

## Curriculum Vitae

### James G. Douglass, PhD

Associate Professor – Seagrass Science

Email: jdouglass@fgcu.edu

Phone: 239-590-1268 (office)

Phone: 804-695-4068 (cell)

Florida Gulf Coast University

Dept. of Marine and Ecological Sciences

Whittaker Hall #207

10501 FGCU Blvd. S

Fort Myers, FL 33965

### Education:

2008- PhD Marine Science, College of William and Mary

2002- BS Biology, Rice University

### Appointments:

2018 – Present Associate Professor – Seagrass Science, Florida Gulf Coast University, FL

2012 – 2018 Assistant Professor – Seagrass Science, Florida Gulf Coast University, FL

2010 – 2012 Postdoctoral Research Associate, Northeastern University, MA

2008 – 2010 Postdoctoral Fellow, Smithsonian Marine Station at Fort Pierce, FL

## TEACHING

### Teaching Experience at FGCU:

OCE 1001C, Marine Systems- Spring 2013-2015, 2017, Fall 2013, 2014, 2016

General education level oceanography course targeting non-science majors

ISC 3120, Scientific Process- Spring 2013, 2014, 2018, Fall 2015, 2017, 2018

Introduction to the scientific practice; required for natural sciences majors

PCB 3436C, Marine Ecosystems Monitoring and Research Methods- Spring 2018

Hands-on course in field methods for coastal marine science

OCB 4633C Marine Ecology- Fall 2012-2018, Spring 2015-2019

Upper level lecture/lab course required for Marine Science majors

OCB 4936, Senior Seminar Marine Science- Fall 2016, Spring 2019

Capstone course synthesizing student experiences from senior research or internships

BSC 4930, Field Studies in Marine Biology- Summer 2013-2018

5-week field course on biodiversity, geochemistry, and human impacts on Florida waters

ISC 4930, CT: Seagrass Ecology- Fall 2012, Spring 2016

Undergraduate level discussion course reviewing current scientific literature on seagrasses

EVR 4930, ST: Conservation Marine Biology- Spring 2016

Elective course addressing environmental conservation from a marine biology perspective

EVR 6907, Independent Study- Spring 2016, 2017

Small enrollment courses on specialized topics for MS Environmental Science students

EVS 6920, Graduate Seminar: Seagrass Ecology- Fall 2012

Graduate-level discussion course reviewing current scientific literature on seagrasses

### Graduate Students Mentored (as primary thesis advisor):

Shannan C. McAskill, Interactive effects of environmental stressors and the invasive apple snail,

*Pomacea maculata*, on tapegrass, *Vallisneria americana*. Defended Summer 2015

Thomas J. Behlmer Jr., Indirect effects of freshwater discharges on seagrass beds in Southwest Florida: mesograzers as mediators of epiphyte growth? Defended Summer 2016  
Lisa Rickards, Seagrass abundance and distribution in relation to changing environmental factors in Estero Bay, Florida. Defended July 2018  
Sarah Harrington, Characterizing the causes and consequences of epiphyte accumulation in a Southwest Florida estuary. Defense TBA  
Liza Rollins, Ecosystem services of *Vallisneria americana* in the upper Caloosahatchee Estuary, Florida. Defense TBA  
Amanda Sang, Interactive effects of grazer exclusion and nutrient enrichment on seagrass health in Pine Island Sound, Florida. Defense TBA

**Graduate Students Mentored (as thesis committee member):**

Dana Dettmar, In-lake floating treatment wetlands could provide algae control through unsuspected mechanisms. Defended Summer 2015  
Ashley Brandt, Benthic community structure and responses to regional and local drivers within the Florida Keys. Defended Spring 2016  
Kory Ross, Factors affecting the restoration of *Vallisneria americana* in the Caloosahatchee River. Defended Summer 2016  
Allison Bury, The impacts of crude oil on naïve (Florida) and chronically exposed (Louisiana) populations of *Ruppia maritima*. Defended Spring 2017  
Steven Wilke, A comparison of fish community structure over time 1970-2013 in a Southwest Florida estuarine system. Defended Spring 2018  
Nicole Stivers, Mercury exposure pathways and risks for neonatal and juvenile blacktip sharks (*Carcharhinus limbatus*) of southwest Florida. Defended Summer 2018  
Samantha Blonder, The lingering effect of crude oil on the community composition of epiphytes. Defended Summer 2018

**Undergraduate Students Mentored through Research or Internship:**

Jonathan Voss 2012- Honors contract to help develop lab curriculum for Marine Ecology  
Sylvie Mariolan 2012-2014, Presented research results at 2013 Benthic Ecology Meeting  
Heather Butler 2012-2013, Supervised internship project  
Danielle Cairns 2012-2013, Presented research results at 2013 Benthic Ecology Meeting  
Whitney McDowell 2012-2013, Presented research results at 2013 Benthic Ecology Meeting  
Amber Chaboudy 2012-2014, Presented results at 2014 FGCU research day  
Spencer Talmage 2012-2014, Presented results at 2014 Benthic Ecology Meeting  
Ian Rogan 2012-2014, Presented results at 2014 FGCU research day  
Kerri Foote 2013-2014, Supervised internship project  
Stephanie D'Orazio 2014-2015, Supervised internship project  
Melissa Ankenbauer 2014-2015, Supervised internship project  
Lexi Siegel 2014-2016, Supervised internship project  
Roberto Pozzi 2015, Research exchange student from Brazil  
William Mastandrea 2015-2016, Supervised internship project  
Alexandra Rodriguez 2015-2016, Presented results at 2016 FGCU research day  
Mireille Gruppo 2015-2016, Supervised internship project  
Julian von Kanel 2015-2016, Supervised internship project  
Onyeweenu Ogene 2015-2016, Presented research results at 2017 ASLO Meeting in Hawaii

Melissa Jaszczak 2015-2016, Supervised internship project  
Sara Hilderbrandt 2015-2016, Supervised internship project  
Manuel Coffill 2015-2017, Supervised internship project  
Stephanie Crooks 2015-2016, Supervised internship project  
Robert Houfek 2015-2016, Supervised internship project  
Sarah McNatt 2015-2016, Supervised internship project  
Jenna Martin 2015-2016, Supervised internship project  
Connor Nichole 2015-2016, Supervised internship project  
Megan Burin 2016, Research exchange student from U. Notre Dame  
Pedro Ramirez 2017, Supervised Biology senior research project  
Eugenio DeSanctis 2017, Supervised Biotechnology senior research project  
Brandon Jacobelli 2017, Supervised senior research project  
Cameron Garcia 2017, Supervised internship project  
Carmen Gonzalez 2017-, Supervised internship project  
Tatiana Mrazik 2017-, Supervised internship project  
Abigail Krueger 2018- Supervising internship project  
Ryan Reynold 2018- Supervised senior research project  
Lauren Alvaro 2018- Supervised internship project  
Alexandrea Walters 2018- Supervised senior research project  
Sydney Wilson 2018- Supervised internship project  
Victoria Melendez 2018- Supervised internship project  
Miralny Marante 2018- Supervised internship project  
Samantha Steffen 2018-2019- Supervised internship project  
Emily Robinson 2018-2019- Supervised internship project  
Jeffrey Walker 2019- Supervising senior research project  
Kelly Chase 2019- Supervising senior research project

## RESEARCH

### Publications and Technical Reports:

- JG Douglass, R Paperno, EA Reyier, AH Hines (2018) Fish and seagrass communities vary across a marine reserve boundary, but seasonal variation in small fish abundance overshadows top-down effects of large consumer exclosures. *Journal of Experimental Marine Biology and Ecology* 507: 39-52. <https://doi.org/10.1016/j.jembe.2018.07.003>
- SC McAskill, JG Douglass (2017) Salinity and temperature alter *Pomacea maculata* herbivory rates on *Vallisneria americana*. *Journal of Molluscan Studies* doi:10.1093/mollus/eyx034
- JL Ruesink, JJ Stachowicz, PL Reynolds, C Boström, M Cusson, J Douglass, J Eklöf, AH Engelen, M Hori, K Hovel, K Iken, PO Moksnes, M Nakaoka, MI O'Connor, JL Olsen, EE Sotka, MA Whalen, JE Duffy (2017) Form-function relationships in a marine foundation species depend on scale: a shoot to global perspective from a distributed ecological experiment. *Oikos* doi:10.1111/oik.04270
- MES Bracken, JG Douglass, V Perini, GJ Trussell (2017) Spatial scale mediates the effects of biodiversity on marine primary producers. *Ecology* 98:1434-1443
- JE Duffy, PL Reynolds, C Boström, JA Coyer, M Cusson, S Donadi, JG Douglass, JS Eklöf, AH Engelen, BK Eriksson, S Fredriksen, L Gamfeldt, C Gustafsson, G Hoarau, M Hori, K

- Hovel, K Iken, JS Lefcheck, P-O Moksnes, M Nakaoka, MI O'Connor, JL Olsen, JP Richardson, JL Ruesink, EE Sotka, J Thormar, MA Whalen, JJ Stachowicz (2015) Biodiversity mediates top-down control in eelgrass ecosystems: a global comparative-experimental approach. *Ecology Letters* 18:696-705
- CW Gunnels IV, D Buzasi, MK Cassani, J Douglass, T El-Hefnway, EM Everham III, A Hartley, J Herman, M Mujtaba, J Muller, A Nicolas, L Southard, S Thomas, NE Demers (2015) Engaging students in ethical considerations of the scientific process through a simulated funding panel. *CUR Quarterly* 36:12-18
- JG Douglass (2014) South Florida Water Management District, 2014 Systems Status Report: CERP Northern Estuaries Region, Caloosahatchee Estuary Submerged Aquatic Vegetation 1998-2013
- JG Douglass, EA Canuel, JE Duffy (2011) Food web structure in a Chesapeake Bay eelgrass bed as determined through gut contents and  $^{13}\text{C}$  and  $^{15}\text{N}$  isotope analysis. *Estuaries and Coasts* 34: 701-711.
- JG Douglass, KE France, JP Richardson, JE Duffy (2010) Seasonal and interannual change in a Chesapeake Bay eelgrass community: insights into biotic and abiotic control of community structure. *Limnology and Oceanography* 55: 1499-1520.
- AC Spivak, EA Canuel, JE Duffy, JG Douglass, JP Richardson (2009) Epifaunal community composition and nutrient addition alter sediment organic matter composition in a natural eelgrass *Zostera marina* bed: a field experiment. *Marine Ecology Progress Series* 376: 55-67.
- JG Douglass, JE Duffy, JF Bruno (2008) Herbivore and predator diversity interactively affect ecosystem properties in a marine community. *Ecology Letters* 11: 598-608
- JG Douglass, JE Duffy, AC Spivak, JP Richardson (2007) Nutrient versus consumer control of community structure in a Chesapeake Bay eelgrass habitat. *Marine Ecology Progress Series* 348: 71-83.

**Manuscripts submitted, reviewed, and under revision for resubmission:**

- SC McAskill, JG Douglass. Invasive apple snails and salinity stress: can two wrongs makes a right for the freshwater macrophyte *Vallisneria americana*? - *Aquatic Ecology*
- JG Douglass, RH Chamberlain, Y Wan, PH Doering. Submerged vegetation responses to climate variation and altered hydrology in a subtropical estuary: interpreting 33 years of change. - *Estuaries and Coasts*

**Recent Grants and Awards:**

- FGCU Scholarship-research Venture Fund Committee. Seagrass Health and Restoration: Sediment Dynamics. \$16,780. *With David Fugate.*
- South Florida Water Management District. Ecological and Environmental Scientific and Technology Support Services: University Support. *With several colleagues from the FGCU Marine and Ecological Sciences Department. Status granted but no monies received yet.*
- City of Naples, FL. Naples Bay Oyster Reef Restoration Ecological Monitoring, 2018-2021. \$50,000. *With Serge Thomas.*
- Snook and Gamefish Foundation, subcontract through Johnson Engineering Incorporated: *Vallisneria americana* restoration research assistance, 2018 \$5000
- National Science Foundation, Collaborative Research: The tropicalization of Western Atlantic seagrass beds, 2018-2020 \$57,496

South Florida Water Management District, Resolving Uncertainties in Restoration of Seagrasses in the Caloosahatchee Estuary: Epiphytes, 2015-2016 \$25,000  
Lee County, FL Gulf Coast University Ecological Baseline Survey of North Spreader Canal, Cape Coral, 2014-2015 \$34,452  
South Florida Water Management District, Caloosahatchee River Estuary Patch-Scale Submersed Aquatic Vegetation Monitoring 2013-2014, \$47,600  
South Florida Water Management District, Aerial Imagery Acquisition, West Coast Boca Grande to Wiggins Pass, 2014, \$41,300  
Florida Department of Environmental Protection, Aerial Imagery Acquisition, Rookery Bay National Estuarine Research Reserve, 2014, \$25,875,  
South Florida Water Management District, Caloosahatchee River Estuary Patch Scale Submersed Aquatic Vegetation Monitoring and Evaluation 2012-2013, \$43,200

**Invited Lectures for Scientific and Academic Audiences:**

January 2016: “Caloosahatchee submerged aquatic vegetation summary and epiphyte project.” RECOVER Science Meeting, South Florida Water Management District, West Palm Beach, FL  
October 2015: “Salvaging ecosystem knowledge from decades of degradation Can we save SAV in the Caloosahatchee Estuary?” Florida Atlantic University, Harbor Branch Oceanographic Institution, Vero Beach, FL  
January 2014: “SAV in the Caloosahatchee Estuary: Effects of freshwater flow.” Bailey-Matthews Shell Museum, Sanibel, FL  
November 2013: “SAV in the Caloosahatchee Estuary: Effects of freshwater flow.” Caloosahatchee Science Workshop, Florida Gulf Coast University, Fort Myers, FL  
November 2013: “SAV in the Caloosahatchee Estuary: Effects of freshwater flow.” Florida Institute of Technology, Biology Department, Melbourne, FL

**Recent Presentations at Professional Meetings; (UG) and (G) indicate undergraduate and graduate student co-authors, respectively:**

JG Douglass, (G) AC Sang (2018) Direct and indirect effects of disturbance on SW Florida Seagrasses. 47th Annual Benthic Ecology Meeting, Corpus Christi, TX.  
(G) LM Rickards, JG Douglass (2018) Assessing seagrass responses to reduced optical water quality and other changes in Estero Bay, FL. 47th Annual Benthic Ecology Meeting, Corpus Christi, TX.  
(G) LM Rickards, JG Douglass (2017) Mapping of bay-wide seagrass and related water quality parameters in Estero Bay. *Poster presentation at Lee County GIS Symposium*  
JG Douglass and (G) S McAskill (2016) Interactive effects of environmental stressors and invasive apple snails on submerged vegetation in fresh and brackish water. *Oral presentation at Florida United Malacologists meeting, Sanibel, FL*  
(G) T Behlmer and JG Douglass (2016) Indirect effects of freshwater discharges on seagrass beds in SW Florida: Mesograzers as mediators of epiphyte growth? *Oral presentation at 45th Annual Benthic Ecology Meeting, Portland, ME* (Thomas’ presentation title was the same his 2015 title, but he included much more data and gave the presentation orally instead of as a poster)

- (G) T Behlmer and JG Douglass (2015) Indirect effects of freshwater discharges on seagrass beds in SW Florida: Mesograzers as mediators of epiphyte growth? *Poster presentation at 44th Annual Benthic Ecology Meeting, Quebec City, Quebec, Canada*
- (G) S McAskill and JG Douglass (2015) Effects of multiple stressors on interactions between an invasive herbivore and native SAV in Southwest Florida estuaries. *Oral presentation at 44th Annual Benthic Ecology Meeting, Quebec City, Quebec, Canada*
- JG Douglass (2015) Synergistic effects of hydrologic changes and biological feedback processes on SAV in the Caloosahatchee Estuary. *Oral presentation at 44th Annual Benthic Ecology Meeting, Quebec City, Quebec, Canada*
- JG Douglass (2014) The rainbow of death: Caloosahatchee SAV trends since 1998. *Oral presentation at Southwest Florida Seagrass Working Group, Sarasota, FL*
- (G) S McAskill, (UG) Spencer Talmage, and JG Douglass (2014b) Effects of salinity and temperature on consumption of a native SAV by an invasive herbivorous gastropod. *Poster presentation at Florida Native Plant Society Conference, FGCU, Fort Myers, FL*
- (G) S McAskill, (UG) Spencer Talmage, and JG Douglass (2014a) Effects of salinity and temperature on consumption of a native SAV by an invasive herbivorous gastropod. *Poster presentation at 43rd annual Benthic Ecology Meeting, Jacksonville, FL*
- (UG) S Mariolan and JG Douglass (2014) Spatial and seasonal patterns of epiphyte abundance on seagrasses in the Caloosahatchee Estuary, Florida; Abiotic drivers and ecological consequences. *Poster presentation at 43rd annual Benthic Ecology Meeting, Jacksonville, FL*
- JG Douglass (2014) Top-down effects in the context of seasonal change in a subtropical seagrass ecosystem. *Oral presentation at 43rd Annual Benthic Ecology Meeting, Jacksonville, FL*
- (UG) H Butler, (UG) W McDowell, and JG Douglass (2013) Characterization of SAV epifaunal communities in Florida's Caloosahatchee Estuary. *Poster presentation at 42nd Annual Benthic Ecology Meeting, Savannah, GA*
- (UG) S Mariolan and JG Douglass (2013) Assessing epiphyte abundance on seagrasses in the Caloosahatchee Estuary, FL. *Poster presentation at 42nd Annual Benthic Ecology Meeting, Savannah, GA*
- JG Douglass (2013) Are anthropogenic salinity extremes impeding SAV recovery in the Caloosahatchee Estuary, FL? *Oral presentation at 42<sup>nd</sup> Annual Benthic Ecology Meeting, Savannah, GA*

## **SERVICE**

### **Service to FGCU:**

- \*Organizer and recruiter of distinguished outside speakers for FGCU Marine and Ecological Sciences Department Seminar Series. 2012-present
- \*Laboratory coordinator for Whittaker Hall Room 105. 2012-present
- \*Participating member of FGCU Institutional Animal Care and Use Committee. 2013-present
- \*Appointed chair of FGCU Institutional Animal Care and Use Committee. 2017
- \*Member of Plant Systematist faculty search committee for FGCU Biology Department. 2014
- \*Chair of job search committee to select a Marine and Ecological Sciences Department Laboratory Manager. 2016

\*Member of Marine Chemist faculty search committee for Marine and Ecological Sciences Department. 2017-18

**Service to Science and Environmental Organizations:**

- \*Attended Estero Bay Seagrass Restoration Workshop in Fort Myers, FL, leading to membership in Estero Bay Seagrass Steering Committee. September 2013
- \*Attended monthly Estero Bay Seagrass Steering Committee meetings at the Estero Bay Aquatic Preserve office in Ft. Myers Beach. 2013-present
- \* Field trip leader for Florida Native Plant Society Conference, Vester Field Station. 2014
- \* Helped write a Memorandum of Understanding (MOU) agreement to enhance collaboration between the Estero Bay Aquatic Preserve (EBAP) and FGCU. The MOU is now officially approved. 2015-2016
- \*Participated in annual EBAP MOU coordination meetings, 2016-present

**Service with Local Civic Groups and Events:**

- \*Immokalee Foundation- Spoke with underprivileged high school students about college and careers in marine science, 2014
- \*Brought one of Coastal Watershed Institute's Carolina Skiffs to "Touch a Boat" event in downtown Fort Myers. The event was a show-and-tell where various governmental agencies, businesses, and non-profits who do aquatic work showed off their boats, 2014
- \*Boys and Girls Club of Collier County, Naples, FL- Participated in career mentoring session for Junior Men/Women of Distinction program for middle school aged students, 2017

**Service in the form of Public Lectures:**

- November 2018: Florida Algae Crisis; Description, Causes, and Cure. Oasis Highschool Marine Biology Class, Cape Coral, FL
- September 2018: Florida Algae Crisis; Description, Causes, and Cure. Southwest Florida Real Estate Investment Association monthly meeting, Cape Coral, FL
- June 2017: "Seagrass Ecosystems." FAU Pine Job Environmental Center "H2O Camp" for highschool students, Vester Marine Station, Bonita Springs, FL.
- May 2016: "Aquatic life of the Imperial River." Everglades Wondergardens, Bonita Springs, FL
- March 2016: "Seagrass research at Florida Gulf Coast University." Captains for Clean Water (nonprofit organization) meeting. Bass Pro Shops, Fort Myers, FL
- February 2016: "Seagrass research at Florida Gulf Coast University." Michael Massaro Vester Marine Station resident artist art installation opening at FGCU Library, Fort Myers, FL
- February 2016: "Marine Grazers: Sea Cows to Sea Slugs." Bailey-Matthews Shell Museum, Sanibel, FL
- January 2016: "Seagrass Ecosystems in a Changing World" Smithsonian Marine Station at Fort Pierce, FL

**Service to the Broader Cultural Community:**

- \*Published a science-based, environmental-themed article, "How Green is Windsurfing" for a popular newsprint publication, Boards Magazine (UK). 2013
- \*Scientific Consultant for "Monami," a seagrass-themed dance production by FGCU students for World Water Dance Day. 2014

\* Collaborated with students and Vester Marine Station artist in residence Michael Massaro on seagrass and conservation themed art installations. 2015-2016