

## LINDA A. DEEGAN

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### PROFESSIONAL PREPARATION

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|--|----------------|-------|------|
| Northeastern University, Boston, MA, USA         | Biology        | B.S.  | 1976 |
| University of New Hampshire, Durham, NH, USA     | Biology        | M.S.  | 1979 |
| Louisiana State University, Baton Rouge, LA, USA | Marine Science | Ph.D. | 1985 |

### PROFESSIONAL APPOINTMENTS

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|---|----------------|
| Co-Editor-in-Chief, Estuaries and Coasts, Coastal and Estuarine Research Federation | 2021 – current |
| Senior Scientist, Woodwell Climate Science Center                                   | 2016 – current |
| Bullard Fellow, Harvard University  | 2019           |
| Senior Scientist, Ecosystems Center, Marine Biological Laboratory                   | 2002 – 2016    |
| Director, MBL Science Journalism Program in Environment, Woods Hole, MA             | 2015 – 2018    |
| Program Director, NSF, Division of Environmental Biology, Ecosystems Program        | 2012 – 2015    |
| Director, Comparative Analysis of Marine Ecosystem Organization (CAMEO)             | 2009 – 2011    |
| Fulbright Scholar, University of São Paulo, Piracicaba, SP, Brazil                  | 2007           |
| Professor, Department of Ecology and Evolutionary Biology, Brown University         | 2004 – 2018    |
| Professor, <i>Semester in Environmental Science</i> , Marine Biological Laboratory  | 1997 – 2020    |
| Associate Scientist, Ecosystems Center, Marine Biological Laboratory                | 1994 – 2002    |
| Assistant Scientist, Ecosystems Center, Marine Biological Laboratory                | 1989 – 1994    |
| Professor, Adjunct, Environmental Conservation, University of Massachusetts         | 1985 – current |

### HONORS AND AWARDS

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- Consistently ranked in Top 1000 Scientists in Ecology and Evolution by Research.com. 2023.
- Bullard Fellow, Harvard University. 2019.
- Northeastern University. 2017. 31<sup>st</sup> Riser Lecture, Northeastern University.
- Nature (2012) Research Article Highlighted in Nature | News & Views. 2012. Ecology: The big picture of marsh loss. 490:352-353. Article recommended as a 'must read' in the Faculty of 1000 Prime.
- Keynote Distinguished Alumni Speaker, 2010. Louisiana State University, Marine Science Program.
- Invited participant, United Nations Climate Change Conference Copenhagen 2009. COP15.
- Fulbright Fellow, University of São Paulo, Brazil. 2007.
- '400 People that Make a Difference', 'Scientists and Thinkers', Cape Cod Life Magazine, 2007.
- American Assoc. of University Women, LSU Chapter, 1983 Outstanding Graduate Student.
- Rockefeller Scholarship, Governor's Special Commission on Education, LA. 1983- 1984.
- Lipsey Memorial Scholarship, Outstanding Marine Science Student. 1983.
- Noyes Foundation Scholarship for Study in Ecology at MBL. 1979.
- Inducted into Sigma Xi and Phi Sigma at Northeastern University. 1976.
- Phi Sigma Honor Society, 1976 Award for Excellence in Undergraduate Research.
- Sigma Xi Honor Society, 1974 Grant-in-aid for Academic Scholarship.
- Dean's Honor List, 4-years Undergraduate, 1972-1976.

**PUBLICATIONS.** <sup>G</sup> graduate student, <sup>P</sup> postdoc, <sup>U</sup> undergraduate

- 142) Weiss M, Holland AR, D'Amato AW, Deegan LA, Farmer WH, Hoving C, Karmalkar AV, Latzka A, Magee M, McIntyre PB, Morelli TL, Notaro M, Olmstead N, Palmer RN, Pau N, Renfrew R, Ribic CA, Sheppard JJ, Staudinger MD, Zuckerberg B, Bradley BA. In Review. Relationship-centered engagement bridges the divide between science and management and enhances climate adaptation. *BioScience*. (In revision)
- 141) Jankowski, K. J., K. Johnson, L. Sethna, P. Julian, A. S. Wymore, A. J. Shogren, P. K. Thomas, P. L. Sullivan, D. M. McKnight, W. H. McDowell, R. Heindel, J. B. Jones, W. Wollheim, B. Abbott, L. **Deegan**, J. C. Carey. 2023. Long-Term Changes in Concentration and Yield of Riverine Dissolved Silicon from the Poles to the Tropics. *Global Biogeochemical Cycles*.  
<https://doi.org/10.1029/2022GB007678>
- 140) Jakuba, R. W., Besterman, A., Hoffart, L., Costa, J. E., Ganju, N., **Deegan**, L. A. (2023) Buzzards Bay Salt Marshes: Vulnerability and Adaptation Potential. 32pp. Available from Buzzards Bay Coalition.
- 139) Lesser, J.S., O Floyd, K Fedors, L. A. **Deegan**, D. S. Johnson, J. A. Nelson. 2021. Cross-habitat access modifies the 'trophic relay' in New England saltmarsh ecosystems. *Food Webs* 29, e00206
- 138) Jankowski <sup>P</sup>, K.J., L. A **Deegan**, C. Neill, H. L. Sullivan, P. Ilha, L. Maracahipes-Santos, N. Marques, M. N. Macedo. 2021. Land use change alters ecosystem function in Amazonian headwater streams. *Water* 13.12 (2021): 1667
- 137) Medvedeff, A.B., F. M. Iannucci, L. A. **Deegan**, A. D. Huryn, W. B. Bowden. 2021. Long-term hydrological, biogeochemical, and ecological data for the Kuparuk River, North Slope, Alaska. *Hydrological Processes. Research and Observatory Catchments: The Legacy and The Future*.  
<https://doi.org/10.1002/hyp.14115>
- 136) Marques, N.C.S.<sup>P</sup>; Jankowski, K.<sup>P</sup>; Macedo, M.N., Juen, L.; Luiza-Andrade, A.<sup>G</sup>; **Deegan**, L. 2021. Riparian forests buffer the negative effects of cropland on macroinvertebrate diversity in lowland Amazonian streams. *Hydrobiologia* (2021). <https://doi.org/10.1007/s10750-021-04604-y>
- 135) Golden<sup>G</sup>, H. E., K. E. Holsinger, L. A. **Deegan**, C. J. A. MacKenzie, and M. C. Urban. 2021. River drying influences genetic variation and population structure in an Arctic freshwater fish. *Conservation Genetics*. Feb. 2021. <https://doi.org/10.1007/s10592-021-01339-0>
- 134) Babitch<sup>G</sup>, J.W., J.A. Nelson, L. A. **Deegan**, H.L. Sullivan<sup>G</sup>, and B.A. Stauffer. 2021. Resolving estuarine nitrogen use by phytoplankton communities using a whole ecosystem tracer approach. *Estuaries and Coasts*: 1 - 16. <https://doi.org/10.1007/s12237-021-00905-6>
- 133) Colombano<sup>P</sup>, D. D., S. Y. Litvin, C. Alcott, S. B. Alford, R. Baker, M. A. Barbeau, J. Cebrián, R. M. Connolly, C. A. Currin, L. A. **Deegan**, J. Lesser<sup>G</sup>, C. W. Martin, A. McDonald, C. McLucki, B. Morrison, J. W. Pahl, M. Risse, J. A. M. Smith, L. W. Staver, R. E. Turner, N. J. Waltham, and S. L. Ziegler. 2021. Climate change implications for tidal marshes and food web linkages to estuarine and coastal nekton. *Estuaries and Coasts*. Special Issue: Concepts and Controversies in Tidal Marsh Ecology Revisited. <https://doi.org/10.1007/s12237-020-00891-1>
- 132) Waltham, N. J., C. Alcott, M A. Barbeau, J. Cebrian, R. M. Connolly, L. A. **Deegan**, K. Dodds, L. A. Goodridge Gaines, B. L. Gilby, C. J. Henderson, C. M. McLuckie, T. J. Minello, G. S. Norris, J. Ollerhead, J. Pahl, J. F. Reinhardt, R. J. Rezek, C. A. Simenstad, J. A. M. Smith, E. L. Sparks, L. W. Staver, S. L. Ziegler, and M. P. Weinstein. 2021. Tidal marsh restoration optimism in a changing climate and urbanizing seascape. *Estuaries and Coasts*. Special Issue: Concepts and Controversies in Tidal Marsh Ecology Revisited. <https://doi.org/10.1007/s12237-020-00875-1>
- 131) Ziegler, S. L., R. Baker, S. C. Crosby, M. A. Barbeau, D. J. Cebrian, D. Colombano, R. M. Connolly, L.A. **Deegan**, B. L. Gilby, D. Mallick, C. W. Martin, J. A. Nelson, J. F. Reinhardt, C.A. Simenstad, N. J. Waltham, T. A. Worthington, and L. P. Rozas. 2021. Geographic variation in salt marsh structure and function for nekton: a guide to finding commonality across multiple scales. *Estuaries and*

- Coasts*. Special Issue: Concepts and Controversies in Tidal Marsh Ecology Revisited.  
<https://doi.org/10.1007/s12237-020-00894-y>
- 130) Mozdzer, T. J. Caplan; S. Drew; P. Weber; L. A. **Deegan**. 2021. Rapid recovery of carbon cycle processes after the cessation of chronic nutrient enrichment. 2020. *Science of the Total Environment*. 2021 Jan 1;750:140927. doi: 10.1016/j.scitotenv.2020.140927. Epub 2020 Jul 14.
- 129) Baker R, Taylor MD, Able KW, Beck MW, Cebrian J, Colombano DD, Connolly RM, Currin C, **Deegan** LA, Feller IC, Gilby BL, Kimball ME, Minello TJ, Rozas LP, Simenstad C, Turner RE, Waltham NJ, Weinstein MP, Ziegler SL, Zu Ermgassen PSE, Alcott C, Alford SB, Barbeau MA, Crosby SC, Dodds K, Frank A, Goeke J, Goodridge Gaines LA, Hardcastle FE, Henderson CJ, James WR, Kenworthy MD, Lesser J, Mallick D, Martin CW, McDonald AE, McLuckie C, Morrison BH, Nelson JA, Norris GS, Ollerhead J, Pahl JW, Ramsden S, Rehage JS, Reinhardt JF, Rezek RJ, Risse LM, Smith JAM, Sparks EL, Staver LW. Fisheries rely on threatened salt marshes. *Science*. 2020 Nov 6;370(6517):670-671. doi: 10.1126/science.abe9332.
- 128) Bowen, J. L., A. E. Giblin, A. E. Murphy<sup>P</sup>, A. N. Bulseco<sup>G</sup>, L. A. **Deegan**, D. S. Johnson, J. A. Nelson, T. J. Mozdzer, and H. L. Sullivan<sup>G</sup>. 2020. Not All Nitrogen Is Created Equal: Differential Effects of Nitrate and Ammonium Enrichment in Coastal Wetlands. *BioScience* 70:1108-1119.  
<https://doi.org/10.1093/biosci/biaa140>
- 127) <sup>G</sup>Lesser, J., <sup>U</sup>C. Bechtold, L.A. **Deegan**, and J.A. Nelson. 2020. Habitat decoupling via saltmarsh creek geomorphology alters connection between spatially-coupled food webs. *Estuarine, Coastal and Shelf Science*. Volume 241, 31 August 2020, 106825. <https://doi.org/10.1016/j.ecss.2020.106825>
- 126) Bortolus, A., P. Adam, J. B. Adams, M. L. Ainouche, D. Ayres, M. D. Bertness, T. J. Bouma, J. F. Bruno, I. Caçador, J. T. Carlton, J. M. Castillo, C. S.B. Costa, A. J. Davy, L. A. **Deegan**, B. Duarte, E. Figueroa, J. Gerwein, A. J. Gray, E. D. Grosholz, S. D. Hacker, A. R. Hughes, E. Mateos-Naranjo, I. A. Mendelssohn, J. T. Morris, A. F. Muñoz-Rodríguez, F. J.J. Nieva, L. A. Levin, B. Li, W. Liu, S. C. Pennings, A. Pickart, S. Redondo-Gómez, D. M. Richardson, A. Salmon, E. Schwindt, B. R. Silliman, E. E. Sotka, C. Stace, M. Sytsma, S. Temmerman, R. E. Turner, I. Valiela, M. P. Weinstein, J. S. Weis. 2019. Supporting *Spartina*: Interdisciplinary perspective shows *Spartina* as a distinct solid genus. *Ecology*. DOI:10.1002/ecy.2863
- 125) Paynter, I., C. Schaaf, J. L. Bowen, L. A. **Deegan**, F. Peri, and B. Cook. 2019. Characterizing a New England Saltmarsh with NASAG-LiHT Airborne Lidar. *Remote Sens*. 2019. Vol: 11, 509; doi:10.3390/rs11050509
- 124) Nelson<sup>P</sup>, J.A., D. S. Johnson, L. A. **Deegan**, A. C. Spivak, and N. R. Sommer<sup>U</sup>. 2019. Feedbacks Between Nutrient Enrichment and Geomorphology Alter Bottom-Up Control on Food Webs. *Ecosystems* <https://doi.org/10.1007/s10021-018-0265-x>
- 123) Kendrick<sup>G</sup>, M. R, A. D. Huryn, W. B. Bowden, L. A. **Deegan**, R. H. Findlay, A. E. Hershey, B. J. Peterson, J. Benes, and E. B. Schuett. 2018. "Linking Permafrost Thaw to Shifting Biogeochemistry and Food Web Resources in an Arctic River". *Global Change Biology*. doi:10.1111/gcb.14448. <http://doi.wiley.com/10.1111/gcb.14448>
- 122) Wigand, C., E. B. Watson, R. Martin, D. S. Johnson, R. S. Warren, A. Hanson, E. Davey, R. Johnson, and L. **Deegan**. 2018. Discontinuities in soil strength coupled with sea level rise contribute to destabilization of nutrient-enriched creeks. *Ecosphere*. Vol 9. <https://doi.org/10.1002/ecs2.2329>
- 121) Crosby<sup>G</sup>, S. C, A. Angermeyer<sup>G</sup>, J. M. Adler<sup>U</sup>, M. D. Bertness, L. A. **Deegan**, N. Sibinga<sup>U</sup>, H. M. Leslie. 2017. *Spartina alterniflora* biomass allocation and temperature: implications for salt marsh persistence with sea-level rise. *Estuaries and Coasts* 40(1): 213-223
- 120) Neill, C., K. Jankowski<sup>P</sup>, P. M. Brando, M. T. Coe, L. A. **Deegan**, M. N. Macedo, S. H. Riskin<sup>G</sup>, S. Porder, H. Elsenbeer and A. V. Krusche. 2017. Surprisingly modest water quality impacts from

- expansion and intensification of large-scale commercial agriculture in the Brazilian Amazon-Cerrado region. *Tropical Conservation Science*. 10:1-5. DOI: 10.1177/1940082917720669
- 119) Coe, M. T., P. Brando, L. **Deegan**, M. N. Macedo, C. Neill and D. Silvério. 2017. The forests of the Amazon and Cerrado moderate regional climate and are key to the future. *Tropical Conservation Science*. 10: 1-6. DOI: 10.1177/1940082917720671
- 118) Kearney, W. S., G. Mariotti, L.A. **Deegan** and S. Fagherazzi. 2017. Stage-discharge relationship in tidal channels. *Limnol. Oceanogr. Methods*. doi:10.1002/lom3.10168
- 117) Kearns<sup>Ⓒ</sup>, P., J. H. Angell<sup>Ⓒ</sup>, E. Howard<sup>Ⓒ</sup>, L. A. **Deegan**, R. H. Stanley, and J. L. Bowen. 2016. Nutrient enrichment induces dormancy and decreases diversity of active bacteria. *Nature Communications*. 26 Sept, 2016. DOI DOI: 10.1038/ncomms12881: 10.1038
- 116) Crosby<sup>Ⓒ</sup>, S. C., D. Sax, M. E. Palmer<sup>U</sup>, H. S. Booth<sup>U</sup>, L. A. **Deegan**, M. D. Bertness, H. M. Leslie. 2016. Salt marsh persistence is threatened by predicted sea-level rise. *Estuarine, Coastal and Shelf Science* 181: 93-99
- 115) Johnson<sup>P</sup>, D.S., R.S. Warren, L.A. **Deegan**, T. J. Mozdzer. 2016. Saltmarsh plant responses to coastal eutrophication. *Ecological Applications* 26(8): 2647–2659. doi: 10.1002/eap.1402
- 114) Moulton<sup>Ⓒ</sup>, O. M. , M. A. Altabet, J. M. Beman, L. A. **Deegan**, J. Lloret<sup>P</sup>, M. K. Lyons, J. A. Nelson, and C. A. Pfister. 2016. Microbial associations with macrobiota in coastal ecosystems: patterns and implications for nitrogen cycling. *Frontiers in Ecology and the Environment*. 14(4): 200-208.
- 113) Kennedy<sup>Ⓒ</sup>, C. G., M. E. Mather, J. M. Smith<sup>Ⓒ</sup>, J. T. Finn, L. A. **Deegan**. 2016. Discontinuities concentrate mobile predators: Quantifying organism-environment interactions at a seascape scale. *Ecosphere*. 7(2): Article e01226
- 112) Nelson<sup>P</sup>, J. A., L. A. **Deegan**, R. Garritt. 2015. Drivers of spatial and temporal variability in estuarine food webs. *Marine Ecology Progress Series* 533:67-77.
- 111) Crosby, S. C., M. Ivens-Duran, M. D. Bertness, E. Davey, L. A. **Deegan**, and H. M. Leslie. 2015. Flowering and biomass allocation in US Atlantic Coast *Spartina alterniflora*. *American Journal of Botany* 102: 669 – 676.
- 110) Cowan Jr, J. H., L. A. **Deegan**, and J. W. Day. 2014. Fisheries in a Changing Delta, pp. 99-109. In: J. W. Day, G. P. Kemp, A. M. Freeman, and D. P. Muth (eds.), *Perspectives on the Restoration of the Mississippi Delta*. Springer Netherlands.
- 109) Schmitz, O. J., P. A. Raymond, J. A. Estes, W. A. Kurz, G. W. Holtgrieve, M. E. Ritchie, D. E. Schindler, A. C. Spivak, R. W. Wilson, M. A. Bradford, V. Christensen, L. A. **Deegan**, V. Smetacek, M. J. Vanni, and C. C. Wilmers. 2014. Animating the carbon cycle. *Ecosystems* 17:344-359.
- 108) Bowden, W. B., B. J. Peterson, L. A. **Deegan**, A. D. Huryn, J. P. Benstead<sup>P</sup>, H. Golden<sup>Ⓒ</sup>, M. Kendrick<sup>Ⓒ</sup>, S. Parker<sup>Ⓒ</sup>, E. Shuett, J. Vallino, and J. E. Hobbie. 2014. Ecology of streams of the North Slope, Toolik Region, pp. 173-237. In: *A Warming Arctic: Ecological Consequences for Tundra, Streams and Lakes*. Oxford University Press. ISBN 978-0-19-986040-1.
- 107) Lockfield<sup>Ⓒ</sup>, K., J. W. Fleeger, and L. A. **Deegan**. 2013. Mummichog, *Fundulus heteroclitus*, responses to long-term, whole-ecosystem nutrient enrichment. *Marine Ecology Progress Series* 492:211-222.
- 106) Inouye, R., H. Gholz, M. Kane, S. Chandra, and L. A. **Deegan**. 2013. Outcomes of Co-Review in the National Science Foundation's Ecosystem Studies Program. *Bulletin of the Ecological Society of America* 94:165-169, <http://dx.doi.org/10.1890/0012-9623-94.2.165>
- 105) Neill, C., M. T. Coe, S. H. Riskin<sup>Ⓒ</sup>, A. V. Krusche, H. Elsenbeer, M. N. Macedo, R. McHorney, P. Lebeuvre, E. A. Davidson, R. Scheffler, M. Figueira, S. Porder and L. A. **Deegan**. 2013. Watershed responses to Amazon soybean cropland expansion and intensification. *Phil. Trans. R. Soc. B*. 2013 368 20120425, doi: 10.1098/rstb.2012.0425 (published online 22 April 2013).

- 104) Fagherazzi, S., D. M. FitzGerald, R. W. Fulweiler, Z. Hughes, P. L. Wiberg, K. J. McGlathery, J. T. Morris, T. J. Tolhurst, L. A. **Deegan**, and D. S. Johnson<sup>P</sup>. 2013. Ecogeomorphology of Salt Marshes, pp. 182-200. In: J. F. Shroder (ed.), *Treatise on Geomorphology*, Vol. 12, Academic Press, San Diego. ISBN 0080885225, 9780080885223.
- 103) Fagherazzi, S., D. M. FitzGerald, R. W. Fulweiler, Z. Hughes, P. L. Wiberg, K. J. McGlathery, J. T. Morris, T. J. Tolhurst, L. A. **Deegan**, D. S. Johnson<sup>P</sup>. 2013. Ecogeomorphology of Tidal Flats, pp. 201-220. In: J. F. Shroder (ed.), *Treatise on Geomorphology*, Vol. 12, Academic Press, San Diego. ISBN 0080885225, 9780080885223.
- 102) Mather, M. E., J. T. Finn, C. G. Kennedy, L. A. **Deegan**, and J. M. Smith. 2013. What happens in an estuary doesn't stay there: patterns of biotic connectivity resulting from long-term ecological research. *Oceanography* 26(3):168-179, <http://dx.doi.org/10.5670/oceanog.2013.60>.
- 101) Cowan Jr., J. H., A. Yanez-Arancibia, P. Sanchez-Gil, and L. A. **Deegan**. 2012. Estuarine Nekton, pp. 327-355. In: J. W. Day, Jr., W. M. Kemp, A. A. Yanez-Arancibia, and B. Crump (eds.), *Estuarine Ecology* (2<sup>nd</sup> Ed.). Wiley-Blackwell. 568 pp.
- 100) **Deegan**, L. A., C. Neill, R. L. Victoria, A. V. Krusche, M. V. R. Ballester, S. Thomas, and C. Hauptert. 2013. Using whole stream <sup>15</sup>N additions to streams understand the effects of land use change on stream function. Application of isotope techniques for assessing nutrient dynamics in river basins. International Atomic Energy Agency, Vienna, Austria. IAEA-TECDOC1695. ISBN: 978-92-0-138810-0. 235 pp.
- 99) Ballester, M. V. R., R. L. Victoria, A. V. Krusche, M. Bernardes, C. Neill, L. A. **Deegan**, and J. E. Richey. 2013. Physical and human controls on the carbon composition of organic matter in tropical rivers: an integrated analysis of landscape properties and river isotopic composition. Application of isotope techniques for assessing nutrient dynamics in river basins. International Atomic Energy Agency, Vienna, Austria. IAEA-TECDOC1695. ISBN: 978-92-0-138810-0. 235 pp.
- 98) **Deegan**, L. A., D. S. Johnson<sup>P</sup>, R. S. Warren, B. J. Peterson, J. W. Fleeger, S. Fagherazzi, and W. M. Wollheim. 2012. Coastal eutrophication as a driver of salt marsh loss. *Nature* 490:388-392.  
Highlighted in Nature | News & Views. 2012. S. Pennings. The Ecology: The big picture of marsh loss. 490:352-353. Recommended as a 'must read' in the Faculty of 1000.
- 97) Galván<sup>G</sup>, K., J. W. Fleeger, B. J. Peterson, D. Drake<sup>P</sup>, L. A. **Deegan**, and D. S. Johnson<sup>G</sup>. 2011. Natural abundance stable isotopes and dual isotope tracer additions help to resolve resources supporting a saltmarsh food web. *Journal of Experimental Marine Biology and Ecology* 410:1-11.
- 96) Bowen<sup>P</sup>, J. L., B. B. Ward, H. G. Morrison, J. E. Hobbie, I. Valiela, L. A. **Deegan**, and M. L. Sogin. 2011. Microbial community composition in sediments resists perturbation by nutrient enrichment. *International Society for Microbial Ecology* (ISME): 1-9.
- 95) Neill, C., J. Chaves<sup>P</sup>, T. Biggs<sup>G</sup>, E. A. Davidson, L. A. **Deegan**, H. Elsenbeer, R. Figueiredo, S. Germer, M. Johnson, J. Lehmann, D. Markewitz, and M. C. Piccolo. 2011. Runoff sources and land cover change in the Amazon: An end member mixing analysis from small watersheds. *Biogeochemistry* 105: 7-18.
- 94) **Deegan**, L. A., C. Neill, C. L. Hauptert, M. V. R. Ballester, A. V. Krusche, R. L. Victoria, S. M. Thomas, and E. de Moor<sup>U</sup>. 2011. Amazon deforestation alters small stream structure, nitrogen biogeochemistry and connectivity to larger rivers. *Biogeochemistry* 105:53-74.
- 93) Mather, M. E., J. T. Finn, S. M. Pautzke<sup>G</sup>, D. Fox, T. Savoy, H. M. Brundage III, L. A. **Deegan**, and R. M. Muth. 2010. Diversity in destinations, routes and timing of small adult and sub-adult striped bass *Morone saxatilis* on their southward autumn migration. *Journal of Fish Biology* 77:2326-2337.

- 92) Pautzke<sup>G</sup>, S. M., M. E. Mather, J. T. Finn, L. A. **Deegan**, and R. M. Muth. 2010. Seasonal use of a New England estuary by foraging contingents of migratory striped bass. *Transactions of the American Fisheries Society* 139:257-269.
- 91) Bowen<sup>P</sup>, J. L., B. C. Crump, L. A. **Deegan**, and J. E. Hobbie. 2009. Increased supply of ambient nitrogen has minimal effect on salt marsh bacterial production. *Limnology and Oceanography* 54(3):713-722.
- 90) Bowen<sup>P</sup>, J. L., B. C. Crump, L. A. **Deegan**, and J. E. Hobbie. 2009. Salt marsh sediment bacteria: their distribution and response to external nutrient inputs. *The ISME Journal* 3:924-934.
- 89) Drake<sup>P</sup>, D. C., B. J. Peterson, K. A. Galván<sup>G</sup>, L. A. **Deegan**, J. W. Fleeger, C. Hopkinson, J. M. Johnson, K. Koop-Jakobsen<sup>G</sup>, L. E. Lemay<sup>G</sup>, E. Miller<sup>G</sup>, C. Picard, and R. S. Warren. 2009. Salt marsh ecosystem biogeochemical responses to nutrient enrichment: A paired <sup>15</sup>N tracer study. *Ecology* 90(9):2535-2546.
- 88) Haas<sup>P</sup>, H. L., C. J. Freeman<sup>U</sup>, J. M. Logan, L. A. **Deegan**, and E. F. Gaines. 2009. Examining mummichog growth and movement: Are some individuals making intra-season migrations to optimize growth? *Journal of Experimental Marine Biology and Ecology* 369(1):8-16, doi: 10.1016/j.jembe.2008.09.027.
- 87) Johnson<sup>G</sup>, D. S., J. W. Fleeger, and L. A. **Deegan**. 2009. Large-scale manipulations reveal that top-down and bottom-up controls interact to alter habitat utilization by saltmarsh fauna. *Marine Ecology Progress Series* 377:33-41, doi: 10.3354/meps07849.
- 86) Mather, M. E., J. T. Finn, K. H. Ferry<sup>G</sup>, L. A. **Deegan**, and G. A. Nelson. 2009. Use of non-natal estuaries by migratory striped bass (*Morone saxatilis*) in summer. *Fishery Bulletin* 107:329-337.
- 85) Fry, B., M. Cieri<sup>P</sup>, J. Hughes<sup>P</sup>, C. Tobias<sup>P</sup>, L. A. **Deegan**, and B. Peterson. 2008. Stable isotope monitoring of benthic-pelagic coupling with salt marsh fish. *Marine Ecology Progress Series* 369:193-204.
- 84) Buchsbaum, R. N., L. A. **Deegan**, J. Horowitz<sup>U</sup>, R. H. Garritt, A. E. Giblin, J. P. Ludlam<sup>U</sup>, and D. Shull. 2008. Effects of regular salt marsh haying on marsh plants, algae, invertebrates and birds at Plum Island Sound, Massachusetts. *Wetlands Ecology and Management*, doi: 10.1007/s11273-008-9125-3.
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## SERVICE TO SCIENCE

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### Service to Scientific Societies

- COASTAL AND ESTUARINE RESEARCH FEDERATION
  - Co-Editor-in-Chief, *Estuaries and Coasts*, 2021 – present.
  - Scientific Co-Chair Biennial meeting, 2005 – 2007, Portsmouth, NH.
  - Program Committee, 2001 – 2003. Biennial meeting, Seattle, WA
  - Joint ECSA/ERF Conference. 1992. Organizer. “Importance of changing fluxes in estuaries to fisheries” Plymouth, England.
  - Awards Committee 2011, 2005– 2008, 2003.
  - Governing Board Member-at-large 1993 – 1995.
  - Governing Board 2000 – 2007.
  - *Estuaries*, Editorial Board 1987 – 1992.
  - Co-Editor of Special Issue on Florida Bay 2000.
  - Member 1976 – present.
- NEW ENGLAND ESTUARINE RESEARCH SOCIETY
  - Member 1977 – present
  - President 2000 – 2002, President-Elect 1998 – 2000.
  - Executive Committee 1988 – 1989.
  - Session Chair, Sixth Biennial LIS/NEERS Research Conference, 2002, University of Connecticut,
  - Organized the fall meeting, 1993 Falmouth, MA; 1988 Holyoke, MA.
  - Organized joint meeting 1992. New England Estuarine Research Society and the Southern New England Chapter of the American Fisheries Society in Bridgeport, CT.
- AMERICAN FISHERIES SOCIETY
  - Member 1976 – present.
  - National Strategy Planning Committee 1993 – 1994.
  - 1986-1988. Marine Fisheries Newsletter, Northeastern Correspondent.
  - 1988. American Fisheries Society, National Meeting, Fundraising. Providence, Rhode Island.
- SOUTHERN NEW ENGLAND CHAPTER, AMERICAN FISHERIES SOCIETY
  - Member 1985 – present.
  - President 1988 – 1989.
  - President-elect 1987– 1988.
  - Secretary-Treasurer 1986 – 1987.
  - 1992 Organized joint meeting of the New England Estuarine Research Society and the Southern New England Chapter of the American Fisheries Society in Bridgeport, CT.
  - 1986-1987. Organized two chapter meetings of Southern New England Chapter of the American Fisheries Society, approximately 60-80 participants at each meeting.
- ECOLOGICAL SOCIETY OF AMERICA
  - Member 1979 – present,
  - Buell Award Finalist. 1984. Best Graduate Student Presentation, ESA Meeting.
  - Subject Matter Editor, *Ecological Applications* 2002 – 2009.
- ARCTIC RESEARCH CONSORTIUM OF THE UNITED STATES
  - Chair, Award Committee, Award for Arctic Research Excellence (1998, 2000).
- AMERICAN INSTITUTE OF FISHERIES RESEARCH BIOLOGISTS
  - Award Committee, Best Student Paper Award, Thompson Award Committee (1999, 2001).

### Service to National Science Agencies

- Reviewed proposals for and served on panels for National Science Foundation (multiple programs), NOAA (multiple programs), Environmental Protection Agency (multiple programs), Sea Grant (multiple states), NASA, Dept. of Energy, Dept. of Interior, USDA.
- National Science Foundation. 2012 – 2015.
  - Program Director, NSF, Division of Environmental Biology, Ecosystems Program
  - Program Director, Advisory Committee for Environmental Research and Education. External Advisory Board charged with providing advice, recommendations and oversight concerning support for the NSF's environmental research and education portfolio to the NSF Director.
- NOAA Science Advisory Board. 2014 – 2017.
  - The Ecosystem Sciences and Management Working Group provided scientific advice and broad direction to the NOAA Science Advisory Board regarding NOAA's ecosystem related programs, in the context of national and international activities. Working Group focused on the broad research, monitoring, and management components of NOAA's ecosystem portfolio, as well as on the underlying observations and data management issues. The Working Group is comprised of 10 outstanding scientists and leaders with a broad interest in NOAA's ecosystem related activities.
- Louisiana Coastal Protection and Restoration Authority, Advisor. 2014 – 2017.
  - The panel is comprised of 12 internationally recognized experts in coastal wetlands.
  - Nominated by two federal agencies and selected to serve on an Expert Panel providing technical input, review, and guidance to the CPRA as it refines the \$20B plan for diverting freshwater and sediment from the Mississippi and Atchafalaya Rivers into adjacent estuarine basins to build, maintain and sustain coastal wetlands.
- The Institute for Research and Technology in Food and Agriculture (IRTA), Spain.
  - Three international scientists conducted external review of the Aquatic Ecosystem Program of the Centre of Sant Carles de la Rapita Marine Station.
  - Committee Chair, 2015. Member 2010.
- National Research Council, Ocean Studies Board. 2000 – 2001.
  - Committee of the effects of trawling on seafloor habitats. Reviewed literature, held public forums on the effects of trawling around the country, and produced a book summarizing the state-of-knowledge and suggestions for further work.
- Waquoit Bay National Estuarine Research Reserve
  - Scientific Advisory Board, 1985 – 1989.
  - Scientific Advisory Board, 2017 – present.
- Louisiana Science and Engineering Special Team (SEST), member. 2010 – 2012.
  - Required to resign this position when I was selected to serve at NSF.
  - Team addresses issues related to the restoration of the Mississippi River delta in the Gulf of Mexico. The members of the Science and Engineering Special Team (SEST) have been drawn from academic and non-governmental organization around the United States and the world (e.g., MBL, WHOI, EarthEconomics, Delft University) and represent diverse disciplines (e.g., ecology, engineering, economics) to advise non-governmental organizations, especially Environmental Defense Fund, National Audubon Society, and National Wildlife Federation, on issues underlying the development of a restoration plan and other emergent issues, such as the Deepwater Horizon oil spill.
- ICES Study Group on Designing Marine Protected Area Networks in a Changing Climate. 2010 – 2011. Invited Member.

- NASA Large-Scale Biosphere-Atmosphere (LBA) Experiment in Amazônia.
  - Science team, member, workshop leader, 2000-2009.
- Program Director and Steering Committee Chair, 2009 – 2012. Comparative Analysis of Marine Ecosystem Organization, Joint NSF/NOAA Program. Over saw selection and awarding of grants.
- Florida Bay Research Program Scientific Oversight Panel, NOAA. 1995 – 1999.
- Buzzards Bay Estuaries Project, Environmental Protection Agency, Scientific Advisory Board. 1990 – 1998. Meets several times a year to review proposals, evaluate research and monitoring.
- Plum Island Sound Minibays Project Technical Advisory Committee. Massachusetts Audubon Society. 1992-1996. Meets quarterly to review progress on research.
- Pilgrim Power Plant Technical Advisory Committee, Massachusetts Division of Water Pollution Control. 1985-1989. Meets three times a year to advise on research and monitoring plans for power plant impact on fisheries.

**Service to Local Government, Non-Governmental Organizations (NGOs)**

- The Nature Conservancy, Massachusetts Board of Directors. 2011– 2019.
  - Advised TNC on public outreach, conservation and research programs.
- Coonamessett River Trust. 2000 – present.
  - NGO dedicated to restoring the Coonamessett River, Cape Cod. Founding Member.
  - Helped write grants awarded for approximately \$5 million dollars to restore the river (multiple funding agencies including NOAA, State, Town, USDA, multiple foundations).
  - Lead environmental monitoring program for fish (sea-run brook trout and river herring) and water quality monitoring.
- Massachusetts Ecosystem Climate Adaptation Network. 2019 – present
  - Founding member, Salt Marsh Working Group
  - Salt Marsh Working Group Nutrients Subgroup. 2021 – present.
- Falmouth Conservation Commission. 2005 – 2011.
  - Wetland Regulatory and Permitting Committee for Town of Falmouth and Massachusetts. Monthly 4-hour meetings and weekly site visits (10 hrs. per week) to determine proposed project compliance to Town and State wetland protection regulations. Helped re-write regulations to better protect wetlands based on recent scientific information.
- Massachusetts Audubon Society. 1995 – 2007.
  - Scientific Advisory Committee
- Marine Biological Laboratory Corporation
  - member 1991 – present.
  - Chair, MBL Forum of Year-Round Scientists, 1996-97
  - MBL Science Council, elected to represent year-round scientists. 2009-2012.
- Woodwell Climate Research Center, member, 2010 – present.
- University of Massachusetts. 1985 – 1989.
  - Department of Natural Resource Conservation and Management:
  - Curriculum Committee, Chairperson 1985-1988, Member 1985.
  - Recruitment Committee, Member, 1985-1987.
  - Awards Committee, 1986-1987.
  - Banquet Committee, 1987.
  - College of Food and Natural Resources:
  - Curriculum Committee, Chairperson, 1987-1988, Member 1986-1987.

- Biotechnology Working Group, Chairperson.
- Initiated Wetland Ecosystem Research Group, Chairperson, 1987-1989. Held organizational meeting, developed and distributed research interest questionnaire, developed brochure.
- Marine and Coastal Sciences Program, 1988. Steering Committee, Member 1986-1989

**RESEARCH FUNDING**

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- 66) National Science Foundation, SCC-PG: Connecting communities with real-time data collection and downscaled climate risk models to improve water quality and sustain salt marshes in the Buzzards Bay Watershed. C. Neill, A. Milman, R. Jakuba, M. Jakuba, L. Deegan. 9/1/2023- 8/30/27. \$1,974,185
- 65) Department of Interior, Northeast Climate Adaptation Science Center. Mapping Salt Marsh Response to Sea level Rise to Aid Wildlife Habitat Management in New England. 3/1/2021 – 7/31/2024. \$382,930.
- 64) EPA Southern New England Partnership. Evaluating Management Actions to Promote Salt Marsh Resilience. Buzzards Bay Coalition, Woodwell Climate Research Center. 11/1/2019 – 12/31/2021. \$296,261.
- 63) Dorr Foundation. Support for educational programs and herring tagging in Coonamessett River restoration. L. Deegan. 10/1/2020 – 12/31/2021. \$20,000.
- 62) Fund for Climate Solutions, Woodwell Climate Research Center. Establishment of a long-term restoration research site at the Hubacheck bogs. C. Neill, L. A. Deegan. 9/1/2020 – 12/31/2022. \$93,000.
- 61) Department of Interior, Northeast Climate Adaptation Science Center. River habitat restoration, anadromous fish restoration and adaption to climate in coastal rivers. 10/1/2021 – 7/31/2024. DOI G12AC00001. Woodwell: \$159,170.
- 60) National Science Foundation. INFEWS: Intensification in the world's largest agricultural frontier: Integrating food production, water use, energy demand, and environmental integrity in a changing climate. M. T. Coe, P. Brando, M. N. Macedo, C. Neill, V. Kotamarthi, L. Deegan and G. Bush. 8/15/2017 – 7/31/2021. EAR 1739724. \$2,430,984.
- 59) National Science Foundation. TIDE IV: Legacy effects of long-term nutrient enrichment on recovery of saltmarsh ecosystems. 5/1/2019 – 4/31/2022. L. Deegan, D.S. Johnson (VIMS), A. Giblin (MBL), J. Nelson (U. Louisiana, Lafayette), J. Bowen (Northeastern U.), T. Mozdzer (Bryn Mawr College). NSF DEB 1902712. \$1,590,061.
- 58) National Science Foundation. Plum Island Ecosystems LTER. A. Giblin, L. Deegan, J. Vallino. 10/1/16-9/30/2022. NSF DEB 1637630. \$6,761,476.
- 57) Department of Interior, Northeast Climate Science Center. 10/1/2012 – 7/31/2019. DOI G12AC00001. L. Deegan. \$528,729.
- 56) National Science Foundation. Collaborative Research: The Sustainability of Riparian Forests in Expanding Amazonian Agricultural Landscapes. C. Neill, L. Deegan. 1/1/2015-5/1/2019. NSF DEB-1660034/1457662. \$760,312.
- 55) National Science Foundation. Collaborative Research: Adaptability of a key Arctic freshwater species to climate change. L. Deegan. 1/1/2015-1/1/2019. NSF DPP - 1417664 \$1,500,00.
- 54) National Science Foundation. TIDE III: Ecosystem Evolution and Sustainability of Nutrient Enriched Coastal Saltmarshes. L. Deegan, D. Johnson, B. Peterson, A. Giblin. 4/1/2014-4/1/2019. NSF DEB – 1719621/1354494 \$1,651,140.
- 53) National Science Foundation, Belmont Forum and G8 Research Councils Initiative on Multilateral Research Funding: Integrating land use planning and water governance in Amazonia: towards improved freshwater security in the agricultural frontier of Mato Grosso. C. Neill, L. Deegan. 3/15/2014-3/15/2018. NSF-ICER-1342953. \$602,639.
- 52) National Science Foundation. Plum Island Ecosystems LTER. A. Giblin, L. Deegan, J. Vallino, C. Neill. 10/1/12-9/30/17. NSF OCE-1238212. \$3,920,000.



- 51) National Science Foundation. Plum Island Ecosystems LTER. A. Giblin, L. Deegan, J. Vallino, C. Neill. 10/1/10-9/30/12. \$1,880,000.
- 50) National Oceanic and Atmospheric Administration. Comparative Analysis of Marine Ecosystem Organization (CAMEO): Program Office Support and Steering Committee Meetings. L. Deegan. 1/1/10-12/31/12. \$347,121.
- 49) National Science Foundation. Comparative Analysis of Marine Ecosystem Organization (CAMEO): Program Office Support and Steering Committee Workshop. L. Deegan. 10/1/09-9/30/11. \$55,095.
- 48) National Science Foundation. Collaborative Research: ETBC: Feedbacks Between Nutrients Enrichment and Intertidal Substrates: Erosion, Stabilization, and Landscape Evolution. S. Fagherazzi, L. Deegan. 9/1/09-8/31/13. \$469,074.
- 47) National Science Foundation. Collaborative Research: Shifting Seasonality of Arctic River Hydrology Alters Key Biotic Linkages among Aquatic Systems. L. Deegan, B. Peterson. 7/1/09-6/30/13 (MBL portion). \$1,624,956.
- 46) National Science Foundation. TIDE II: Collaborative Research: Interacting Controls on Ecosystem Function: Nutrient State and Omnivory in Salt Marsh Ecosystems. L. Deegan (Lead PI), B. Peterson. 10/1/08-9/30/12. \$1,159,500.
- 45) National Science Foundation. Plum Island Ecosystems LTER. A. Giblin, L. Deegan, J. Hobbie, B. Peterson, J. Vallino. 8/1/04-7/31/11. \$5,738,544.
- 44) National Oceanic and Atmospheric Administration. Career 2004: Integrated Training in Coastal Science and Management. L. Deegan. 7/1/04-6/30/07. \$48,270.
- 43) National Science Foundation. FSML: Planning Proposal for Plum Island Coastal Research Facility. L. Deegan. 1/5/04-12/31/06. \$25,000.
- 42) National Aeronautics and Space Administration. Quantifying and Scaling Land-Water Connections and River-Channel Biogeochemistry in Amazon River Networks. L. A. Deegan, C. Neill, R. Victoria, A. Krusche, V. Ballester. 01/01/06-12/31/07. \$210,000.
- 41) National Oceanic and Atmospheric Administration. Career 2004: Integrated Training in Coastal Science and Management. L. A. Deegan. 7/1/04-3/31/05. \$23,715.
- 40) National Aeronautics and Space Administration. Key connections in Amazonian stream corridors. L. A. Deegan, C. Neill, R. Victoria, A. Krusche, V. Ballester. 9/1/02-9/4/05. \$87,1632.
- 39) National Science Foundation. TIDE I: Trophic cascades and interacting control processes in a detritus-based aquatic ecosystem. L. A. Deegan, J. Hobbie, C. Hopkinson, B. Peterson, J. Vallino, S. Warren, J. Fleeger, C. Friedrichs. 10/1/02-9/30/06. \$2,700,000...
- 38) National Science Foundation. Aquatic ecosystem responses to changes in the environment of an Arctic drainage basin. J. Hobbie, B. J. Peterson, L. A. Deegan, A. Giblin, J. Vallino. 6/20/00-2/28/05. \$3,999,991.
- 37) A.W. Mellon. The fate of nitrogen deposited on forest ecosystems: a comparative study using repeated <sup>15</sup>N tracer additions. Ecosystem Center PIs. 9/28/99-12/31/02. \$900,000.
- 36) National Oceanic and Atmospheric Administration, Office of Protected Habitats. Biodiversity in coastal marine ecosystems: evaluation of biodiversity in submerged aquatic vegetation habitats. L. A. Deegan. 4/99-5/00. NOAA/NMFS-40AANF803410. \$24,500.
- 35) National Science Foundation. Ecosystem controls on the biogeochemical processing of watershed-derived nitrogen in tidal rivers. B. J. Peterson, L. A. Deegan, J. Vallino. 3/1/99-2/28/02. \$813,000.
- 34) National Science Foundation. LTER Plum Island Sound Comparative Ecosystem Study (PISCES): Effects of changing land cover, climate and sea level on estuarine trophic dynamics. C. Hopkinson, L. A. Deegan, A. Giblin, J. Hobbie, B. J. Peterson, J. Vallino.

- 7/1/98-6/30/04. NSF-OCE-9726921. \$3,789,998.
- 33) National Aeronautics and Space Administration. Linking soil biogeochemistry to surface water chemistry in small drainage basins of the Amazon. L. A. Deegan, C. Neill. 7/1/98-12/31/02. \$603,267.
  - 32) National Science Foundation. Key connections in Arctic aquatic landscapes. J. Hobbie, L. A. Deegan, A. Giblin, B. Peterson. 5/1/97-6/30/02. NSF-OPP-9615949. \$2,989,784.
  - 31) National Oceanic and Atmospheric Administration, Saltonstall-Kennedy Funds. Establishing the food web links between estuaries and near shore fisheries in New England. L. A. Deegan, E. Boynton. 4/97-3/99. NOAA NA 76FD106. \$94,000.
  - 30) Environmental Protection Agency, Water and Watersheds Program. Social and ecological transferability of integrated ecological assessment models. L. A. Deegan, J. Kremer, T. Webler. 10/97-9/2001. CR-825757-01-0. \$851,000.
  - 29) A. W. Mellon Foundation. Scaling of land-atmosphere and land-water linkages: a whole ecosystem approach. Ecosystem Center Pls. 6/96-5/99. \$750,000.
  - 28) National Science Foundation. Field station and marine laboratory program (FSML): ecosystems research equipment for the Marine Biological Laboratory. J. Burris, L. A. Deegan, B. J. Peterson. 9/96-9/99. NSF-BIR-9602540.
  - 27) National Science Foundation. Links between soil nutrient and surface water biogeochemistry following deforestation for pasture agriculture in Amazonia. L. A. Deegan, C. Neill. 9/96-8/98. NSF-EAR-9630278. \$290,000.
  - 26) Environmental Protection Agency. Tracing the fate of nitrogen inputs from watersheds to estuaries. L. A. Deegan, B.J. Peterson, B. Fry. 1/96-12/97. EPA CR-824767-01-0. \$232,323.
  - 25) National Science Foundation. Research experience for undergraduates in coastal bays of New England. With I. Valiela, A. E. Giblin, L. A. Deegan, C. Rietsma, C. D'Avanzo. 1996-1997. \$300,000.
  - 24) National Science Foundation. Controls of Structure and function of aquatic ecosystems in the Arctic. With J. E. Hobbie, B. J. Peterson, L. A. Deegan, E. Rastetter. 6/94-5/97. NSF-OPP-9400722. \$2,726,000.
  - 23) Environmental Protection Agency. Testing the Estuarine Biotic Integrity Index across biogeographic regions. L. A. Deegan, R. Smolowicz, J. Bounacorsi. 10/94-9/97. CR-823606-01-0. \$406,557.
  - 22) National Science Foundation. Plum Island Sound comparative ecosystem study (PISCES): Effects of land use and organic matter-nutrient interactions on estuarine trophic dynamics. With C. Hopkinson, L. A. Deegan, A. Giblin, J. Hobbie, J. Finn. 10/92-2/97. NSF-OCE-9214461. \$2,000,000.
  - 21) National Science Foundation, Division of Polar Programs. The Arctic LTER project: Terrestrial and freshwater research on ecological controls. With J. E. Hobbie, B. J. Peterson, W. B. Bowden, L. A. Deegan, A. Hershey, G. Kipphut, M. McDonald, M. Miller, W. J. O'Brien. \$3,907,500
  - 20) The Cox Foundation. Managing coastal ecosystems: understanding the link between upland management and fisheries declines. L. A. Deegan. 4/94-3/96. \$75,000.
  - 19) National Oceanic and Atmospheric Administration, Estuarine Reserve Program. Effect of macroalgae manipulation on the fish community in an eelgrass habitat. L. A. Deegan., J. Finn, S. G. Ayvazian. 7/92-6/93. \$49,962.
  - 18) National Science Foundation. Freshwater systems. With J. E. Hobbie, B. J. Peterson, W. B. Bowden, L. A. Deegan, A. Hershey, G. Kipphut, M. McDonald, M. Miller, W. J. O'Brien. 8/91-1/96. \$2,631,117
  - 17) National Science Foundation. Development of automated instrumentation for the

- measurement of dissolved organic nitrogen in seawater, freshwater and soil solutions. B. J. Peterson, L. A. Deegan, J. E. Hobbie, C. S. Hopkinson. 5/91-4/92. \$118,046.
- 16) National Oceanic and Atmospheric Administration, Estuarine Programs Office. Effects of macroalgae on fish production in Waquoit Bay. L. A. Deegan, J. T. Finn. 4/90-4/91. \$39,999.
  - 15) Massachusetts Division of Marine Fisheries. Determinants of commercial and recreational fish nursery areas in Waquoit Bay. L. A. Deegan. 7/89-6/90. \$15,000.
  - 14) Massachusetts Department of Environmental Quality Engineering, Division of Water Pollution Control. Application of the index of biotic integrity to Massachusetts estuaries. L. A. Deegan, J. Finn. 2/88-9/91. \$116,732.
  - 13) National Science Foundation, Division of Polar Programs. Changes in arctic freshwaters. With J. E. Hobbie, B. J. Peterson, B. Bowden, L. A. Deegan, A. Hershey, G. Kipphut, M. McDonald, M. Miller, W. J. O'Brien. 3/88-3/91. \$1,430,225.
  - 12) National Oceanic and Atmospheric Administration, Estuarine Programs Office. Are critical habitats determined by life-history strategies or habitat availability? (Waquoit Bay, MA and Wells, ME). With J. Finn. 4/88-4/90. \$60,500.
  - 11) National Oceanic and Atmospheric Administration, Estuarine Programs Office. Comparison of young-of-the-year nekton growth and survivorship in seagrass beds and marshes. (Waquoit Bay, MA). L. A. Deegan, J. T. Finn. 4/88-4/90. \$61,500.
  - 10) National Science Foundation. An LTER program for the Arctic. With J. E. Hobbie, B. J. Peterson, W. B. Bowden, L. A. Deegan, A. Hershey, G. Kipphut, M. McDonald, M. Miller, W. J. O'Brien. 9/87-8/92. \$2,250,000
  - 9) National Science Foundation, Division of Polar Programs. Continuation of the Kugaruk river and Toolik Lake fertilization experiments. J. E. Hobbie, B. J. Peterson, W. B. Bowden, L. A. Deegan, A. Hershey, G. Kipphut, M. McDonald, M. Miller, W. J. O'Bein. 6/87-8/87. \$100,000.
  - 8) National Sea Grant Program, Woods Hole Oceanographic Institution. Growth dynamics of the Iceland scallop. L. A. Deegan, F. Serchuck (NMFS, Woods Hole). 6/87-6/89. \$30,700.
  - 7) National Geographic Society. Ecological limits on arctic grayling growth and reproduction. L. A. Deegan, B. J. Peterson. 6/87-5/89. \$20,000.
  - 6) National Science Foundation, College Science Instrumentation Program. An equipment package for a Five College Marine Sciences Program. P. Peckol, L. A. Deegan, C. D'Avanzo, J. Reid, M. Leicke. 5/87-5/89. \$63,200.
  - 5) Massachusetts Department of Environmental Quality Engineering, Division of Water Pollution Control. An evaluation of remote sensing data for use in watershed land use and water quality investigation. J. T. Finn, L. A. Deegan. 6/87-12/88. \$49,165.
  - 4) Massachusetts Division of Marine Fisheries. Growth and production of winter flounder in Waquoit Bay, MA. L. A. Deegan. 9/86-6/89. \$22,500.
  - 3) Coastal Fisheries Institute, Louisiana State University. Age, growth and survivorship of age0 gulf menhaden. L. A. Deegan. 1/84-6/85. \$15,500.
  - 2) Department of Marine Sciences, Louisiana State University. Population ecology of gulf menhaden. L. A. Deegan. 1983. \$1,500.
  - 1) Sigma Xi National Grant. Population ecology of gulf menhaden. L. A. Deegan. 1982. \$750.

## SYNERGISTIC ACTIVITIES

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- I have mentored 13 Postdoctoral Fellows, 19 graduate students (primary and committee member) and approximately 50 undergraduates on research projects (including honor's theses at 8 institutions).
- I have participated in non-traditional education such as director and participant in the Science for Journalists courses (MBL and Woodwell Center), interviews with NPR (several radio programs, including Science Friday), CBC (Quirks and Quarks), Yale 360, organized BioDiversity Blitz Days for the Town of Falmouth, the development of four videos on environmental issues that have been broadcast on local TV stations, and outreach programs such as "Women in Science" sponsored by the New England Aquarium and developed a web site for the public (Changing Land-use and Estuaries) describing historical land-use change and the effects on estuarine ecosystems and a web site describing the effects of excess nutrients on salt marshes (<http://thetideproject.org/>).
- I am on or have served on several state and local advisory boards including the Town of Falmouth Conservation Commission, Massachusetts Audubon Society, Waquoit Bay National Estuarine Research Reserve, the EPA Buzzards Bay Program, and the Coonamessett River Restoration Trust.

## CONFERENCE, WORKSHOP, SEMINAR PRESENTATIONS (ONLY SINCE 2005)

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- 2021 Besterman<sup>P</sup>, A., R.W. Jakuba, **L.A. Deegan**, W. Feruson, D. Brennan, J. Costa, H.L. Sullivan, and N.K. Ganju. "Runnelling" Toward climate adaptation: assessing a hydrologic management strategy for salt marshes. New England Estuarine Research Society (NEERS) Spring Meeting.
- Shaw<sup>UG</sup>, S., M.K. McCormick, L. Deegan, and T.J. Mozdzer. Nutrient enrichment lowers genetic diversity altering coastal marsh stability. New England Estuarine Research Society (NEERS) Spring Meeting.
- Lesser<sup>G</sup>, J.S., R.H. Garritt, L.A. Deegan and J.A. Nelson. Understanding the impact of environmental setting on temporal and spatial trophic niche variability in Plum Island Estuary, MA. New England Estuarine Research Society (NEERS) Spring Meeting.
- 2020 Sullivan, H.L., **L.A. Deegan**, J.A. Nelson, and J. Bowen. Determining the fate of anthropogenic nitrogen in saltmarshes using a large-scale <sup>15</sup>N isotope tracer experiment. Restore America's Estuaries, National Coastal and Estuarine Virtual Summit. (poster)
- 2019 Sullivan, H., L.A. **Deegan**, A. Giblin, J. Bowen Determining the fate of anthropogenic nitrogen in saltmarshes using a large-scale <sup>15</sup>N isotope tracer experiment. November 2019. Coastal and Estuarine Research Federation.
- Mozdzer, T., S. Drew, P. Weber, B. Reed, J. Caplan, L.A. **Deegan**. Recovery of carbon cycle processes after the cessation of chronic nutrient enrichment. November 2019. Coastal and Estuarine Research Federation.
- Lesser, J. C. Bechtold, L.A. **Deegan**, J. Nelson. Habitat decoupling via altered saltmarsh creek geomorphology decreases mummichog terrestrial subsidy to aquatic food webs. November 2019. Coastal and Estuarine Research Federation.
- 2018 Miller, H.M., H.L. Sullivan, and **L.A. Deegan**. Quantifying nitrification and ammonification from sites in a northern Massachusetts salt marsh. New England Estuarine Research Society (NEERS) Spring Meeting. New Bedford, MA. (oral)
- Sullivan, H.L., A.E. Giblin, and **L.A. Deegan**. Whole-system salt marsh <sup>15</sup>N tracer study. New England Estuarine Research Society (NEERS) Spring Meeting. Portsmouth, NH. (oral)

- Sullivan, H.L., A.E. Giblin, and **L.A. Deegan**. Whole-system salt marsh <sup>15</sup>N tracer study. Plum Island Estuary LTER All Scientists Meeting. Woods Hole, MA. (poster)
- 2017 Sullivan, H.L., A.E. Giblin, and **L.A. Deegan**. Whole-system salt marsh <sup>15</sup>N tracer study. Coastal Estuarine and Research Federation (CERF) Biennial Meeting. Providence, RI.
- Wigand, C. E. Watson, R. Martin, E. Davey, R. Johnson, A. Hanson, David Johnson, R. S. Warren and L. A. **Deegan**. Marsh soil responses to tidal water nitrogen additions contribute to creek bank fracturing and slumping. Coastal Estuarine and Research Federation (CERF) Biennial Meeting. Providence, RI. (oral)
- Behringer, D. L. A. **Deegan** and J. Nelson. Effects of nutrient enrichment on a consumer's resource use and niche width in a saltmarsh. Estuarine and Research Federation (CERF) Biennial Meeting. Providence, RI.
- Bauer, C. M. McCormick, L. A. **Deegan**, J. A. Langley and T. Mozdzer. Interacting effects of genotype and environment on tall form *Spartina alterniflora*. Estuarine and Research Federation (CERF) Biennial Meeting. Providence, RI.
- David Johnson, D.S., J. Fleeger, K. Galvan, J. Nelson and L. A. **Deegan**. Vegetarian shrimp become carnivores when large fish leave town. Estuarine and Research Federation (CERF) Biennial Meeting. Providence, RI.
- 2015 Diaz Cabrera, V., K. Jankowski, C. Neill, M. Macedo, L. A. **Deegan** and P. M Brando. Agricultural Intensification in the Amazon: Tracking Nitrogen Fertilizer from Soy-Maize Double Cropping to Streams. Dec. AGU Meeting, San Francisco.
- Deegan**, L.A., J. Nelson; D. S. Johnson. Eutrophication induced habitat change overrides bottom-up stimulation of nekton secondary productivity. Coastal & Estuarine Research Federation 23rd Biennial Conference, 8-12 November, Portland, OR.
- Bauer, C., F. Leech, E. Johnson, A. Tasnim, L. **Deegan**, R.S. Warren, J. Caplan & T.J. Mozdzer. Effects of nitrogen enrichment on plant functional traits and phenology in smooth cordgrass, *Spartina alterniflora*. Coastal & Estuarine Research Federation 23rd Biennial Conference, 8-12 November, Portland, OR.
- Thomas Mozdzer, M. McCormick, C. Bauer, J. Bowen, L. A. **Deegan**. Long-term nitrogen fertilization reduces *Spartina alterniflora* genetic diversity altering ecosystem stability. Coastal & Estuarine Research Federation 23rd Biennial Conference, 8-12 November, Portland, OR.
- 2014 **Deegan**, L. A., J. Nelson, D. S. Johnson, B. J. Peterson. 2014. Chronic nutrient press differentially alters saltmarsh ecosystem functions. (**Invited**). Session 121 - Does Nutrient Pollution Jeopardize Tidal Wetland Viability? A Controversy Revisited. 2014 Joint Aquatic Sciences Meeting, Portland, Oregon. Bridging Genes to Ecosystems: Aquatic Science in times of rapid change. May, 2014.
- Logan, J. M., S. Voss, K. Ford, L. **Deegan**. 2014. Shading impacts of small docks and piers on saltmarsh vegetation. New England Estuarine Research Society (NEERS). April 2014, Salem, MA.
- Bauer, C. E. J., S. Caplan, J. A. Nelson, L. A. Deegan, T. J. Mozdzer. 2014. Effects of nitrogen fertilization on *Spartina alterniflora* growth. March, 2014. Atlantic Estuarine Research Society. Ocean City, MD.
- 2013 Corman, S. S., M. Ivens-Duran, M. D. Bertness, E. Davey, L. A. **Deegan**, H. M. Leslie. 2013. Flowering and biomass allocation in the saltmarsh foundation species, *Spartina alterniflora*. 22<sup>nd</sup> Biennial Conference of the Coastal and Estuarine Research Federation. Toward Resilient Coasts and Estuaries, Science for Sustainable Solutions. 3-7 November 2013. San Diego, CA.
- Johnson, D. S., L. A. **Deegan**, S. Warren, B. Peterson, J. Fleeger, S. Fagherazzi, W. Wollheim. 2013. (**Invited**). Coastal eutrophication as a driver of saltmarsh ecosystem services loss. 22<sup>nd</sup> Biennial

- Conference of the Coastal and Estuarine Research Federation. Toward Resilient Coasts and Estuaries, Science for Sustainable Solutions. 3-7 November 2013. San Diego, CA.
- 2012 Short, M. I., D. S. Johnson, L. A. **Deegan**. Nutrient effects on *Spartina patens* decomposition dynamics in a New England Salt marsh. New England Estuarine Research Society (NEERS) conference. April 2012, Plymouth, MA.
- 2011 **Deegan**, L. A., C. MacKenzie, B. J. Peterson. Changing seasonality of Arctic hydrology disrupts key biotic linkages in Arctic aquatic ecosystems. (*Invited*), Session: Multitrophic Level Responses to Climate Change in the Arctic Tundra Ecosystem. Fall 2011 AGU Meeting, San Francisco.
- Ballester, M. A. R., A. V. Krusche, R. L. Victoria, J. E. Richey, L. Deegan, C. Neill. The role of physical and human landscape properties on carbon composition of organic matter in tropical rivers. Session: From Land to Sea: Using Riverine Organic Matter as an Integrated Signal of Basin-Scale Processes, Climate, and Land-Use Change I Fall 2011 AGU Meeting, San Francisco.
- Kendrick, M., A. Huryn, L. **Deegan**. Seasonality of primary and secondary production in an Arctic river. Session: Multi-trophic Level Responses to Climate Change in the Arctic Tundra Ecosystem. December 2011 AGU Meeting, San Francisco.
- Kendrick, E. O., L. **Deegan**. Arctic research in the classroom: A teacher's experiences translated into data driven lesson plans. Session: Teacher Professional Development Programs Promoting Authentic Scientific Research in the Classroom. Fall 2011 AGU Meeting, San Francisco.
- Johnson, D., M. Short, A. Mui, L. **Deegan**. Nutrient enrichment and detritivores increase *Spartina patens* litter decomposition. Session: Wetland structure and function. Coastal and Estuarine Research Federation. Societies, Estuaries, and Coasts: Adapting to change. Daytona, FL.
- Deegan**, L. (*Invited*), B. Peterson, D. Johnson, R. S. Warren, J. Fleeger, S. Fagherazzi. Chronic coastal nutrient enrichment causes saltmarsh loss by vegetated creek-bank failure. Session: Drivers of change in shallow coastal photic systems. 21<sup>st</sup> Annual meeting Coastal and Estuarine Research Federation. Societies, Estuaries, and Coasts: Adapting to change. Daytona, FL.
- Warren, R. S., D. Johnson, L. **Deegan**. Salt marsh plants and chronic eutrophication: vegetation, growth responses and N removal in a New England estuary. Session: Human Impacts on the Health and Survival of Tidal Ecosystems. 21<sup>st</sup> Annual meeting Coastal and Estuarine Research Federation. Societies, Estuaries, and Coasts: Adapting to change. Daytona, FL.
- Vieillard, A., R. Fulweiler, J. Carey, Z. Hughes, S. Fagherazzi, L. **Deegan**, D. FitzGerald. The ebb and flood of silica in a New England salt marsh. Session: Biogeochemistry from Watersheds to Coastal Systems. 21<sup>st</sup> Annual meeting Coastal and Estuarine Research Federation. Societies, Estuaries, and Coasts: Adapting to change. Daytona, FL.
- Morkeski, K., L. A. **Deegan**, B. J. Peterson, Z. J. Hughes, S. Fagherazzi. Landscape-level saturation in nitrogen uptake capacity of saltmarshes with chronic nutrient enrichment. (Poster.) 21<sup>st</sup> Annual meeting Coastal and Estuarine Research Federation. Societies, Estuaries, and Coasts: Adapting to change. Daytona, FL.
- Moseman-Valtierra, S., K. D. Kroeger, L. **Deegan**, I. Valiela. Nitrous oxide fluxes from coastal marshes with pulsed or chronic nutrient additions. (Poster). 21<sup>st</sup> Annual meeting Coastal and Estuarine Research Federation. Societies, Estuaries, and Coasts: Adapting to change. Daytona, FL.
- 2010 **Deegan**, L. (*Invited*). Trouble on the Edge: Coastal ecosystems in times of change. Keynote, Louisiana State University, Marine Science Program 40<sup>th</sup> Anniversary. April 2010.
- Johnson, D. S. (*Invited*), L. A. **Deegan**, M. I. Short, A. Mui. Consuming the dead: impacts of detritivores and nutrient enrichment on saltmarsh litter. North American Benthological Society

Annual Meeting, Providence, RI.

**Deegan, L.** (*Invited*). Trouble on the Edge: Coastal ecosystems in times of change. University of Massachusetts, Amherst. Dept of Natural Resource Conservation.

Kennedy, C. G., M. E. Mather, J. T. Finn, L. A. **Deegan**, S. M. Pautzke. Determining acoustic receiver range in a shallow northeastern estuary with complex bathymetry: The role of habitat, depth and tide. Southern New England Chapter of the American Fisheries Society. Avery Pt., CT. Jan 15, 2010.

Pascal, P. Y., J. W. Fleeger, H. T. S. Boschker, L. A. **Deegan**, H. M. Metwally, K. R. Carman. 2010. Fertilizer effect on food webs of mudflats of a salt marsh of New England, 14<sup>th</sup> International Meiofauna Conference, Ghent, Belgium [poster].

Vieillard, A. M., R. W. Fulweiler, L. **Deegan**, S. Fagherazzi, D. FitzGerald. 2010. Effects of fertilization on benthic and pelagic silica fluxes in a New England salt marsh. New England Estuarine Research Society (NEERS) conference. Provincetown, MA [*Rankin Prize for best undergraduate talk*].

2008. Grieneisen, L., D. S. Johnson, L. A. **Deegan** "The effects of herbivory in a nitrogen-enriched salt marsh." Marine Biological Laboratory Annual Young Scientist Symposium, Woods Hole, MA. August 15, 2010.

Richards, T., C. Kennedy, L. Grieneisen, L. **Deegan** "Population and growth response of *Fundulus heteroclitus* to whole ecosystem nutrient enrichment." Marine Biological Laboratory Annual Young Scientist Symposium, Woods Hole, MA. August 15, 2010.

2006. **Deegan**, L. A., C. Neill, R. L. Victoria, C. Hauptert, M. Victoria Ballester, A. V. Krusche, S. M. Thomas. Scaling changes in biogeochemistry of small streams to the landscape: Using <sup>15</sup>N to Trace N Transformations and Transport Presentation at the 10th LBA-ECO Science Team Meeting, Brasilia, October 4-6, 2006.

2005. **Deegan**, L. A., C. Neill, R. L. Victoria, C. Hauptert, M. V. Ballester, A. V. Krusche, S. M. Thomas. Key Connections in Amazon Stream Corridors: Using <sup>15</sup>N to Trace N Transformations and Transport. Presentation at the 9th LBA-ECO Science Team Meeting, São Paulo, November 10-12, 2005.

Bowen, J. L., B. C. Crump, L. A. **Deegan**, J. E. Hobbie. Nitrogen enrichment of a New England salt marsh: Changes in bacterial production and microbial community composition. Oral Presentation, 2005 Fall ERF Meeting, Norfolk Marriott Waterside Hotel & Convention Center, Norfolk, VA, October 16-21, 2005.

Picard, C. R., B. J. Peterson, C. S. Hopkinson, L. A. **Deegan**. Nitrate and phosphate exchange in experimentally fertilized tidal creeks. Poster Presentation, 2005 Fall ERF Meeting, Norfolk Marriott Waterside Hotel & Convention Center, Norfolk, VA, October 16-21, 2005.

Johnson, J. M., L. **Deegan**. Whole Creek manipulations of nutrients and species composition alter nekton production in a New England high marsh ecosystem. Oral Presentation, 2005 Fall ERF Meeting, Norfolk Marriott Waterside Hotel & Convention Center, Norfolk, VA, October 16-21, 2005.

**Deegan**, L. A., B. J. Peterson, C. Hopkinson, J. E. Hobbie, J. Vallino, J. Fleeger, S. Warren, C. Friedrichs, S. A. Sheldon. TIDE: Evaluating the combined effects of increased nutrients and the loss of species on the sustainability of salt marsh ecosystems. Oral Presentation, 2005 Fall ERF Meeting, Norfolk Marriott Waterside Hotel & Convention Center, Norfolk, VA, October 16-21, 2005.

#### **ORGANIZING WORKSHOPS OR SPECIAL SYMPOSIA (INCOMPLETE RECORD)**

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- 2020 Evaluating Runnels for Salt Marsh Adaptation Workshop, Woodwell Climate Research Center, MA. Lead-Organizer for a 70+ person workshop including in-person and remote attendees

- discussing the application and theory related to the 'runnel' salt marsh adaptation technique.  
<https://tinyurl.com/saryhkn>
- 2017 Carey, J., L. A. **Deegan**, J. McClelland and K. Dunton. Session Organizer. Arctic land-ocean connections - from inland to coastal waters. Estuarine and Research Federation (CERF) Biennial Meeting. Providence, RI.
- 2013 SCI-031 Trophic Subsidies in Coastal Ecosystems: Implications for Coastal Management. Convened by: James Nelson, Ross Bouck, Linda Deegan, Jennifer Rehage. 22nd Biennial Conference of the Coastal and Estuarine Research Federation. Toward Resilient Coasts and Estuaries, Science for Sustainable Solutions. 3-7 November 2013. San Diego, CA.
- SCI-033 Can Animal Movements Change Spatially-Explicit Trophic Processes In Seascapes? Convened by: M. Mather, L. A. Deegan, J. Finn and J. Nelson. 22nd Biennial Conference of the Coastal and Estuarine Research Federation. Toward Resilient Coasts and Estuaries, Science for Sustainable Solutions. 3-7 November 2013. San Diego, CA.
- 2012 Managing species for regulating the carbon cycle. Yale Climate and Energy Institute (YCEI) 2012 conference. Invited Participant.
- LTERR All Scientist Meeting, Sept. 2012, YMCA of the Rockies.
- 2009 LTERR All Scientist Meeting, Sept. 2009, YMCA of the Rockies. Workshop to develop the 10-yr plan ISSE plan for the NSF LTERR program.
- 2008 Future of the Ipswich River Watershed and fisheries. Ipswich Watershed Association. June 6, 2008.
- 2007 Status and future of River herring on the Atlantic seacoast. Providence, RI. Conservation Law Foundation. October, 2007.
- 2006 LBA meeting (Brasilia). "Integrating small watershed science in LBA." Organized initial and follow-up workshop (May 7-9, 2006) in Piracicaba.
- 2006 LTERR All Scientist Meeting, Sept. 2006, YMCA of the Rockies. Participated in Workshops to develop the next 10-yr plan for the NSF LTERR program.

#### NON-REFEREED REPORTS

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2000. Allee, R. J., D. Brown, L. A. Deegan, M. Dethier, R. G. Ford, T. F. Hourigan, J. Maragos, C. Schoch, K. Sealey, R. Twilley, M. P. Weinstein, and M. Yoklavich. Marine and Estuarine Ecosystem and Habitat Classification. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. NOAA Technical Memorandum NMFS-FSPO-43. July 2000.  
<http://www.nmfs.noaa.gov/habitat/watershed/index.htm>.
1999. Boynton, E., and L. A. Deegan. Establishing the food web links between estuaries and nearshore fisheries of New England. Final report to the Saltonstall-Kennedy Program. SK Grant #NA76FD0106.
- 1995-1999. Boesch, D. F., N. E. Armstrong, J. E. Cloern, L. A. Deegan, R. D. Perkins, and S. L. Williams. Florida Bay Science Conference. Report of the Florida Bay Science Review Panel. Submitted to the Program Management Committee, Florida Bay Research Program, ~20 pp. per year.
1992. Deegan, L. A., J. T. Finn, S. G. Ayvazian, and C. Ryder. The application of the Index of Biotic Integrity to Massachusetts estuaries. Final Report to Massachusetts Dept. of Environmental Protection, 64 pp.
1992. Deegan, L. A., J. T. Finn, S. G. Ayvazian, and C. Ryder. The application of the Index of Biotic Integrity to Massachusetts estuaries. Data Report to Massachusetts Dept. of Environmental Protection, 584 pp.



1991. Deegan, L. A., J. T. Finn, H. E. Geyer, and S. G. Ayvazian. The influence of macroalgae on fisheries production. Final report to NOAA for Grant NA90AA-H-CZ187, 35 pp.
1991. Deegan, L. A., J. T. Finn, and S. G. Ayvazian. Comparison of young-of-the-year nekton growth and survival in seagrass beds and marshes. Final report to NOAA for Grant NA88AA-D-CZ006, 43 pp.
1991. Deegan, L., J. Finn, S. Murphy, and S. G. Ayvazian. Are critical habitats determined by life history strategies or habitat availabilities? Final report to NOAA for Grant NA88AA-D-CZ005, 105 pp.
1990. Deegan, L., J. T. Finn, S. G. Ayvazian, R. Berry, D. Kinzey, and C. Ryder. Application of the Index of Biotic Integrity to Massachusetts Estuaries. Year II Report to Massachusetts Dept. of Environmental Protection, 64 pp.
1990. Deegan, L. A., and F. Serchuk. Growth and reproduction dynamics of the Iceland Scallop (*Chalymys islandica*) off Cape Cod, MA. Final Report to Woods Hole Oceanographic Sea Grant, 76 pp.
1988. Finn, J. T., and L. A. Deegan. An evaluation of remote sensing data for use and application in watershed land use and water quality investigations, 1987-1988. Final Report to Mass. Dept. of Environmental Protection, 112 pp.
1984. Deegan, L. A. Abundance, size, growth and mortality of juvenile gulf menhaden in Fourleague Bay, Louisiana. Final Report to Coastal and Marine Fisheries Program, 23 pp.
1984. Thompson, B. A., G. R. Fitzhugh, and L. A. Deegan. The influence of frontal passages on migration patterns of fish and macroinvertebrates in a Louisiana tidal pass. Final Report to Coastal and Marine Fisheries Program # 84-8, 35 pp.
1983. Thompson, B. A., and L. A. Deegan. The Atchafalya River Delta: a 'new' fishery nursery, with recommendations for management. Final Report to Coastal and Marine Fisheries Program 83-06, 23 pp.
1983. Deegan, L. A., J. W. Day, Jr., J. G. Gosselink, and A. Yanez-Arancibia. Relationships of vegetation to climate, river discharge and geomorphology in sixty-four Gulf of Mexico estuaries. Final report to Office of Marine Pollution, 63 pp.
1983. Deegan, L. A., W. B. Johnson, J. W. Day, Jr., J. G. Gosselink, and A. Yanez-Arancibia. Relationships between primary productivity and physical characteristics in eight Gulf of Mexico estuaries. Final report to Man and the Biosphere Program, 57 pp.
1980. Day, J. W., Jr., R. Costanza and L. A. Deegan. The use of the systems approach for quantifying environmental impacts. U.S. Fish and Wildlife Service, 30 pp.
1980. Stone, J. H., and L. A. Deegan. Preliminary modeling of the Lake Pontchartrain ecosystem by computer simulations, pp. 1-20. In: J. H. Stone (ed.), Environmental Analysis of Lake\_Pontchartrain, Louisiana, its Wetland Resources, LSU. Contract for U. S. Army Engineer District, New Orleans.
1975. Deegan, L. A. Length mass regression on additional Winter Park Lake fish. Ecological Studies on Central Florida Lakes 7:92-93.
1975. Deegan, L. A. Analysis of fish population distribution in Lake Virginia and Lake Mizell for summer, 1974. Ecological Studies on Central Florida Lakes 7:84-91.
1975. Deegan, L. A. Analysis of species composition, occurrence, and diversity of the fish populations in selected Florida lakes. Ecological Studies on Central Florida Lakes 7:74-83.
1975. Deegan, L. A. Checklist of fishes in the Winter Park lake chain. Ecological Studies on Central Florida Lakes 7:71-73.
1973. Deegan, L. A. Age structure, length mass regressions and oxygen bomb calorimetry of lake forage fishes. Ecological Studies on Central Florida Lakes 6:5-15.

## EDUCATIONAL ACTIVITIES

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### PH.D. GRADUATE STUDENT OF:

John Day, Louisiana State Univ. (retired)  
Bruce Thompson, Louisiana State Univ. (deceased)

### Post-doctoral fellows under my direction and position:

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|--|---|
| 1. Suzanne Ayvazian, 1988 – 1990. US EPA.          | 8. Jennifer Bowen, 2003 – 2007. Northeastern U.         |
| 2. Jeffrey Hughes, 1996 – 2002. Wellesley College. | 9. David S. Johnson, 2009 – 2013. VIMS.                 |
| 3. Melissa Weaver, 1996 – 1998. U. Tennessee       | 10. James Nelson, 2012 – 2015. U. Louisiana - Lafayette |
| 4. Matthew Cieri, 1999 – 2001. State of Maine DMF. | 11. KathiJo Jankowski, 2014 – 2016. USGS                |
| 5. Heather Haas, 2002 – 2004. NOAA.                | 12. Heidi Golden, 2016-2018. GoldenEcology LLC          |
| 6. Karen Buzby, 1998 – 2002. U. Virginia           | 13. Alice Besterman, 2019 – 2023. (Current)             |
| 7. Jonathan Benstead, 2002 – 2006. Univ. Alabama.  |   |

### My Graduate Students (*Italics = Primary advisor*)

- Current.* Hillary Sullivan. Ph.D. candidate. Primary Advisor. Biogeochemistry of New England Saltmarshes. Northeastern U.
- 2016 *Heidi Golden. Ph.D. Primary Advisor. Climate-Induced Habitat Fragmentation Affects Metapopulation Structure of Arctic Grayling in Tundra Streams. University of Connecticut.*
- 2015 *Sarah C. Crosby. Ph.D. Primary Advisor. Salt Marshes in a Changing Climate. Brown University.*
- 2013 Cristina Kennedy. MS. Committee member. University of Massachusetts
- 2007 Joe Smith, Ph.D. Committee member. University of Massachusetts
- 2007 Ylva Olsen, Ph.D., Committee member. Boston University Marine Program
- 2007 Sophia Fox, Ph.D., Committee member. Boston University Marine Program.
- 2007 Sarah Pautze, M.S., Committee member. University of Massachusetts
- 2003 Kristen Ferry, M.S., Committee member. University of Massachusetts.
- 2000 Joam P. Salgado, Ph.D. Committee member. Instituto de Oceanographica, Universidade de Lisboa, Lisboa, Portugal.
- 1996 *Heidi Golden, M.S., Primary Advisor. Ecology of young-of-the-year arctic grayling. - University of Massachusetts at Amherst.*
- 1993 *Cheryl Ryder, M.S., Primary Advisor. Application of the estuarine Index of Biotic Integrity to Buttermilk Bay. University of Massachusetts at Amherst*
- 1991 *Sean Murphy, M.S., Primary Advisor. The ecology of estuarine fishes in southern Maine high marshes. University of Massachusetts at Amherst*
- 1990 *Suesan Saucerman, M.S., Primary Advisor. Movement, distribution and productivity of post-metamorphic winter flounder in different habitat types in Waquoit Bay, MA. University of Massachusetts at Amherst.*
- 1990 Robin Berry, M.S., Committee member. Forestry and Wildlife, University of Massachusetts.
- 1988 Jay McMenemy, M.S., Committee member. Forestry and Wildlife, University of Massachusetts.
- 1988 Paul Cezilwitz, M.S., Committee member. Forestry and Wildlife, University of Massachusetts.
- 1987 Chris Webber, M.S., Committee member. Forestry and Wildlife, University of Massachusetts.
- 1988 Joshua Philibert, M.S., Committee member. Botany, University of Massachusetts.
- 1987 Mark Fregeau, Ph.D., Committee member. Zoology, University of Massachusetts.

**Undergraduate Project Advisor – (Incomplete list)**

1. John Chick, University of Massachusetts. (1988). Lipid storage of adult arctic grayling.
2. Rosemary Bailey, University of Massachusetts. (1991). Young-of-the-year winter flounder feeding.
3. Karen Beatty, University of Massachusetts. (1992). Salt marsh creek variability.
4. Gretchen Gettle, MBL/Boston University Marine Program. (1993). Age of adult arctic grayling.
5. John Harrison, Brown University. (1995). Young-of-the-year arctic grayling metabolism. Office of Polar Programs.
6. Mathew Preisser, Bucknell University. (1995). Influence of physical structure on predation of fish on invertebrates. OCE 93-00490 (REU Site Award to Boston University Marine Program).
7. Amos Wright, Amherst College. (1995). Abundance and growth of young-of-year arctic grayling in the Kuparuk River, Alaska. REU supplement to NSF-DEB-9211775 (ARC LTER).
8. Gabriel Seifert, University of Kiel, Germany. (1996). Nutrient flux caused by winter flounder disturbance.
9. Mike Buchalski, Michigan State University. (1996). Comparison of traditional gut content analyses to isotopic tracer determinations of food webs supporting young-of-year fish in Plum Island Sound, MA. DEB-9407829 (Ecosystem scale<sup>15</sup>N tracer).
10. Kehau Chen, Brigham Young Univ. (1996). Comparison of long-term and year-to-year changes in fish populations in response to eutrophication of Waquoit and Buttermilk Bays. REU supplement to NSF/EPA - R 824767-01-0 (Tracing the fate of nitrogen inputs from watersheds to estuaries).
11. Matt Distler, Amherst College. (1996). The importance of phytoplankton to the oligohaline food web: An isotopic tracer test in Plum Island Sound, MA. WHMSC / 5 College Program Internship.
12. Katina Chiavarelle, Coastal Carolina University. (1997). Tidal river riffle habitats support high diversity, abundance, and growth of gammaridean amphipods.
13. Rob Javonillo, Boston University. (1997). The influence of marsh access on mummichog growth. NSF REU.
14. Cate O'Keefe, Hampshire College. (1997). Effects of nutrient loading on population densities of Arctic grayling young-of-the-year in two arctic Rivers. Office of Polar Programs.
15. Jessica Davis, Bucknell University. (1998). Feeding efficiency of fish in mixed eelgrass/algae communities. NSF REU.
16. Suzanne Graham, University of California. (1998). Threshold effects of eelgrass structure on feeding efficiency in fishes. NSF REU.
17. Jennifer Sweeney, Hiram College. (1998). Population size and site fidelity of *Fundulus heteroclitus* in a macrotidal salt marsh creek.
18. Talia Young, Swarthmore College. (1999). Population size and summer home range of *Carcinus maenus* in salt marsh tidal creeks. PIE LTER.
19. Sharon Komarow, Stanford University. (1999). The influence of flooding on the abundance and growth of *Fundulus heteroclitus* in salt marsh creeks. PIE LTER
20. Lynn Stankiewicz, Clark University. (1999). Growth of juvenile grayling in small arctic streams. ARC LTER
21. Dirk Fleischer, University of Kiel, Germany. (1999). Species composition of a phytoplankton bloom in the Rowley River, MA.
22. Jamie Haines, Connecticut College. (2000). Food choice convergence of benthic and pelagic fishes along an estuarine geomorphological gradient
23. Kara Sergeant, Dickinson College. (2000). Bivalve grazing pressure on primary producers in a New England estuary.
24. Amelia Wolf, Colorado College. (2000). Dissolved inorganic nitrogen uptake kinetics and relative preference indices for estuarine primary producers.
25. Julie Horowitz, Hampshire College. (2001) Stable Isotopic Analysis of food webs in hayed and reference salt marshes.
26. Sarah Twitchell, Middlebury College, Vermont. (2002). The effect of nutrient enrichment on salt marsh food webs.
27. Continued to supervise undergraduate student thesis projects, just stopped keeping track.

**Course Instructor**

MBL Science Journalists program. Instructor. 1992 – 2015. 2015 – Program Director.  
MBL, Ecosystems Center, Aquatic Ecology, SES Program. 1997-2018  
WFBIO 696 - Animals in Ecosystems, 1987.  
WFBIO 672 - Dynamics of Exploited Fish Populations, 1985, 1987.  
WFBIO 571 - Ecology of Marine Fisheries, 1986-1988.  
WFBIO 597 - Independent Study for Undergraduate Students, 1986-1988.  
WFBIO 197 - Fauna of New England, 1987, 1988.  
NAREST 100 - Conservation of Natural Resources, 1985-1987.  
WFBIO 563 - Ecology and Management of Wetland Wildlife, 1986.  
WFBIO 577 - Introduction to Systems Ecology, 1985.  
Hampshire College - Geology and Ecology of New England, 1986.  
WFBIO 577 - Modeling in Fish and Wildlife, 1987.  
Smith College - Marine Ecology, 1987.  
Hampshire College - Aquatic Biology, 1988.

**MY GRADUATE PROGRAM SUPPORT HISTORY**

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|-----------|---|
| 1984-1985 | Marine Fisheries Fellowship, Coastal Fisheries Institute, Louisiana State University. |
| 1983      | Graduate Research Assistant, Department of Marine Sciences, LSU                       |
| 1981-1982 | Research Associate III, Center for Wetland Resources, LSU.                            |
| 1979-1980 | Graduate Research Assistant, Department of Marine Sciences, LSU                       |
| 1978-1979 | Teaching Assistant, Zoology Department, University of New Hampshire.                  |
| 1977-1978 | Research Assistant, Zoology Department, University of New Hampshire.                  |