Craig A. Layman

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EDUCATION

2004	Ph.D.	Texas A & M University, Ecology and Evolution Minor Concentration in Philosophy
1999	M.S.	University of Virginia, Environmental Sciences
1996	B.A.	University of Virginia, Triple Major: Biology, Economics, and Environmental Sciences

PROFESSIONAL APPOINTMENTS

2024-Present	*Research Leadership and Success Consultant*, CareerVolt
2020-Present	*Senior Fellow*, Center for Environment and Sustainability, Wake Forest University
2020-Present	*Research Professor*, Department of Biology, Wake Forest University
2017-2019	*Professor*, Chancellor's Faculty Excellence Fellow, Department of Applied Ecology, North Carolina State University
2013-2017	*Associate Professor*, Chancellor's Faculty Excellence Fellow, Department of Applied Ecology, North Carolina State University
2012-13	*Associate Professor*, Florida International University
2006-2012	*Assistant Professor*, Florida International University
2004-2006	*Gaylord Donnelley Postdoctoral Fellow*, Yale University
2003-2004	*Fulbright Fellow,* Venezuela

GRANTS AWARDED

National Science Foundation, "Fish aggregations and biogeochemical hot spots across regional environmental gradients," $657,849 (OCE 1405198, 2014-2019).

National Geographic Society, "Exploring the role of biological factors in widespread mangrove die-off: A citizen science-based approach," $29,800.

National Fish and Wildlife Foundation, “New geographic and ecological connections between hawksbill nesting and foraging to bolster Caribbean conservation,” $25,000.

National Science Foundation, “RAPID: An interdisciplinary approach to elucidating the causes of widespread mangrove die-off,” $75,187 (OCE 1405198, 2015-2016).

U.S. Fish and Wildlife Service, “Integrated methods for controlling invasive lionfish,” $15,482 (205-2016).

National Science Foundation, “CAREER: Assessing effects of ecosystem fragmentation using novel measures of trophic structure as part of a broad educational outreach program,” $803,449 (OCE 0746164, 2008-13).

Loxahatchee River District, “Oyster reef fauna monitoring,” $177,000 (2007-2013).

FIU Faculty Support Research program, “Evolutionary change in The Bahamas mosquitofish: anthropogenic drivers of divergent selection environments,” $19,554. (2012-2013).

National Science Foundation, “Collaborative Research: Human-induced phenotypic variation in an endemic livebearing fish,” $393,996 (DEB 0842196, 2009-12, with Brian Langerhans, North Carolina State University).

CSA International, “Oyster reef restoration monitoring,” $84,000 (2009-2011).

Perry Institute of Marine Science, “Development of a West Andros Marine Reserve,” $33,000 (2007-9).

Bonefish-Tarpon Unlimited, “Identifying bonefish spawning migration routes,” $15,350 (2008).

Florida International University, “Developing the capacity to analyze RNA-DNA ratios as a means to evaluate implications of intraspecific niche variation,” $17,000 (2008-9).

Acorn Alcinda Foundation Conservation Grant, $2,500 (annual, 2002-2017).

South Florida Water Management District, “Developing ecological indicators for managing freshwater inflows to the Loxahatchee River,” $35,000 (2009).

South Florida Water Management District, “Monitoring snook movement patterns in the Loxahatchee River,” $20,000 (2008)

Association for the Coral Environment, “Nassau grouper research program,” $25,000 (2007-2008).

RJ/Kose in conjunction with The Nature Conservancy, “Developing indicators for conservation and restoration of critical nursery habitats in the tropical Western Atlantic,” $100,000 (2005-2005).

Selected Student Fellowships/Awards as Primary Mentor

Andrew Maurer, National Science Foundation Graduate Research Fellowship (2017-2022).

April Lamb, National Science Foundation Graduate Research Fellowship (2017-2020).

Andrew Maurer, Fulbright Fellowship in Antigua, 2018.

Sean Giery, National Science Foundation, Doctoral Dissertation Improvement Grant, "Divergent sexual selection and behavioral isolation due to anthropogenic ecosystem fragmentation" (2014-2016).

Ryann Rossi, National Science Foundation Graduate Research Fellowship (2014-2019).

Elizabeth Stoner, Environmental Protection Agency STAR Fellowship (2011-2014).

Lauren Yeager, National Science Foundation Graduate Research Fellowship (2009-2012).

REFEREED JOURNAL PUBLICATIONS

158. Gorelick, J., Layman, C.A., Asner, G., and Silman, M.R. In review. Satellite remote sensing of seagrass dynamics on Lighthouse Reef Atoll, Belize. *Caribbean Journal of Science.*

157. Quinlan, E.J., Layman, C.A., and Silman, M.R. Climate-mediated hybridization and the future of Andean forests. *EcoEvoRxiv*. https://ecoevorxiv.org/repository/view/7211/.

156. Farfan-Rios, W., Saatchi, S., Oliveras, I., Malhi,Y., Robinson,C.M., Phillips, O.L., Nina-Quispe, A., Gibaja, J.A., Cuba, I., Garcia-Cabrera, K., Salinas-Revilla, N., Terborgh, J., Pitman, N., Vasquez, R., Monteagudo Mendoza, A., Nunez Vargas, P., Cornejo, F., Layman, C.A., Silman, M.R. In review. Wood density variation across an Andes-to-Amazon elevational gradient. *Functional Ecology.*

155. Miller, K.E., Ragheb, E.L.H., and Layman, C.A. In press. Optimizing avian translocation success: a systematic review of the effect of release age on survival, dispersal, and productivity. *Conservation Science and Practice.*

154. Layman, C.A., Kadar, J., Lyall, B., Brown C. 2024. A review of factors affecting farmed Atlantic Salmon (*Salmo salar*) welfare in Australia and beyond. *EcoEvoRxiv*. https://ecoevorxiv.org/repository/view/6960/

153. Andskog, M.A., Layman, C.A., and Allgeier, J.E. 2023. Seagrass production around artificial reefs is resistant to human stressors. *Proceedings of the Royal Society B-Biological Sciences.* 290. 20230803. 10.1098/rspb.2023.0803.

152. Layman, C.A. and Rypel, A.L. 2023. Beyond Kuhnian Paradigms: Normal science and theory dependence in ecology. *Ecology and Evolution.* 13(7):e10255.

151. Campanino, F.M., English, P.A., Layman, C.A., and Archer, S.K. 2023. Sponge presence increases the diversity and abundance of fish and invertebrates in a subtropical seagrass bed. *Estuaries and Coasts.* 10.1007/s12237-023-01186-x

150. Arrington, D.A., Harris, R.J., Layman, C.A. Gomes, D.G.E. 2023. Leveraging green infrastructure for efficient treatment of reclaimed water. *Science of the Total Environment.* 872(162232).

149. Stoner, E.W., Archer, S.K., and Layman, C.A. 2022. Increased nutrient availability correlates with increased growth of the benthic jellyfish *Cassiopea* spp. *Food Webs* 31.

148. Brines, E.M., Andskog, M.A., Munsterman, K.S., Layman, C.A., McCoy, M, and Allgeier, J.E. 2022. Anthropogenic nutrients mitigate importance of fish-mediated nutrient supply for seagrass beds in Haiti. *Marine Biology* 169:38.

147. Layman, C.A., Maura, O.P., Giery, S.T., Allgeier, J.E., and Rypel, A.L. 2022. Direct economic inputs from internationally funded science projects to the Abaco Islands, The Bahamas. *Caribbean Journal of Science.* 52(1):16-23.

146. Maurer, A.S., Stapleton, S.P., Layman, C.A., and Burford Reiskind, M.O. 2021. The Atlantic *Sargassum* invasion impedes beach access for nesting sea turtles. *Climate Change Ecology* 2:100034.

145. Maurer, A.S., Seminoff, J.A., Layman, C.A., Stapleton, S.P., Godfrey, M.H., and Burford Reiskind, M.O. 2021. Population viability of sea turtles in the context of global warming. *Bioscience* 71(8):790-804.

144. Archer, S.K., English, P., Campanino, F.M., and Layman, C.A. 2021. Sponges facilitate primary producers in a Bahamian seagrass system. *Marine Biology* 168(11):162.

143. Bilodeau, S.M., Layman, C.A., and Silman, M.R. 2021. Benthic pattern formation in shallow tropical reefscapes: does grazing explain grazing halos? *Landscape Ecology* 36(6):1605-1620.

142. Langerhans, R.B., Goins, T.R., Stemp, K.M., Riesch, R., Araújo, M.S., and Layman, C.A. 2021. Consuming costly prey: optimal foraging and the role of compensatory growth. *Frontiers in Ecology and Evolution* 8:603387.

141. Bogdanoff, A.K., Shertzer, K.W., Layman, C.A., Chapman, J.K., Futerima, M., Solomon, J., Sabattis, J., Green, S., and Morris, J.A. Jr. 2021. Optimum lionfish yield: A non-traditional management concept or invasive lionfish (*Pterois* spp.) fisheries. *Biological Invasions* 23:795-810.

140. Jud, Z.R. and Layman, C.A. 2020. Changes in motile benthic community structure following oyster reef restoration in a subtropical estuary. *Food Webs* e00177.

139. Layman, C.A., Allgeier, J.E., and Giery, S. T. 2020. Moving beyond semantics: Advancing restoration with food web approaches. *Food Webs* 25:e00175.

138. Layman, C.A. and Rypel, A. L. 2020. Secondary production is an underutilized metric to assess restoration initiatives. *Food Webs* 25:e00174.

137. Archer, S.K., Kahn, A.S., Thiess, M., Law, L, Leys, S.P., Johannessen, S.C., Layman, C.A., Burke, L., and Dunham, A. 2020. Foundation species abundance influences food web topology on glass sponge reefs. *Frontiers in Marine Science* 7:549478.

136. Layman, C.A. and Allgeier, J.E. 2020. Artificial reefs viewed from the bottom-up: an ecosystem ecology perspective. *Journal of Applied Ecology* 57(11):2139-2148.

135. Allgeier, J.E., Wenger, S., and Layman, C.A. 2020. Taxonomic identity best explains variation in body nutrient stoichiometry in a diverse marine animal community. *Scientific Reports* 10:13718.

134. Allgeier, J.E., Cline, T.J., Walsworth, T.E., Wathen, G., Layman, C.A., and Schindler, D.E. 2020. Individual behavior drives ecosystem function and the impacts of harvest. *Science Advances* 6(9):eaax8329.

133. Allgeier, J.E., Andskog, M.A., Hensel, E., Appaldo, R., Layman, C.A., and Kemp, D.W. 2020. Re-wiring coral: Anthropogenic nutrients shift diverse coral-symbiont nutrient and carbon interactions toward algal dominance. *Global Change Biology* 26:5588-5601.

132. Rossi, R.E., Archer, S.K. Giri, C. and Layman, C.A. 2020. The role of multiple stressors in a dwarf red mangrove (*Rhizophora mangle*) dieback. *Estuarine, Coastal and Shelf Science* 237:106660.

131. Maurer, A.S., Stapleton, S.P., and Layman, C.A. 2019. Impacts of the Caribbean *Sargassum* influx on sea turtle nesting ecology. *Proceedings of the Gulf and Fisheries Institute.* 71:327-329.

130. Hensel, E., Allgeier, J.E., and Layman, C.A. 2019. Effects of predator presence and habitat complexity on reef fish communities in The Bahamas. *Marine Biology* 166:136.

129. Lyon, R.P., Eggleston, D.B., Bohnenstiehl, D.R., Layman, C.A., Ricci, S.W., and Allgeier, J.E. 2019. Fish community structure, habitat complexity, and soundscape characteristics of patch reefs in a tropical, back-reef system. *Marine Ecology Progress Series* 609:33-48.

128. Giery, S.T. and Layman, C.A. 2019. Ecological consequences of sexual selection. *Quarterly Review of Biology* 94(1):29-74.

127. Bogdanoff, A.K., Mostowy, J., Peake, J., Layman, C.A., Bermudez, A.B., Baca, C.G., Palacios, N.H., Gonzalez, D.T.M., Xicoténcatl, M.R.B., and Morris, J.A. Jr. 2018. A brief description of invasive lionfish *Pterois volitans* diet composition in the Arrecifes de Cozumel National Park. *Food Webs* e00104.

126. Hensel, S., Wenclawski, S., and Layman, C.A. 2018. Using a small, consumer-grade drone to identify and count marine megafauna in shallow habitats. *Latin American Journal of Aquatic Research* 46(5):1025-1033.

125. Allgeier, J.E., Layman, C.A., Montaña, C.G., Buhler, S., Appaldo, R., and Rosemond, A.D. 2018. Anthropogenic versus fish-derived nutrient effects on seagrass community structure and function. *Ecology* 99(8):1792-1801.

124. Peake, J., Bogdanoff, A.K., Layman, C.A., Castillo, B., Reale-Munroe, K., Chapman, J., Dahl, K., Patterson, W., Eddy, C., Faletti, K., Higgs, N., Johnston, M.A., Muñoz, R.C., Sandell, V., Villasenor-Derbez, J.C., and Morris, J.A. Jr. 2018. Feeding ecology of invasive lionfish (*Pterois volitans* and *Pterois miles*) in the temperate and tropical western Atlantic. *Biological Invasions.* https://doi.org/10.1007/s10530-018-1720-5.

123. Kenworthy, M.D., Grabowski, J.H., Layman, C.A., Sherwood, Graham, D., Powers, S.P., Peterson, C.H., Gittman, R.K., Keller, D.A., and Fodrie, F.J. 2018. Movement ecology of a mobile predatory fish reveals limited habitat linkages within a temperate estuarine seascape. *Canadian Journal of Fisheries and Aquatic Sciences* 75(11):1990-1998.

122. Henson, M.N., Aday, D.D., Rice, J.A. and Layman, C.A. 2018. Assessing the influence of tilapia on sport species in North Carolina reservoirs. *Transactions of the American Fishery Society* 147:350-362.

121. Archer, S.K., Buhler, S. and Layman, C.A. 2018. Ambient nutrient availability drives the outcome of an interaction between a sponge (*Halichondria melanadocia*) and a seagrass (*Thalassia testudinum*). *Journal of Ecology* 503:86-91.

120. Rossi, R.E., Giery, S.T., Bonnema, E.W., Todd, A.L., and Layman, C.A. 2017. Characterizing trophic ecology of the checkered puffer (*Sphoeroides testudieus*). *Latin American Journal of Aquatic Research.* 45(5): 1075-1078.

119. Araújo, M.S., R. B. Langerhans, R.B., Layman, C.A. 2017. Body streamlining is related to higher growth rates in Bahamian mosquitofish. *Evolutionary Ecology Research* 18(4):383-391.

118. Olds, A.D., Vargas-Fonseca, E., Connolly, R.M., Gilby, B.L., Huijbers, C.H., Hyndes, G.A., Layman, C.A, Whitfield, A.K., and Schlacher, T.A. 2017. Ecology of fish in surf zones of beaches: a global review. *Fish and Fisheries*. 00:1–12. https://doi.org/10.1111/faf.12237.

117. Archer, S.K., Stevens, J.L., Rossi, R.E., Matterson, K. and Layman, C.A. 2017. Abiotic conditions drive significant variability in nutrient processing by a common Caribbean sponge, *Ircinia felix. Limnology and Oceanography* 62:1783-1793.

116. Giery, S.T. and Layman, C.A. 2017. Dissolved organic carbon and unimodal variation in sexual signal coloration in mosquitofish: a role for light limitation? *Proceedings of the Royal Society of London B.* 284: 20170163.

115. Sweatman, J.L., Layman, C.A., and Fourqurean, J.W. 2017. Habitat fragmentation has weak impacts on aspects of ecosystem functioning in a sub-tropical seagrass bed. *Marine Environmental Research* 126:95-108.

114. Allgeier, J.E., Burkepile, D.E., and Layman, C.A. 2017. Animal pee in the sea: consumer-mediated nutrient dynamics in the world's oceans. *Global Change Biology.* doi: 10.1111/gcb.13625.

113. Pinheiro, I.E., Layman, C.A., Castello, J.P. and Leite, T.S. 2017. Trophic role of demersal predators on rocky reefs in an Equatorial Atlantic Ocean Island. *Journal of Applied Ichthyology* 33:47-53.

112. Albo-Puigserver, M., Navarro, J., Coll, M., Layman, C.A., and Palomera, I. 2016. Trophic structure of pelagic fish species in the northwestern Mediterranean Sea. *Marine Environmental Research* 117:27-35.

111. Layman, C.A., Allgeier, J.E., and Montaña, C.G. 2016. Mechanistic evidence of enhanced production on artificial reefs: A case study in a Bahamian seagrass ecosystem. *Ecological Engineering.* 95:574-579.

110. Allgeier, J.E, Valdivia, A., Cox, C., Bruno, J.F., and Layman, C.A. 2016. Fishing down nutrients on coral reefs. *Nature Communications* DOI: 10.1038/ncomms12461.

109. Stoner, E.W., Sebilian, S.S., Layman, C.A. 2016. Zooxanthellae densities in upside-down jellyfish, *Cassiopea* spp., from coastal habitats of The Bahamas. *Revista de Biología Marina y Oceanografía.* 51:203-208.

108. Antón, A., Cure, K, Layman, C.A., Puntila, R., Simpson, M.S., and Bruno, J.F. 2016. Prey naiveté to invasive lionfish (*Pterois volitans*). *Marine Ecology Progress Series* 544:257-269.

107. Yeager, L.A., Stoner, E.W., Peters, J.R. and Layman, C.A. 2016. A terrestrial-aquatic food web subsidy is potentially mediated by multiple predator effects on an arboreal crab. *Journal of Experimental Marine Biology and Ecology* 475:73-79.

106. Layman, C.A., Giery, S.T., Buhler, S., Rossi, R., Penland, T., Henson, M.N., Bogdanoff, A.K., Cove, M.V., Irizarry, A.D., Schalke, C.M., and Archer, S.K. 2015. A primer on the history of food web ecology: Fundamental contributions of fourteen researchers. *Food Webs* 4:14-24.

105. Riesch, R., Easter, T., Layman, C.A., and Langerhans, R.B. 2015. Rapid human-induced divergence of life history strategies in Bahamian live-bearing fishes (family Poeciliidae). *Journal of Animal Ecology* 84(6):1732-1743.

104. Giery, S.T. and Layman, C.A. 2015. Interpopulation variation in a condition-dependent signal: predation regime affects signal intensity and reliability. *American Naturalist* 186(2): 187-195.

103. Allgeier, J.E., Wegner, S., Rosemond, A.D., Schindler, D.E., and Layman, C.A. 2015. Metabolic theory and biodiversity, but not stoichiometry, best predict nutrient recycling in a diverse food web. *Proceedings of the National Academy of Sciences* 112(20):E2640-E2647.

102. Giery, S.T., Layman, C.A., and Langerhans, R.B. 2015. Anthropogenic ecosystem fragmentation drives shared and unique patterns of sexual signal divergence among three species of Bahamian mosquitofish. *Evolutionary Applications* 8(7):679-691.

101. Stoner, E.W. and Layman, C.A. 2015. Bristle worms attack: Benthic jellyfish are not trophic dead ends. *Frontiers in Ecology and the Environment* 13:226-227.

100. Peters, J.R., Yeager, L.A., and Layman, C.A. 2015. Comparison of fish assemblages in restored and natural mangrove habitats along urban shorelines of Biscayne Bay, Florida. *Bulletin of Marine Science* 91(2):125-139.

99. Huijbers, C.M., Nagelkerken, I. and Layman, C.A. 2015. Fish movement from nursery bays to coral reefs: a matter of size? *Hydrobiologia* 750:89-101.

98. Archer, S.K., Stoner, E.W., and Layman, C.A. 2015. Context dependent species interaction between a sponge (*Halichondria melanadocia*) and a seagrass (*Thalassia testudinum*). *Journal of Marine Biology and Ecology* 465:33-40.

97. Montaña, C., Layman, C.A., and Winemiller, K.O. 2015. Species-area relationship within benthic Habitat patches of a tropical floodplain river: an experimental test. *Austral Ecology* 40(3):331-336.

96. Heinen-Kay, J.L., Noel, H.G., Layman, C.A., and Langerhans, R.B. 2014. Human-caused habitat fragmentation drives rapid divergence of male genital morphology in Bahamian mosquitofish. *Evolutionary Applications* 7(10):1252-1267.

95. Fodrie, J.F., Yeager, L.A., Grabowski, J.H., Layman, C.A., Sherwood, G.D., and Kenworthy, M.D. 2015. Measuring individuality in habitat use across complex landscapes: approaches, constraints, and implications for assessing resource specialization. *Oecologia* 178(1):75-87.

94. Nifong, J.C., Layman, C.A., and Silliman, B.R. 2014. Size, sex, and individual-level behavior drive intra-population variation in cross-ecosystem foraging of a top-predator. *Journal of Animal Ecology* 84:35-48.

93. Layman, C.A., Newsome, S.D., and Crawford, T.G. 2015. Individual specialization within populations: emerging areas of study. *Oecologia* 178(1):1-4.

92. Chacin, D.H., Yeager, L.A., Giery, S.T., Layman, C.A., and Langerhans, R.B. 2015. Does hydrologic fragmentation affect coastal bird communities? A study from Abaco Island, The Bahamas. *Wetlands Ecology and Management* 23(3):551-557.

91. Stoner, E.W., Yeager, L.A., Sebilian, S.S., Sweatman, J.L. and Layman, C.A. 2014. Modification of a seagrass community by benthic jellyfish blooms and nutrient enrichment. *Journal of Experimental Marine Biology and Ecology* 461:185-192.

90. Zapata, M.J., Yeager, L.A., and Layman, C.A. 2014. Day-night patterns in natural and artificial patch reef fish assemblages of The Bahamas. *Caribbean Naturalist* 18:1-15.

89. Layman C.A., Jud, Z.R., and Nichols, P. 2014. Lionfish alter benthic invertebrate assemblages. *Marine Biology* 161(9):2179-2182.

88. Allgeier, J.E., Layman, C.A., Mumby, P.J., and Rosemond, A.D. 2015. Biogeochemical implications of biodiversity and community structure across multiple coastal ecosystems. *Ecological Monographs* 85(1):117-132.

87. Archer, S.K., Allgeier, J.E., Semmens, B.X., Heppell, S.A., Pattengill-Semmens, C.V., Rosemond, A.D., Bush, P.G., McCoy, C.M., Johnson, B.C., and Layman, C.A. 2015. Hot moments in spawning aggregations: implications for ecosystem-scale nutrient cycling. *Coral Reefs* 34:19-23.

86. Layman C.A., Jud, Z.R., Archer, S.K. and Riera, D. 2014. Provision of ecosystem services by

artificial structures in a highly impacted estuary. *Environmental Research Letters* 9 (2014) 044009.

85. Yeager, L.A., Stoner, E.W., Zapata, M.J., and Layman, C.A. 2014. Does landscape context mediate the nature of density dependence for a coral reef fish? *Ecological Applications* 24:1833-1841.

84. Winemiller, K.O., Roelke, D.L., Cotner, J.B., Montoya, J.V., Sanchez, L., Castillo, M.M., Montaña, C. and Layman, C.A. 2014. Pulsing hydrology determines top-down control of basal resources by fish and meiofauna in a tropical river-floodplain ecosystem. *Ecological Monographs* 81:621-635.

83. Stoner, E.W., Yeager, L.A., and Layman, C.A. 2014. Effects of the epibenthic jellyfish, *Cassiopea* spp., on faunal community structure of Bahamian seagrass beds. *Caribbean Naturalist* 12:1-10.

82. Yeager, L.A., Layman, C.A., and Hammerschlag-Peyer, C.M. 2014. Diet variation of a generalist fish predator, Gray snapper *Lutjanus griseus*, across an estuarine gradient: trade-offs of quantity for quality? *Journal of Fish Biology* 85(2):264-277.

81. Araújo, M.S., Langerhans, R.B., Giery, S.T. and Layman, C.A. 2014. Ecosystem fragmentation drives increased diet variation in an endemic livebearing fish of The Bahamas. *Ecology and Evolution* 4(16):3298-3303.

80. Allgeier, J.E., Layman, C.A., Mumby, P.J., Rosemond, A.D. 2014. Consistent nutrient storage and supply mediated by diverse fish communities in coral reef ecosystems. *Global Change Biology* 20(8):2459-2472.

79. Côté, I.M., Darling, E.S., Malpica-Cruz, L., Smith, N.S., Green, S.J., Curtis-Quick, J., and Layman, C.A. 2014. What doesn't kill you makes you wary? Effect of repeated culling on the behaviour of an invasive predator. *PLoS One* 9(4): e94248.

78. Jud, Z.R., Layman C.A. and Nichols, P.K. 2015. Broad salinity tolerance in the invasive lionfish, *Pterois* spp., facilitates estuarine invasion. *Environmental Biology of Fishes* 98:135-143.

77. Layman C.A., Jud, Z.R., Arrington, D.A., and Sabin, D. 2014. Using fish behavior to assess habitat quality of a restored oyster reef. *Ecological Restoration* 32(2):140-143.

76. Bruno, J.F., Valdivia, A., Hackerott, S., Cox, C.E., Green, S.J., Côte, I.M., Akins, L., Layman, C.A., Precht, W.F. 2013. Testing the grouper biocontrol hypothesis: A response to Mumby et al. 2013. *Peer J Pre-prints* 1:e139v1.

75. Giery, S.T., Lemoine, N.P., Hammerschlag-Peyer, C.M., Abbey-Lee, R.N. and Layman, C.A. 2013. Bidirectional trophic linkages couple canopy and understory food webs. *Functional Ecology* 27(6):1436–1441.

74. Hackerott, S.,Valdivia, A., Green, S.J., Côté, I.M., Cox, C.E., Akins, L., Layman, C.A., Precht, W.F., and Bruno, J.F. 2013. Native predators do not influence invasion success of Pacific lionfish on Caribbean reefs. *PLoS One* 8(7): e68259.

73. Hammerschlag-Peyer, C.M, Allgeier, J.E., and Layman, C.A. 2013. Predator effects on faunal community composition in shallow seagrass beds of The Bahamas. *Journal of Experimental Marine Biology and Ecology* 446:282-290.

72. Burkepile, D.E., Allgeier, J.E., Shantz, A.A., Pritchard, C.E., Lemoine, N., Bhatti, L., and Layman, C.A. 2013. Nutrient supply from fishes facilitates macroalgae and suppresses corals in a Caribbean coral reef ecosystem. *Scientific Reports* 3:1493 DOI 10.1038.

71. Heithaus, M.R., Vaudo, J.J., Kreicker, S., Layman, C.A., Krützen, M., Burkholder, D.A., Gastrich, K.,

Bessey, C., Sarabia, R., Cameron, K., Wirsing, A., Thomson, J.A., and Dunphy-Daly, M.M. 2013. Apparent resource partitioning and trophic structure of large-bodied marine predators in a relatively pristine seagrass ecosystem. *Marine Ecology Progress Series* 481:225-237.

70. Allgeier, J.E. Yeager, L.A., and Layman, C.A. 2013. Consumers regulate nutrient limitation regimes and primary production in seagrass ecosystems. *Ecology* 94(2):521-529.

69. Layman, C.A., Allgeier, J.E., Yeager, L.A., and Stoner, E.W. 2013. Thresholds of ecosystem response to nutrient enrichment by aggregating fishes. *Ecology* 94(2):530-536.

68. Yeager, L.A., Acevedo, C.L. and Layman, C.A. 2012. Effects of seascape context on abundance, condition and secondary production of a coral reef fish, *Haemulon plumierii*. *Marine Ecology Progress Series* 462:231-240.

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BOOK CONTRIBUTIONS

Jackson, C.B. (Author) and Layman, C.A. (Ghost Writer). 2022. *Mikron: A Microscopic World in Everything.*

Faunce, C.H. and Layman, C.A. 2009. Sources of variation that affect perceived nursery function of mangroves. In: *Ecological Connectivity among Tropical Coastal Ecosystems,* Springer, pp. 401-421.

Layman, C.A., Winemiller, K.O., and D.A. Arrington. 2005. Describing the structure and function of a Neotropical river food web using stable isotopes, stomach contents, and functional experiments. In: *Dynamic Food Webs: Multispecies Assemblages, Ecosystem Development, and Environmental Change*. Elsevier/Academic Press, pp. 395-406.

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EDITORSHIP

2023-Present	*Grant Writer/Editor,* Euroleader
2019-Present	*Science Content Reviewer*, Cactus Communications
2019-Present	*Freelance Science Writer, Editor, and Writing Consultant*
2019-2024	*Head Editor,* Caribbean Naturalist (Eagle Hill Publications)
2019-2021	*Special Content Editor*, Food Webs (Elsevier)
2011-2021	*Editorial Board*, Oecologia (Springer)
2016-2019	*Editor-in-Chief*, Food Webs (Elsevier)
2008-2019	*Editorial Board*, Caribbean Naturalist (Eagle Hill Publications)
2008-2011	*Assistant Editor*, PLoS One (Public Library of Science)

TEACHING

2022-present	*Instructor* – Successful Science Writing, Pop-up Workshops, Wake Forest University
2022-present	*Guest Lecturer* – Coral Reef Ecology (BIO 311), Wake Forest University
2015-18	*Instructor* – Introduction to Biological Research (AEC 502), North Carolina State University
2014-18	*Instructor* **–** Applied Ecology (AEC 400), North Carolina State University
2014	*Instructor* **–** Food Web Ecology (AEC 592), North Carolina State University
2007-13	*Instructor* **-** Coastal Marine Conservation (BSC 4934/6926), Florida International University
2009-12	*Instructor* - Ecology (PCB 3043 and PCB3043L), Florida International University
2009-11	*Instructor* – Introduction to Stable Isotopes in Food Web Ecology (Seminar, BSC 6926), Florida International University
2007-8	*Instructor* **-** Introduction to Marine Biology (OCB2003 and OCB2003L), Florida International University
2007	*Instructor* – Otoliths and Fish Age Estimation (Seminar, BSC 6926), Florida International University
2003-2005	*Assistant Instructor* **-** Bahamas Field Course in Stream Restoration (BSC 467/567), Joint between students of the College of the Bahamas and University of Alabama.
2004	*Instructor* - "Indices de Integridad Biótica" (Indexes of Biotic Integrity), M.S. Seminar at Universidad Experimental de Los Llanos, Venezuela. Course taught in Spanish.

2003 *Instructor* - "Ideas Nuevas en Ecología" (New Ideas in Ecology), M.S. Seminar at Universidad Experimental de Los Llanos, Venezuela. Course taught in Spanish.

2002 *Instructor* - Current Philosophical Issues in Science Seminar (WFSC 681), Texas A&M University. Created and taught course.

2000 *Teaching Assistant* - Evolutionary Ecology (WFSC 610), Texas A & M University. Created and taught lab component of course.

1997, 1998 *Teaching Assistant* - Biology of Fishes Laboratory (BIOL 330), University of Virginia.

1996-1998 *Teaching Assistant* - Introduction to Ecology Laboratory (EVSC 320), University of Virginia; Head Teaching Assistant 1998.

1998 *Teaching Assistant* - Coastal Ecology for High School Teachers, University of Virginia

STUDENTS GRADUATED

Enie Buhler, Ph.D. 2019; Alex Bogdanoff, Ph.D., 2019; Ryann Rossi, Ph.D. 2018; Sean Giery, Ph.D. 2016; Stephanie Archer Ph.D. 2015; Elizabeth Stoner, Ph.D. 2014; Zachary Jud Ph.D. 2014; Lauren Yeager, Ph.D. 2013; Jake Allgeier, Ph.D. 2013 (co-advised with Amy Rosemond, University of Georgia); Caroline Peyer, Ph.D. 2011; Vanessa Haley, M.S. 2009; Megan Seese, M.S., 2009 (co-advised with Jennifer Rehage, NOVA Southeastern University); Lori Valentine-Rose M.S., 2008 (co-advised with Amy Ward, University of Alabama).

MENTORING

2020-present *Advisor and Committee Member* – Multiple graduate students in the Wake Forest University Department of Biology and the Center for Environment and Sustainability.

2020-present *Bear Tech,* Mentoring students in independent research projects as a stepping stone from community colleges to 4-year universities.