

Seagrass Ecosystems Research Lab

Florida International University

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Research Interests

- Biogeochemistry of the coastal ocean
- Nutrient cycling in the marine environment
- Seagrass physiological ecology
- Marine food webs
- Ecosystem modeling

Research Introduction

- [Importance of Seagrass Monitoring](#)
- [Seagrass Meadows and Nutrients](#)
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Publications

Recent Articles

Bourque, A. S., and J. W. Fourqurean. 2013a. Variability in herbivory in subtropical seagrass ecosystems and implications for seagrass transplanting. *Journal of Experimental Marine Biology and Ecology* 445:29–37.

Campbell, J. E., and J. W. Fourqurean. 2013a. Effects of in situ CO₂ enrichment on the structural and chemical characteristics of the seagrass *Thalassia testudinum*. *Marine Biology*:1–11.

Burkholder, D. A., M. R. Heithaus, J. W. Fourqurean, A. Wirsing, and L. M. Dill. 2013. Patterns of top down control in a seagrass ecosystem: could a roving apex predator induce a behaviour mediated trophic cascade? *Journal of Animal Ecology*.

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Baggett, L. P., K. L. Heck Jr., T. A. Frankovich, A. R. Armitage, and J. W. Fourqurean. 2013b. Stoichiometry, growth, and fecundity responses to nutrient enrichment by invertebrate grazers in sub-tropical turtle grass (*Thalassia testudinum*) meadows. *Marine Biology* 160:169–180.

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Price, R.M., G. Skrzypek, P.F. Grierson, P.K. Swart, and J.W. Fourqurean. 2012. The use of stable isotopes of oxygen and hydrogen in identifying water exchange of in two hypersaline estuaries with different hydrologic regimes. *Marine and Freshwater Research* 63:952-966.

Cawley, K.M., Y. Ding, J.W. Fourqurean and R. Jaffe. 2012. Characterizing the sources and fate of dissolved organic matter in Shark Bay, Australia: A preliminary study using optical properties and stable carbon isotopes. *Marine and Freshwater Research* 63:1098-1107.

Belicka, L.L., D. Burkholder, J.W. Fourqurean, M.R. Heithaus, S.A. Macko and R. Jaffe. 2012. Stable isotope and fatty acid biomarkers of seagrass, epiphytic, and algal organic matter to consumers in a nearly pristine seagrass ecosystem. Australia. *Marine and Freshwater Research* 63:1085-1097.

Pendleton, L., D.C. Donato, B.C. Murray, S. Crooks, W.A. Jenkins, S. Sifleet, C. Craft, J. W. Fourqurean, B. Kauffman, N. Marba, P. Megonigal, E. Pidgeon, V. Bilbao-Bastidam, R. Ullman, and D. Gordon. 2012. Estimating global "blue carbon" emissions from conversion and degradation of vegetated coastal ecosystems. *PLoS ONE* 7(9):e43542.

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Hitchcock, G.L., J.W. Fourqurean, J. Drake, R.N. Mead and C.A. Heil. 2012. Brevetoxin persistence in sediments and seagrass epiphytes of east Florida coastal waters. *Harmful Algae* 13:89-94

Burkholder, D.A., M.R. Heithaus, J.A. Thomson and J.W. Fourqurean. 2011. Diversity in trophic interactions of green sea turtles (*Chelonia mydas*) on a relatively pristine coastal seagrass foraging ground. *Marine Ecology Progress Series* 439: 277–293.

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