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**CURRICULUM VITAE**  
**STEPHEN B. BAINES**

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Assistant Professor  
Department of Ecology and Evolution  
Stony Brook University

**RESEARCH INTERESTS**

Plankton ecology; oceanography/limnology; ecological stoichiometry; fate of primary production in aquatic ecosystems; trace element accumulation by algae and trophic transfer through aquatic foodwebs; effects of plankton community structure on biogeochemical processes; role of dissolved organic matter in aquatic ecosystems.

**EDUCATION**

B.A., Biology/English, Drew University, 1985  
Ph.D., Biology, Yale University, May 1993

**THESIS TITLE**

Extracellular release of dissolved organic matter and sinking as fates of planktonic primary production in lakes and oceans. co-advised by Michael L. Pace and Gene E. Likens.

**ACADEMIC EXPERIENCE**

Assistant Professor, Ecology and Evolution, Stony Brook University, Stony Brook, Fall 2007-present  
Joint appointment, School of Marine and Atmospheric Science, Stony Brook University, Fall 2009 - present  
Research Assistant Professor, Marine Sciences Research Center, Stony Brook University, Aug 2001-Summer 2007  
Research Scientist, Marine Sciences Research Center, Stony Brook University, February 1998-Aug 2001  
Associate Researcher, University of Wisconsin, Center for Limnology/North Temperate Lakes Long Term Ecological Research site, June 1995-February 1998  
Manager, McGill University field station at Lake Memphremagog, summers of 1993 and 1994.  
Postdoctoral fellow, Groupe de Recherche Inter-universitaire en Limnologie, Jan 1993 - June 1995.  
Visiting research fellow, Institute of Limnology, University of Uppsala, Uppsala, Sweden, June-October 1992.

**CURRENT FUNDING**

Using plant traits to predict how plant community changes will affect denitrification in wetlands. NY SeaGrant. (sole PI). \$149,608. 2/1/2012-1/31/2014.  
Using plant traits to predict denitrification in wetland ecosystems (Hudson River Foundation Summer Fellowship for Mary Alldred, co-PI as advisor). \$16,000. 9/1/2011 - 8/31/2012.

Understanding the role of picocyanobacteria in the marine silicate cycle. NSF. (PI, multi-institutional collaborative proposal with J. Collier-SoMAS, B.S. Twining- Bigelow, M.A., Brzezinski-UCSB, J.F. Krause - UCSB). \$747,977. 01/01/2012-12/31/2014.

Quantifying the role of dissolved organic matter (DOM) as the missing source of energy to zebra mussel populations in the Hudson River Hudson River Foundation. (sole PI). \$158,818. 9/01/2011 – 0.8/31/2014

Effects of Fe:C ratios in food on marine copepod productivity and physiology. NSF. (PI, N.S. Fisher Co-PI). \$473,904. 04/01/2010 – 03/31/2014.

#### PAST FUNDING

Determining the elemental composition of natural plankton cells in the Eastern Equatorial Pacific using synchrotron x-ray fluorescence microscopy. NSF. (co-PI with B.S. Twining, N.S. Fisher (PI), C.J. Jacobsen, D.M. Nelson) \$466,312. 8/1/05-7/31/08.

Transport, transformation and effects of selenium and carbon in the delta of the Sacramento - San Joaquin Rivers: implications for ecosystem restoration. USGS. (Co-PI with N.S. Fisher (PI), subcontracted part of a 16 PI multidisciplinary study). \$400,277. 9/1/01 - 06/14/05.

Absorption of dissolved organic matter and trace metals by the zebra mussel, *Dreissena polymorpha*. Hudson River Foundation (Co-PI with N.S. Fisher (PI)). \$170,806. 5/1/00 - 04/30/04.

A comparison of metal accumulation in arctic and temperate marine organisms. NSF. (Co-PI with N.S. Fisher (PI)). \$357,420. 5/01/00 - 4/30-2004.

#### HONORS AND AWARDS

Woods Hole Postdoctoral Fellowship, March of 1995. (Offered but declined due to previous commitment to University of Wisconsin.)

American Fisheries Society citation for most significant paper published in the Transactions of the American Fisheries Society, vol 121. 1993

Poconos Comparative Lakes Program Grant, Lehigh University, 1989.

Enders Fellowship Grant, Yale University, 1989

Cary Fellow, Institute of Ecosystem Studies, Spring 1989

University Fellow, Yale University, 1985-8

Summa cum Laude, Drew University, 1985

John G. Berg Memorial Prize in English, Drew University, 1985

Phi Beta Kappa, Drew University chapter, 1985

University Fellowship, Drew University, 1981-1985

#### PUBLICATIONS (contributions in parentheses, \*= corresponding author, † = graduate student, \$ = high school student)

(40) J.-U. Kreft, C.M. Plugge, V. Grimm, C. Prats, J.H.J. Leveau, T. Banitz, **S. Baines**, J. Clark, A. Ros, I. Klapper, C. J.Topping, A.J. Field, A. Schuler, E. Litchman, F.L. Hellweger.

- Mighty small: Observing and modeling individual microbes becomes big science.  
Proceedings of the National Academy of Sciences: in press
- (39) Chen, Xi<sup>†</sup>, N.S. Fisher and **S.B. Baines\***. 2013. Lack of stoichiometric homeostasis with respect to iron in the marine copepod, *Acartia tonsa*. *Limnology and Oceanography*. In press.
- (38) Twining, B.S., and **S.B. Baines**. 2013. The trace metal composition of marine phytoplankton. *Annual Review of Marine Science*. Published online Aug. 26, 2012. DOI: 10.1146/annurev-marine-121211-172322.
- (37) **Baines, S.B.**, B.S. Twining, M.A. Brzezinski, J.W. Krause, S. Vogt, D. Assael and H. McDaniel 2012. Significant silicon accumulation by marine picocyanobacteria. *Nature Geoscience* 5:886-891. DOI: 10.1038/NGEO1641
- (36) Twining, B.S., **S.B. Baines**, S. Vogt and D.M. Nelson. The role of diatoms in the biogeochemical cycling of nickel. 2012. *Global Biogeochemical Cycles*. 26:GB4001 DOI: 10.1029/2011GB004233
- (35) Vine D.M., C. Holzner, **S.B. Baines**, D. Pelliccia, A. Berry, I. McNulty, S. Vogt, A.G. Peele, K.A. Nugent. 2012. Simultaneous X-ray fluorescence and ptychographic microscopy of *Cyclotella meneghiniana*. *Optics Express* 20:18287-18296. DOI: 10.1364/OE.20.018287
- (34) <sup>†</sup>Chen, Xi, **S.B. Baines** and N.S. Fisher. 2011. Can copepods be limited by the iron content of their food? *Limnology and Oceanography*. 56: 451-460. DOI: 10.4319/lo.2011.56.2.0451
- (33) **Baines, S.B.**, B.S. Twining, S. Vogt, W.M. Balch, N.S. Fisher, and D.M. Nelson. 2011. Elemental composition of Equatorial Pacific diatoms exposed to additions of silicic acid and iron. *Deep Sea Research II* 58(3-4):512-523. DOI: 10.1016/j.dsr2.2010.08.003
- (32) Twining, B.S., **S.B. Baines**, J.B. Bozard, S. Vogt, E.A. Walker, D.M. Nelson. 2011. Metal quotas of plankton in the equatorial Pacific Ocean. *Deep Sea Research II* 58(3-4):325-341. DOI:10.1016/j.dsr2.2010.08.018
- (31) Brzezinski, M.A., **Baines, S.B.**, Balch, W.M., Beuchere, C., Chai, F., Dugdale, D.G., Krause, J.W., Landry, M.R., Marchi, A., Measures, C.M., Nelson, D.M., Parker, A., Poulton, A., Selph, K.E., Strutton, P., Taylor, A.G., Twining, B.S., 2011. Co-limitation of diatoms by iron and silicic acid in the equatorial Pacific. *Deep Sea Research II* 58(3-4): 493-511. DOI:10.1016/j.dsr2.2010.08.005
- (30) **Baines, S.B.**, B.S. Twining, S. Vogt, M.A., Brzezinski, D.M. Nelson, N.S. Fisher. 2010. Causes and biogeochemical implications of regional differences in silicification of marine diatoms. *Global Biogeochemical Cycles* 24:GB4031. DOI:10.1029/2010GB003856
- (29) Krause, J.W., M.A. Brzezinski, M.R. Landry, **S.B. Baines**, D.M. Nelson, K.E. Selph, A.G. Taylor, and B.S. Twining. 2010. The impact of biogenic silica detritus and large diatoms on Si-cycling in the euphotic zone of the eastern equatorial Pacific. *Limnology and Oceanography*. 55(6):2608–2622. DOI:10.4319/lo2010.55.6.2608
- (28) Holzner, Christian, M. Feser, B Hornberger, S. Vogt, **S.B. Baines**, and C.J. Jacobsen. 2010. Reciprocity: Scanning Zernike Phase Contrast. *Nature Physics* 6:883–887 DOI: 10.1038/nphys1765

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- (27) de Jonge, MD, Holzner, C. **Baines, S.B.**, Twining, B.S., Ignatyev, K., Diaz, J. Howard, D.L., Micelli, A., McNulty, I., Jacobsen, C. Vogt, S. 2010. Quantitative 3-D elemental nanotomography of *Cyclotella meneghiniana*. Proceedings National Academy of Science. 107:15676-15680. DOI: 10.1073/pnas.1001469107
- (26) Núñez-Milland, D. R., B. S. Twining, **S. B. Baines**, and S. Vogt. 2010. Quantification of phosphorus in individual phytoplankton cells using synchrotron x-ray fluorescence. Journal of Synchrotron Radiation. 17:560-566. DOI: 10.1107/S0909049510014020
- (25) Adrian, R., C. M. O'Reilly, H. Zagarese, **S. B. Baines**, D. O. Hessen, W. Keller, D. M. Livingstone, R. Sommaruga, D. Straile, E. Van Donk, G. A. Weyhenmeyer, and M. Winder. 2009. Lakes as sentinels of climate change. Limnology and Oceanography 54:2283-2297. doi: 10.4319/lo.2009.54.6\_part\_2.2283
- (24) **Baines, S.B.** and Fisher, N.S. 2008. Modeling the effect of temperature on bioaccumulation of metals by a marine bioindicator organism, *Mytilus edulis*. (Environmental Science and Technology 42:3277-3282. DOI: 10.1021/es702336q
- (23) Twining, B.S., **S.B. Baines**, S. Vogt, and M. de Jonge. 2008. Exploring ocean biogeochemistry by single-cell microprobe analysis of protist elemental composition. Journal of Eukaryotic Microbiology 55:151-162. DOI: 10.1111/j.1550-7408.2008.00320.x
- (22) **Baines, S.B.**, N.S. Fisher, and J.J. Cole. 2007. Dissolved organic matter and persistence of the invasive zebra mussel (*Dreissena polymorpha*) under low food conditions. Limnology and Oceanography. 52:70-78.
- (21) Doblin, M.A., **S.B. Baines**, Cutter, L.S., and Cutter, G.A. 2006. Sources and biogeochemical cycling of particulate selenium in the San Francisco Bay estuary. Estuarine Coastal and Shelf Science. 67:861-694. doi: 10.1016/j.ecss.2006.01.007
- (20) **Baines, S.B.**, N.S. Fisher, and E.L. Kinney. 2006. Influence of temperature on uptake of dissolved metal by Arctic and temperate mussels. Marine Ecology - Progress Series 308:117-128. doi: 10.3354/meps308117
- (19) **Baines, S.B.**, N.S. Fisher, E.L. Kinney. 2005. Influence of temperature on dietary metal uptake in Arctic and temperate mussels. Marine Ecology - Progress Series 289:201-213. doi: 10.3354/meps289201.
- (18) **Baines, S. B.**, N.S. Fisher, and J.J. Cole. 2005. Uptake of dissolved organic matter (DOM) and its importance to metabolic requirements of the zebra mussel, *Dreissena polymorpha*. Limnology and Oceanography 50: 36-47.
- (17) Twining, B.S., **S.B. Baines**, N.S. Fisher, and M.R. Landry. 2004. Cellular iron contents of plankton during the Southern Ocean Iron Experiment (SOFeX). Deep-Sea Research I 51: 1827-1850.

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- (16) Twining, B.S., **S.B. Baines**, and Nicholas S. Fisher. 2004. Element stoichiometries of individual plankton cells collected during the Southern Ocean Iron Experiment (SOFEX). *Limnology and Oceanography* 49: 2115-2128.
- (15) **Baines, S.B.**, N.S. Fisher, M.A. Doblin, G.A. Cutter, L. Cutter and B.E. Cole. 2004. Light dependence of selenium uptake by phytoplankton and implications for predicting selenium incorporation into food-webs. *Limnology and Oceanography* 49:566-578.
- (14) Twining, B.S., **S.B. Baines**, N.S. Fisher, J. Maser, S. Vogt, C. Jacobsen, A. Tovar-Sanchez, and S.A. Sañudo-Wilhelmy. 2003. Quantifying trace elements in individual aquatic protist cells with a synchrotron x-ray fluorescence microprobe. *Analytical Chemistry* 75:3806-3816. doi: 10.1021/ac034227z
- (13) Twining, B.S., **S.B. Baines**, N.S. Fisher, C. Jacobsen, and J. Maser 2003. Quantification and localization of metal within natural plankton cells using a synchrotron x-ray fluorescence microprobe. *Journal de Physique IV* 104:435-438. doi: 10.1051/jp4:20030117
- (12) **Baines, S.B.**, N.S. Fisher and R. Stewart. 2002. Assimilation and retention of selenium and other trace elements from crustacean food by juvenile striped bass (*Morone saxatilis*). *Limnology and Oceanography* 47: 646-655.
- (11) **Baines, S.B.**, N.S. Fisher, M.A. Doblin, and G.A. Cutter. 2001. Uptake of dissolved organic selenide by marine phytoplankton. *Limnology and Oceanography* 46: 1936-1944.
- (10) **Baines, S.B.** and N.S. Fisher. 2001. Interspecific differences in the bioconcentration of selenite by phytoplankton and their ecological implications. *Marine Ecology-Progress Series* 213:1-12. doi: 10.3354/meps213001
- (9) Twining, B.S., **S.B. Baines**, and N.S. Fisher. 2001. Measurement of metal concentrations in marine nanoplankton cells using an X-ray fluorescence microprobe. *Rapp. Comm. Int. Mer. Medit.* 36: 169.
- (8) **Baines, S.B.**, K.E. Webster, T.K. Kratz, S.R. Carpenter and J.J. Magnuson. 2000. Synchronous behavior of temperature calcium and chlorophyll in lakes of Northern Wisconsin. *Ecology* 81:815-825. doi: 10.1890/0012-9658(2000)081[0815:SBOTCA]2.0.CO;2
- (7) Webster, K.E., P.A. Soranno, **S.B. Baines**, T.K. Kratz, C.J. Bowser, P.J. Dillon, P. Campbell, E.J. Fee, and R.E. Hecky. 1999. Structuring features of lake districts: geomorphic and landscape controls on lake chemical responses to drought. *Freshwater Biology* 43:499-515.
- (6) Kratz, T.K., P.A. Soranno, **S.B. Baines**, B.J. Benson, J.J. Magnuson, T.M. Frost, and R.C. Lathrop. 1998. Interannual synchronous dynamics in north temperate lakes in Wisconsin, USA. Pages 273-287 In George, D.G., J. G. Jones, P. Puncochar, C. S. Reynolds, and D. W. Sutcliffe (eds.) *Management of Lakes and Reservoirs during Global Climate Change*. Kluwer Academic.

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- (5) **Baines, S.B.**, M.L. Pace, and D.M. Karl. 1994. Why does the relationship between sinking flux and planktonic primary production differ between lakes and the ocean? *Limnology and Oceanography* 38(2):213-226.
  - (4) **Baines, S.B.**, and M.L. Pace. 1994. Sinking fluxes across a trophic gradient: patterns and their implications for the fate of primary production. *Canadian Journal of Fisheries and Aquatic Sciences*. *Canadian Journal of Fisheries and Aquatic Science* 51(1):26-39.
  - (3) Pace, M.L., **S.B. Baines**, H. Cyr, and J.A. Downing. 1993. Relationships among early life history stages of *Morone americana* and *Morone saxatilis* from long-term monitoring of the Hudson River estuary. *Canadian Journal of Fisheries and Aquatic Science* 50:1976-1985.
  - (2) Cyr H., J.A. Downing, S. Lalonde, **S.B. Baines** and M.L. Pace, 1992. Sampling larval fish populations: choice of sample number and size. *Transactions of the American Fisheries Society* 121:356-368.
  - (1) **Baines, S.B.**, and M.L. Pace, 1991. The production of dissolved organic matter by phytoplankton and its importance to bacteria: patterns across marine and freshwater systems. *Limnology and Oceanography* 36:1078-90.

MANUSCRIPTS IN REVIEW (contributions in parentheses, \*= corresponding author, † = graduate student, § = high school student)

- (1) Chen, Xi<sup>†</sup>, N.S. Fisher and S.B. Baines\*. Mineral limitation of *Calanus pacificus* egg production by dietary Fe. *Journal of Plankton Research*.
- (2) Alldred, M. <sup>†</sup>, and **S.B. Baines**. Quantifying effects of plant communities on denitrification in wetlands: a meta-analysis. *Ecology Letters*.

IN PREP FOR SUBMISSION IN NEXT 6 MONTHS (contributions in parentheses, \*= corresponding author, † = graduate student, § = high school student)

- (1) Chen, Xi<sup>†</sup>, N.S. Fisher and **S.B. Baines\***. Fe and Zn contents and RNA:DNA ratios in zooplankton of the Costa Rica Dome. *Deep Sea Research I*.
- (2) **Baines, S.B.** and X. Chen<sup>†</sup>. Likely mineral limitation of secondary production by trace elements in aquatic food webs. *Ecology Letters*
- (3) Twining, B.S., **S.B. Baines**, J.B. Bozard, D.M. Nelson. Fe storage in diatoms of the Eastern Equatorial Pacific. *Journal of Phycology*.
- (4) **Baines S.B.** Dissolved organic matter as a direct energy subsidy to aquatic consumers. *Bioscience*.

INVITED EXTRA-DEPARTMENTAL SEMINARS

- (18) **Baines, S.B.** Phytoplankton community stoichiometry and biogeochemical cycles. Center for Macroecology and Evolution, University of Copenhagen, Copenhagen, Denmark. Dec. 7, 2011.
- (17) **Baines, S.B.** Phytoplankton community stoichiometry and biogeochemical cycles. Danish Technical University, National Institute of Aquatic Resources, Charlottenlund, Denmark. Dec. 6, 2011.
- (16) **Baines, S.B.** Linking organism traits and ecosystem function in aquatic environments: a trilogy. Department of Ecology and Evolution. Yale University. New Haven, CT, Sept. 28, 2011.
- (15) **Baines, S.B.** Variation in stoichiometry of marine protists and biogeochemical cycles. Workshop for individual based approaches in microbial ecology. National Institute for Mathematical and Biological Synthesis, University of Tennessee, Knoxville, TN. June 2011.
- (14) **Baines, S.B.** Users Science Seminar. Advanced Photon Source, Argonne National Lab. Argonne IL. Oct. 15, 2010.
- (13) **Baines, S.B.** From microbes to the globe: elemental content of the plankton and marine biogeochemical cycles. Plenary talk for the National Synchrotron Light Source (NSLS) and Center for Functional Nanomaterials (CFN) Users' Meeting, Brookhaven National Lab. Brookhaven, NY. May 25, 2010.
- (12) **Baines, S.B.** Dissolved organic matter subsidies and transformation of the Hudson River food web by the invasive zebra mussel. CUNY – Queens College, Department of Biology. New York, NY. Mar 10, 2010.
- (11) **Baines, S.B.,** Twining, B.S. and Stefan Vogt. From microbes to the globe: elemental content of the plankton and global biogeochemical cycles. Workshop on Biological hierarchies and x-ray imaging. Argonne National Laboratory, Advanced Photon Source Users Meeting. Argonne, IL. May. 2009.
- (10) **Baines, S.B.** Variability in elemental composition of marine microbes: biological causes and climatic consequences. Advanced Photon Source Renewal Meeting, Argonne National Laboratory. Argonne, IL. Nov 2008.
- (9) **Baines, S.B.** Elemental stoichiometry of protists in Fe limited regions. Marine Sciences Research Center, Stony Brook University. Stony Brook, NY. Feb 14 2008.
- (8) **Baines, S.B.,** B.S. Twining, S. Vogt. The elemental composition of the natural marine protists under Fe limitation: implications for control of atmospheric CO<sub>2</sub> by the ocean. Biological Applications of X-Ray Microprobes. Northwestern University, Chicago, IL. Nov 11-13 2007.
- (7) **Baines, S.B.,** B.S. Twining, N.S. Fisher, S. Vogt, J.M. Mäser, and C. Jacobsen. Cellular stoichiometry to global elemental cycles: the effect of Fe addition on cellular stoichiometry of oceanic protists. Workshop for High Resolution X-ray analysis in Biological Systems: New Opportunities. Advanced Photon Source, Argonne National Laboratory. Argonne IL. Mar 2005.

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- (6) **Baines, S.B.**, B.S. Twining, N.S. Fisher, S. Vogt, J.M. Mäser, and C. Jacobsen. Opening the black box: trace element concentrations and distributions in free-living marine protists determined with a high spatial resolution x-ray fluorescence microprobe. Workshop on Biological Applications of X-ray Microscopy and Imaging: 12<sup>th</sup> Annual Users' Meeting for the Advanced Photon Source, Argonne National Lab. Argonne, IL. Apr 2003.
  - (5) **Baines, S.B.**, G. Lauster, S.R. Carpenter, and T.K. Kratz. Can correlates of particle aggregation predict apparent material sinking rates in lakes and oceans? American Society of Limnology and Oceanography meetings, Santa Fe, New Mexico. Feb 1997.
  - (4) **Baines, S.B.** Patterns of extracellular release and sinking of carbon along trophic gradients in lakes and the ocean: Implications for the fate of phytoplankton production. Uppsala University, Uppsala, Sweden. Oct 1992.
  - (3) **Baines, S.B.**, M.L. Pace, D. Karl. Why does the relationship between sedimentation and primary production differ between lakes and the ocean. American Society of Limnology and Oceanography meetings. Santa Fe, NM. Feb 1992.
  - (2) **Baines, S.B.** Sedimentation and the fate of primary production. McGill University, Dept. of Biology, Montreal, Canada. Oct 1991.
  - (1) **Baines, S.B.**, and M.L. Pace. Metalimnetic pigments drive sedimentation rates in lakes. American Society of Limnology and Oceanography meetings, Halifax, Nova Scotia, Jul 1991.

#### TEACHING EXPERIENCE

Instructor: BIO386/ENS311, Ecosystem ecology and the global environment, Stony Brook University, Spring 2009-14.

Co-instructor: BEE550, Principals of Ecology, Ecosystem module, Stony Brook University, Fall 2007 – 2013.

Guest Lecturer: BIO386/ENS311, Ecosystem ecology and the global environment, Stony Brook University, Spring 2008.

Guest lecturer: BIO 351, Ecology, Stony Brook University, Fall 2006, 2007, 2009, 2011.

Instructor: Freshman Seminar in The Science and Society College of Stony Brook University: Vitamin or poison pill: Trace elements in aquatic environments. Spring 2005.

Lecturer: Introduction to Oceanography, online course for the Electronic Extension Program at Stony Brook University, Fall 2004, Spring and Summer 2005, Fall, Spring and Summer 2006.

Periodic lecturer on phytoplankton and primary production in Biological Oceanography core course, Marine Science Research Center, SUNY-Stony Brook. Spring, 2000.

Co-organized seminar course in Estuarine Science with Dr. Gordon Taylor, Marine Science Research Center, SUNY-Stony Brook. Spring, 2000.

Research Experiences for Undergraduates Mentor. Marine Science Research Center, Stony Brook. Summer 1999.

Research experiences for undergraduates, co-ordinator of phytoplankton and protozoan ecology component, Marine Science Research Center, Stony Brook. Summer 1999.



Primary production and biogeochemical cycles, graduate seminar in oceanography, visitor with Drs. Nicholas Fisher and Cindy Lee, Marine Science Research Center, Stony Brook, Spring 1999.

Field Course in Ecology, Coordinator of stream decomposition component, with Dr. C. Craig, Yale University, 1988.

Introductory Biology, teaching and laboratory assistant, with Dr. Keith Thompson, Yale University, 1987.

Ecology, teaching assistant and discussion section leader, with Dr. Leo Buss, Yale University, 1987.

Ecology, teaching assistant and discussion section leader, with Dr. C. Craig, Yale University, 1986.

Anatomy and Physiology, laboratory assistant, with Dr. Joy Phillips, Drew University, Spring 1985.

### MENTORING

**Students advised:** Xi Chen, PhD, School of Marine and Atmospheric Sciences, (with N.S. Fisher), graduated Dec 2011; Mary Alldred, PhD; Ecology and Evolution, Emily Herstoff, PhD, E&E; Stoycho Velkovsky, PhD, E&E.

**Post-doctoral fellows advised:** Katie Schneider

**Committees for E&E:** John Borelli, PhD; James P. Browne, PhD; Michael McCann, PhD; Omar Warsi, PhD; Megan Flenniken, PhD; Susan Natali, PhD, E&E..

**Committees for SoMAS:** Sheryl Bell, PhD; Teresa Mathews, PhD; Amanda Burson, M.S.

**High school and undergraduates.** Supervised 10 undergraduate and ten high school independent studies from 1995 to the present.

**Prizes won:** Nicole Franco (Long Island Science and Engineering Fair (LISEF) special mention), Dylan Assael (Intel Semi finalist, International Sustainable World Energy Engineering Environment Project (I-SWEEEP) finalist, LISEF area winner).

### REVIEWING ACTIVITIES

Limnology and Oceanography, Marine Ecology-Progress Series, JGR-Oceans, Deep-Sea Research, Archiv für Hydrobiologie, Canadian Journal of Fisheries and Aquatic Sciences, Freshwater Biology, Ecography, Ecosystems, Hydrobiologia, Marine Biology, Aquatic Microbial Ecology, Journal of the North American Benthological Society, Aquatic Biology, PlosOne, Biogeosciences, Coasts and Estuaries, Journal of Plankton Research, Journal of the Marine Biological Association of the UK.

### EDITORIAL DUTY

Ecological Applications: Subject Matter Editor (2011-present)

### DEPARTMENTAL SERVICE

Departmental Chair Search Committee (2013)

Undergraduate Biology Specialization Overhaul (2013-2014)

Hiring Cluster Proposal Group for Regional Climate Change, and Coastal Sustainability Clusters (Spring 2012)

Prelim Exam Committee (Spring 2011)

Undergraduate Faculty Advisor for Biology, Ecology and Evolution and Environmental Science tracks (2010-present)

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Graduate Admissions Committee (2008, 2009, 2010)  
Member of Climate Change Group (2008 – present)  
Departmental Retreat Follow-up Committee (2008)  
Hiring Advisory Committee (2008)

#### UNIVERSITY SERVICE

CAS AA/EEO Area Committee (2008-present)  
Southampton Ecologist Search Committee (2007, 2008)

#### REPORTS NOT SUBJECT TO PEER-REVIEW

Allred, M.A. and S.B. Baines. 2011. Invasive-species removals and nitrogen-removal ecosystem services in freshwater tidal marshes. A Final Report to the Tibor T. Polgar Fellowship Program.

M.L. Pace, H. Cyr and S. Baines. 1992. Evaluation of utilities monitoring surveys for evidence of faunal decline in the upper Hudson River. pp 35-72 in The Analysis of Hudson River Fish Populations from the Utilities Monitoring Program: A Final Report to the Hudson River Foundation.

#### GENERAL SERVICE

Co-organizer of the Lake District Workshop which brought scientists from around the world to discuss how lake characteristics and dynamics may be structured spatially across landscapes. Feb 5-8, 1997. Trout Lake Station, Boulder Junction, Wisconsin.  
Member of organization committee for Science and Policy Forum at McGill University entitled "Acid Rain: Did Science Make a Difference?," Mar. 2, 1994.  
DIALOG (Dissertation Initiative in Limnology and Oceanography) selection committee member for the American Society of Limnology and Oceanography.  
Periodic lecturer in the education program at the Institute of Ecosystem Studies, 1991-1992.