mohd Manzar Abbas, MS Environmental Studies. Major professor. A Melesse.
 Modification of benthic class specific chlorophyll-a retrieving algorithm for SeaWiFS.
 Expected completion: Summer 2017.

Past Graduate Committees:

- Chandra Fadoul. MS FIU Earth & Environment, Fall 2016. Major professor: G. Rand. Effects of oil and oil dispersants on the development and larval behavior of native Gulf of Mexico fish species.
- Mehrnoosh Asadi. MS FIU Earth & Environment, Fall 2016. Major professor: P. Mozumder. Economic valuation of Florida recreational fisheries.
- <u>Jennifer Sweatman</u>, PhD FIU Biology, Fall 2016. Major professor: J. Fourqurean. Community response to nutrient enrichment and decreased connectivity. Expected completion.
- <u>Laura Bhatti</u>, PhD FIU Biology, Fall 2014. Major professor: D. Burkepile. Impacts of habitat use choice and diet of herbivorous fish on marine benthic communities.
- Sarah Strand, MS FIU Earth & Environment, Fall 2014. Major professor: B. Anderson. Using stable isotopes as anthropogenic indicators of effluent impacts on coastal marine ecosystems.
- Joshua Diamond, MS. FIU Earth & Environment, Summer 2014. Major professor: M. Ross. Tracking tropical hardwood hammock succession using LIDAR imagery.
- Philip Matich, PhD FIU Biology, Spring 2014. Major professor: M. Heithaus. Habitat use, diet & movements of juvenile bull sharks (Carcharinus leucas) in the Shark River Slough.
- <u>Elizabeth Stoner</u>, PhD FIU Biology, Summer 2014. Major professor: C. Layman. Distribution & role of Cassiopea spp. jellyfish in reference to nutrient inputs in coastal habitats.
- <u>Lauren Yaeger</u>, PhD FIU Biology Spring 2013. Major professor: C. Layman. Effects of seascape surrounding mangroves on the habitat value of mangrove regions for commercially & ecologically important reef fishes.
- Amanda Bourque, PhD FIU Biology 2012. Major professor: J. Fourqurean. An
 examination of ecological processes in ecosystems relevant to improving the success of
 restoration practices in seagrass ecosystems.

- <u>Elizabeth Lacey</u>, PhD FIU Biology 2012. Major professor: J. Fourqurean. The role of resilience in the management of a Mexican tropical coral reef ecosystem: effects of *Diadema antillarum* on algae & coral benthic coverage.
- Meenakshi Jerath. MS FIU Environmental Studies 2012. Major professor: M. Bhat. Carbon sequestration services provided by mangrove forests in Everglades National Park.
- Shannon Bayse, MS Thesis, NSU 2009. Major professor: D. Kerstetter. Comparison of catches & catch rates in pelagic longlines in the Mid-Atlantic to determine their bycatch reduction potential.

Undergraduate students supervised for independent study

- Peter Lu, Environmental Studies, FIU, Spring 2017. Prey dynamics in Everglades coastal habitats.
- Nicole Blum, Environmental Studies, FIU, Spring 2017. Angler visitation patterns in Joe Bay.
- Natasha Viadero, Environmental Studies, FIU. Movement ecology of snook in response to hydroclimatic variability. Spring 2016.
- Magali Guichardot, Environmental Studies, FIU. Movement ecology of snook in response to hydroclimatic variability. Spring 2016.
- Lyanne Mendez, Environmental Studies, FIU. Metanalysis of anti-predator behavior: response to ecologically novel vs. evolutionary novel predators. Summer 2014.
- Christine Beck, Environmental Studies, FIU. Effects of avian and piscine predation on habitat selection and movement of native Everglades fishes. Spring 2013.
- Jessica Chianesse, Environmental Studies, FIU. Prevalence of a parasitic isopod, *Probopyrus spp*, palaeomonid shrimp along a marsh-estuarine gradient in the southern Everglades. Spring 2011. Poster presented at ESA 2011 Austin, TX.
- Melissa Anderson, Environmental Studies, FIU. Salinity preferences of non-native cichlids in the Everglades. Fall 2010 & Spring 2011. Poster presented at FCE-LTER ASM 2011.
- Andrew Jungman, Environmental Studies, FIU. Fall 2009 & Spring 2010. Trait variation among populations of the African jewelfish in the Everglades. Poster presented at GEER 2010, & FCE-LTER ASM 2011, coauthor in Lopez et al. 2012. Obtained MS in EVR Agroecology Program at FIU, 2012.
- Claudia Castillo, Environmental Studies, FIU. Spring 2010. Incorporating behavior into the study of invasive species. Currently Nature Interpretator for the National Park Service, New Mexico.
- Andrew Whitaker, Environmental Studies, NSU, Summer & Fall 2008. Intraguild predation among Everglades non-native cichlids.
- Claudia McLeroy, Environmental Studies, NSU, Spring 2008. Assessment of the abundance of *Lygodium microphyllum* spores in tree islands in the Loxahatchee National Wildlife Refuge (jointly with L. Brandt, Ft Lauderdale Research & Education Center, UF).
- Elizabeth Bragger, Environmental Studies NSU, Summer 2008. Pre-restoration assessment of the fishes of Rachel's Creek, Crane Point Hammock, Marathon, FL.

REU students

- Steven Nanez, Georgia Gwinneth College, REU funded project through FCE LTER.
 Trophic Ecology of coastal Everglades lakes. Summer & Fall 2016.
- Kenneth Adair, Florida Atlantic University. Spawning behaviour of Common Snook in coastal Everglades. REU-funded project through FCE LTER. Summer 2015.

- Virginia Fourgurean, Florida State University. Comparison of top and mesopredator responses to hydrological variation. REU-funded project through FCE LTER. Summer 2015.
- Mari Soula, Biology, FIU, REU-funded project through FCE LTER. Prey quality along the Shark River Estuary: Junk or health food. Summer 2012, poster presented at LTER ASM, Estes Park, CO, 2012 & American Fisheries Society, Florida Chapter, 2013 meeting. Coauthor on paper published in CJFAS

Summer High School & Visiting Interns Students

Summer 2016

Jenna Allen, Mast Homestead Academy, Homestead, FL

Summer 2015/Fall 2015

Richard Guerrero, Mast Homestead Academy, Miami, FL

Alex Zamora, Varela Senior High School, Miami, FL

Summer 2014/Fall 2014

Felipe Tamayo, Varela Senior High School, Miami, FL

Sofia Alvarez, Wesleyan College

Summer 2013:

Alessandros Anckle, Terra High School, Miami, FL

Carolyn Lowe, Terra High School, Miami, FL

Christopher Naranjo, Varela Senior High School, Miami, FL

Felipe Tamayo, Varela Senior High School, Miami, FL, funded by RESSt (National Science Foundation's Research Experience for Secondary Students)

o Summer 2012:

Roger Salgado Terra SH, Miami, FL,

Varela SH, Miami, FL: Steven Santos, Heather Sanchez, Pablo Almagro

All students funded by RESSt (National Science Foundation's Research Experience for Secondary Students) through Florida Coastal Everglades LTER program

o Summer 2011:

Tori Burnstein, Terra SH, Miami, FL:

TEACHING

Undergraduate Teaching at Earth & Environment, FIU

- EVR3011, Environmental Resources & Pollution: Non-majors course, focusing on dynamics of pollution & environmental toxicology with emphasis on energy consumption & production, climate change & natural resource degradation.
- EVR4026, Biotic Resources: Majors course that examines people-resources using an ecosystem function-services-human well-being framework.
- EVR3013, Ecology of South Florida: Course for nonscience majors, offering an introduction to the ecology of South Florida & emphasizes natural resource conservation and management.

Undergraduate Teaching Farquhar College of Arts & Sciences, NSU

BIO1040: Environmental Studies: Non-majors course that provides an overview of environmental science that integrates social, economic, technical, & political issues.

- <u>ENVS3100: Environmental Issues:</u> Majors course that examines issues in environmental science as multifaceted & complex & uses a dialectical approach to examining environmental problems.
- <u>ENVS3170</u>: <u>Everglades Ecology & Conservation</u>: <u>Elective course for Environmental Studies</u>, Marine Biology & Biology majors examining key biological & physical features of South Florida, the ecological processes that make it unique, and challenges to its management & restoration.

Graduate Teaching at Earth & Environment, FIU

- <u>ISC5150</u>, <u>Introduction to Graduate Research</u>: Introductory course for new graduate students with an emphasis on writing. Course cotaught with Dr. M. Ross
- <u>EVR6377</u>, <u>Environmental Policy and Resource Management:</u> course uses coupled socioecological coupling as a framework to teach graduate students about complexity of environmental problems. Course cotaught with Dr. P. Mozumder
- <u>Ecology & Management of Invasive Species</u> (jointly with Dr. Hong Liu): Cross-listed undergraduate/graduate course that provide students with an overview of the key ecological, social, & management questions surrounding introduced invasive species.
- Marine Protected Areas (course co-organized with Dr. L. Collado, FIU Biology): Intensive, hands-on field course on the ecological & socioeconomic challenges of designing & managing marine protected areas. with guest lectures by scientists, managers & practitioners & field trips. Taught in conjunction with UNAM, Puerto Morelos, Mexico.
- <u>ISC5150,Introduction to Graduate Research (co-taught with M. Ross, FIU):</u> An introductory course to graduate studies with a strong focus on developing writing skills.

Graduate Teaching at the Oceanographic Center, NSU

- Wetland Ecology (Spring 2008): An overview of the ecology of wetland ecosystems, covering anthropogenic impacts on wetland habitats & the management of wetland ecosystems, with a particular emphasis on our own 'backyard' wetland, the Greater Everglades Ecosystem.
- <u>Ecology & Evolution of Invasive Species (Winter 2007)</u>: Course provides students with an overview of the key ecological, evolutionary, genetic, & behavioral questions surrounding the study of invasive species. Emphasis is place examining how species invade, interact & impact recipient communities.

PRESENTED PAPERS & LECTURES

<u>Underlined names</u> are current/former graduate students, † are postdocs, * are undergraduate students, ‡ are high school students, & †† are full-time research technicians

Symposia Co-Organizer

- **Rehage**, Santos†, Stevens, Flaherty-Walia, <u>Boucek</u> & Stormer†, Organized symposium: Implications of freshwater inflows on the spatial ecology of coastal fisheries: identifying mechanisms behind processes. American Fisheries Society annual meeting, Tampa, FL, August 2017.
- <u>Blanchard</u>, Tuckett, Hill, **Rehage**. What Can We Expect from Non-natives and Climate Change? Organized symposium: Implications of freshwater inflows on the spatial ecology

- of coastal fisheries: identifying mechanisms behind processes. American Fisheries Society annual meeting, Tampa, FL, August 2017.
- Boucek, Rehage et al. organized special session at ESA on extreme events and highlighting the extreme cold event special issue in Ecosphere, Ecological Society of America, Fort Lauderdale, FL, August 2017
- <u>Boucek</u> & LTER students at other sites organized a special session on functional traits,
 Ecological Society of America, Ft Lauderdale, FL, August 2017.
- Symposium co-organizer (along with L. Deegan, Woods Hole Marine Lab and PhD student <u>Boucek</u>): Effects of disturbance on trophic subsidies. Ecological Society of America annual meeting, Baltimore, MD, August 2015.
- Symposium co-organizer (along with L. Deegan, Woods Hole Marine Lab and PhD student <u>Boucek</u>): Recent developments in skip spawning. American Fisheries Society annual meeting, Portland, Oregon, August 2015.
- Symposium co-organizer (along with L. Deegan & J. Nelson, Woods Hole Marine Lab and PhD student <u>Boucek</u>): Trophic subsidies in coastal ecosystems: implications for coastal management. Coastal and Estuarine Research Federation annual meeting, San Diego, CA, November 2013.
- Symposium co-organizer (along with R. Taylor, Florida Fish & Wildlife Conservation Commission) on the Ecology & Conserviation of Snook: What have we learned in the past 20 yrs? American Fisheries Society, Southern Division, Tampa, FL, January 2011.
- Symposium co-organizer (along with K. Petren, University of Cincinnati) on Behavior & Biological Invasions, Ecology Society Annual Meeting, San Jose, CA, August 2007.

Presentation at Scientific Conferences (Past 5 years)

- Rehage & Santos. Presentation at Movement Ecology Gordon Conference, March 2017.
- Rehage, Eggenberger, & Gervasi presentations at Florida Coastal Everglades Long-Term Ecological Research All Scientists Annual Meeting, Miami, FL, May 2017.
- Rehage, Boucek, Santos†, Stormer†, Eggenberger, Gervasi & Blanchard presentations at GER (Greater Everglades Ecosystem Restoration) meeting, Coral Springs, April 2017.
- **Rehage,** <u>Boucek</u> & <u>Blanchard</u>. Presentations at Ecological Society of America, Fort Lauderdale, FL, August 2016.
- Rehage, Boucek, Beck, Hill, Kroloff, & Santos† presentations at Florida Chapter of the American Fisheries Society, Haines City, FL, March 2016.
- Rehage, <u>Boucek</u>, Brown, Sukop & Bhat. National Science Foundation Water Sustainability and Climate Change Program annual meeting, Washington DC, March 2016.
- Rehage. Presentation at Gordon Predator-prey conference, Ventura, CA, January 2016.
- Rehage, <u>Boucek</u> & <u>Lee</u>. Presentations at American Fisheries Society, Portland, OR, August 2015.
- Rehage & Boucek. Presentation at ITAG meeting, St Petersburg, Florida, April 2016.
- Rehage, <u>Boucek</u>, & <u>Lee</u>. Presentations at GEER (Greater Everglades Ecosystem Restoration) meeting, Coral Springs, April 2015.
- Rehage & Boucek. Presentation at ITAG meeting, St Petersburg, Florida, April 2015.
- Rehage, <u>Boucek</u>, <u>Gandy</u>, & <u>Lee</u>, presentations at Florida Chapter of the American Fisheries Society, Ocala, FL, February 2015.
- Rehage, & <u>Boucek</u>, presentations at 2nd Mangroves as Fish Habitat Meeting, Mazatlan, Mexico, April 2014.

- Rehage, Boucek, Gandy, Lee, Hill, Barth, & Blanchard, presentations at Ecological Society of America meeting, Sacramento, CA, August 2014.
- Rehage, Boucek, Gandy, Blanchard, & Lee presentations at Florida Coastal Everglades Long-Term Ecological Research All Scientists Annual Meeting, Miami, FL, March 2014.
- Lee, Boucek. & Rehage. Presentations at American Fisheries Society, Florida Chapter, Ocala, FL, February 2014.
- <u>Boucek</u> & **Rehage.** Presentations at Coastal and Estuarine Research Federation biennial conference, San Diego, CA, November 2013.
- Rehage, <u>Lee, & Boucek</u>, presentations at Florida Coastal Everglades Long-Term Ecological Research All Scientists Annual Meeting, Miami, FL, March 2013.
- <u>Boucek</u>, <u>Lee</u> & **Rehage**. Presentations at Florida Coastal Everglades Long-Term Ecological Research All Scientists Annual Meeting, Miami, FL, March 2013.
- <u>Trujillo</u>, Soula*, Santos*, <u>Boucek</u>, <u>Lee</u> & **Rehage**. Presentations at American Fisheries Society, Florida Chapter, Ocala, FL, February 2013.
- Soula*, Santos‡, <u>Boucek</u>, <u>Gandy</u> & **Rehage**. Presentations at Long Term Ecological Research All Scientists Meeting, Estes Park, CO, September 2012.
- <u>Edwards, Boucek, Gandy, Trujillo</u>, & **Rehage**. Presentations at International Wetlands Society/Greater Everglades Ecosystem Restoration meeting, June 2012, Orlando, FL.
- <u>Boucek</u>, &_Rehage. Presentations at Ecology Society of America, Portland, OR, August 2012.

Invited Seminars (Past 5 years)

- **Rehage, J.S**. et al. What is driving bonefish decline is South Florida?, Ocean Life Seminar Series, Key Largo, Florida, March 2017
- Rehage, J.S. What have we learned about the bonefish decline in Florida Bay. Presentation to the Bonefish and Tarpon Trust Board of Directors, April 2016.
- **Rehage, J.S.** Belmont University. Fish dynamics in the coastal Everglades: dry downs, cold snaps and linking upstream water management to recreational angling, March 2015.
- Rehage, J.S. South Florida Natural Resources Center, Everglades National Park. Fish
 assemblage structure along an ecosystem novelty gradient: native and nonnative fishes in a
 human-modified freshwater environment, June 2014.
- Rehage, J.S. School of Forest Resources and Conservation Fisheries and Aquatic Sciences, University of Florida: Long Term fish dynamics at the Everglades marsh-mangrove ecotone: drydowns, subsidies, coldsnaps & the links to recreational fisheries, November 2012.
- Rehage, J.S. Florida Fish and Wildlife Commission, Non-Native Fish Laboratory, Non-Native Fishes Workshop, Understanding nonnative fish dynamics in the Everglades. Boca Raton, FL, April 2012.
- Rehage, J.S. Biological Sciences, FIU. Effects of hydrological heterogeneity on fish dynamics at the Everglades marsh-mangrove ecotone: implications for ecosystem function & services, March 2011.
- Rehage, J.S. Invited speaker at Panel Discussion on Nonnative Fishes, American Fisheries Society, Southern Division annual conference. Understanding nonnative fish impact in the Everglades: what do we know & where do we need to go? Tampa, FL, January 2011.

PROFESSIONAL HONORS & OFFICES

Awarded Communications award by College of Arts & Sciences, FIU, 2017.

President, Florida Chapter of the American Fisheries Society, 2014-2015.

Nominated for Mentoring Award, College of Arts and Sciences, FIU, 2013, 2016.

Featured at the 2011 Ecological Society of America (ESA) Focus on Ecologists series & CAREERS section of ESA website: http://www.esa.org/ecologist. The Focus on Ecologists project (http://www.esa.org/education_diversity/explore.php) provides an opportunity for students interested in ecological careers, the ESA community at large, and the general public to learn more about the science of ecology through the experiences of ecologists.

Summer Research Award, College of Arts & Sciences, FIU, 2009.

Doctoral Dissertation Improvement Grant, National Science Foundation, 2002-2003.

Lyman T. Johnson Minority Fellowship, University of Kentucky Graduate School, 2002-2003. National Science Foundation Graduate Research Fellowship, 1999-2002.

Doctoral Dissertation Qualifying Exam passed with distinction, Fall 2001.

National Science Foundation Graduate Research Training Fellowship (IGERT Fellow), University of Kentucky, 1998-1999.

Magna Cum Laude, Environmental Studies, Florida International University, 1995.

PROFESSIONAL ACTIVITIES & SERVICE

Journal Reviewer for:

- 1. African Journal of Aquatic Sciences
- 2. American Midland Naturalist
- 3. Animal Behavior
- 4. Animal Conservation
- 5. Aquatic Conservation: Marine & Freshwater Ecosystems
- 6. Aquatic Ecology
- 7. Aquatic Invasions
- 8. Archiv Für Hydrobiologie
- 9. BMC Ecology
- 10. Behavioral Ecology
- 11. Biological Invasions
- 12. Bulletin of Marine Science
- 13. Copeia
- 14. Current Zoology
- 15. Evolutionary Ecology
- 16. Ecological Indicators
- 17. Ecology

- 18. Ecology Letters
- 19. Ecology of Freshwater Fish
- 20. Ecosphere
- 21. Estuaries & Coasts
- 22. Ethology
- 23. Evolution
- 24. Evolutionary Ecology
- 25. Florida Scientist
- 26. Functional Ecology
- 27. Hydrobiologia
- 28. Journal of Applied Ecology
- 29. Journal of Fish Biology
- 30. Marine Ecology Progress Series
- 31. Methods in Ecology & Evolution
- 32. NeoBiota
- 33. Oecologia
- 34. Oikos
- 35. Proceedings of Royal Society of London, Biology
- 36. Restoration Ecology
- 37. Reviews in Fish Biology & Fisheries
- 38. Southeastern Naturalist
- 39. Transactions of America Fisheries Society
- 40. Reviews in Fish and Fisheries
- 41. Gulf of Mexico Science
- 42. Frontiers in Ecology & Evoluton
- 43. North American Journal of Fisheries Management

Member of Editorial Boards:

- Guest co-editor Special Issue Ecosphere along with PhD student R. Boucek on extreme cold events. 2015
- L&O Letters, 2016-present
- Aquatic Invasions/BioInvasion Records, 2016-present

Member of NGO Boards:

- Snook and Gamefish Foundation, 2016-present
- Captains for Clean Water, 2016-present

Grant Proposal Reviewer:

- National Science Foundation, Directorate of Environmental Biology
- Florida Fish & Wildlife Conservation Commission Wildlife Legacy Grants
- Research Council of Norway
- NOAA 2013 Saltonstall-Kennedy Grant Program
- Ohio State University, Ohio Agricutural Research & Development Center (OARDC)

Reviewer Panel:

- NSF Panel: Population & Community Ecology, DEB, 2010.
- NSF Panel: Population & Community Ecology, DEB, 2013.

Expert Technical Review:

- Review of sections of the 2009 and 2012 System Status Report (SSR) for the USACOE. The SSR reports progress on Everglades restoration to federal agencies, including Congress.
- Identifying Key Uncertainties in Everglades restoration for the SFMWD, 2011.
- Scientific evaluation of Central Everglades Planning Project (CEPP) restoration alternatives for Comprehensive Everglades Restoration Plan (CERP), January 2013. http://www.evergladesplan.org/pm/projects/proj_51_cepp.aspx
- Greater Everglades and System-Wide Indicators for US Army Corps of Engineers, Comprehensive Everglades Restoration Plan, 2010.

Workshop Organizing Committee

Linking freshwater management of ecosystem services in the Everglades, March 2011.
 Funded by National Science Foundation Water Sustainability and Climate Category 1 grant to Sukop et al. (J.S. Rehage is co-Pl).

Other Service Activities to Scientific & Broader Community:

- Speaker at Ocean Life 2017 What is driving bonefish decline in South Florida? Key Largo, FL, March 2017.
- Speaker at Florida Keys Fishing Guide Association, February, 2016.
- Speaker at Florida Keys Fishing Guide Association, September, 2015.
- Speaker at Eat, Drink & Be Merry Seminar Series , 'Evolutionary Traps' Luna Star Cafe ,
 North Miami, FL, April 2014. The Eat, Think & Be Merry series gives students and the
 community the opportunity to discuss current scientific issues with FIU researchers in a
 conversational setting.
 - http://seas.fiu.edu/community-events/eat-think-and-be-merry/
- Speaker at Ocean Life 2012-2013 seminar series, Dangerous dry down refuges for marsh fishes: a feast for snook FIU & Friends of Key Largo Cultural Center, Key Largo, FL, March 2013.
- Ecological Society of America Mentor for Aquatic Ecology Section, 2012 annual meeting, Portland, OR.
- Speaker at 2012, 2013, 2014 Summer High School Research Internship Program, 'Why do science?' FIU, Miami, FL.
- Participant in Meet the Scientists Day at Terra High School, Miami, FL, Mar 2012.
- SEEDS Program Mentor (<u>www.esa.org/seeds</u>). SEEDS aims to increase the participation of underrepresented groups in Ecology. Ecology Society of America, 2007-Present.
- Participant on Science panel for SEEDS (<u>www.esa.org/seeds</u>) students visiting FCE LTER and FIU, Summer 2011.
- Graduate student poster judge, FCE LTER All scientists meetings, 2008-2013, Miami, FL.
- Graduate student poster judge CERF 2011 & 2013 annual meetings, Daytona Beach, FL, & San Diego, CA.
- Guest lecturer at Miami Beach Senior High, Miami, April 2009, April 2010.

Service to Department at FIU

- Member of new PhD major in Natural Resource Science and Management Curriculum Committee, FIU E&E Dept., 2013.
- Member of Sustainability BA degree committee, FIU, 2011-2012.

- Member of Graduate committee, FIU E&E Dept., 2011-present.
- Organizer of SERC Brown Bag Seminar Series, FIU, 2009-2010.
- Member of Undergraduate committee, FIU E&E Dept., 2009-2010.
- Member of Curriculum committee, FIU E&E Dept., 2008-2009.
- Member of Preserve committee, FIU E&E Dept., 2008-2009.

Service to Department at NSU

- Member of Internal review committee for Marine Environmental Sciences Master's degree, NSU OC, Fall 2007.
- Chair of Search committee for coastal environmental science position, NSU OC, 2008.
- Member of Search committee for environmental scientist position, NSU FCAS, 2008.
- Member of Research space committee, NSU OC, 2006.

Service to School/College

- Member of Environmental policy search committee, School of International & Public Affairs FIU, 2012-2013.
- Member of Urban ecologist search committee, Biological Sciences, FIU, 2011.
- Member of interdepartmental committee on new PhD degree in Environmental Science, Policy & Management, School of the Environment & Society, FIU, 2010.

Service to University

- Panelist at FIU McNair Scholars Research Conference, Oct 2014
- Panelist at Tips to Tenure, Faculty Mentor Program, Mentor.fiu.edu, Nov, 2014
- DASEC Committee, Spring 2017-present.

Professional Affiliations

- Collaborator, Florida Coastal Everglades LTER
- Ecological Society of America
- American Association for the Advancement of Science
- Coastal and Estuarine Research Federation
- American Fisheries Society
- **Animal Behavior Society**