

## STEVEN Y. LITVIN Ph.D.

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### **EDUCATION**

**Ph.D., Graduate School of Oceanography**, Rutgers, The State University, 2005  
**M.S., Graduate School of Ecology and Evolution**, Rutgers, The State University, 1997  
**Bachelor of Science, Biology, Ecology Option**, The Pennsylvania State University, 1993

### **PROFESSIONAL EXPERIENCE**

**Postdoctoral Research Associate**, 2005 – Present, Bahamas Bio-complexity Project. Hopkins Marine Station, Stanford University, Pacific Grove, CA, Advisor: Dr. Fiorenza Micheli  
**Research Associate**, 1999 – 2005, New Jersey Marine Sciences Consortium, Ft. Hancock, NJ  
**QA/QC and Information Manager**, 2000 – 2003, New Jersey component, EPA National Coastal Assessment (Coastal 2000) Program  
**Associate Director**, 1997 – 1999, New Jersey Sea Grant College Program, New Jersey Marine Sciences Consortium, Ft. Hancock, NJ  
**Acting Director**, 1998 – 1999, New Jersey Sea Grant Extension, New Jersey Marine Sciences Consortium, Ft. Hancock, NJ  
**Graduate Assistant** (Coastal Oceans Program/NOAA Grant), 1993 – 1995, Institute of Marine and Coastal Sciences, Rutgers, The State University, New Brunswick, NJ  
**Bio-monitoring Laboratory Assistant**, 1992 – 1993, Department of Biology, The Pennsylvania State University, University Park, PA  
**Summer Research Assistant and Scientific Programmer** (C++ and Pascal), 1988 – 1993, Department of Physics, The Pennsylvania State University, Berks Campus, Wyomissing, PA

### **TEACHING**

**Teaching Assistant**, 2003 & 2004, Oceanographic Methods with Dr. Oscar M.E. Schofield, Department of Oceanography, Rutgers, The State University, New Brunswick, NJ

### **WORKSHOPS**

**Complex Systems Summer School**, 2005, Santa Fe Institute

### **GRANTS AND AWARDS**

**New Jersey Water Resources Research Institute Graduate Student Research Grants**, 2002 and 2003 (\$4,500, \$5,000)  
**Ketchum Award**, 1996, Best graduate student research presentation, New England Estuarine Research Society

### **PUBLICATIONS**

*In preparation*

**Litvin, S.Y.**, M.P. Weinstein and V.G. Guida. The effect of estuarine habitat utilization on the condition of a juvenile marine transient: a coupled stable isotopic and biochemical approach (for *Canadian Journal of Fisheries and Aquatic Sciences*).  
**Litvin, S.Y.**, V.G. Guida and M.P. Weinstein. Multiple energy allocation strategies in juvenile fish are mediated by metabolic scaling (for *Ecology*).  
**Litvin, S.Y.**, V.G. Guida and M.P. Weinstein. Lipid class dynamics during development in the juvenile period of weakfish and their application to condition assessment (for *Journal of Fish Biology*).

*In print*

- Mumby, P.J., F. Micheli, C.P. Dahlgren, **S.Y. Litvin**, A.B. Gill, D.R. Brumbaugh, K. Broad, J.N. Sanchirico, C.V. Kappel, A.R. Harborne, and K.E. Holmes. 2006. Marine parks need sharks? Response to letter. *Science* 312: 527-528.
- Weinstein, M.P., **S.Y. Litvin** and V.G. Guida. 2005. Considerations of habitat linkages, estuary landscapes, and trophic spectrum in wetland restoration design. *Journal of Coastal Research*. SI 40: 51- 63.
- Litvin, S.Y.** and M.P. Weinstein. 2004. Multivariate analysis of stable isotope ratios to infer movements and utilization of estuarine organic matter by juvenile weakfish (*Cynoscion regalis*). *Canadian Journal of Fisheries and Aquatic Sciences*. 61(10):1851-1861.
- Litvin, S.Y.** and M.P. Weinstein. 2003. Life history strategies of estuarine nekton: the role of marsh macrophytes, benthic microalgae, and phytoplankton in the trophic spectrum. *Estuaries* 26(2B):552 - 563.
- Weinstein, M.P., **S.Y. Litvin**, K.I. Bosley, C.M. Fuller and S.C. Wainright. 2000. The role of tidal salt marsh as an energy source for juvenile marine transient finfishes: a stable isotope approach. *Transactions of the American Fisheries Society*. 129:797 - 810 (Nominated for *Best Paper Award*, 2000 volume of *TAFS*)
- Litvin, D.B., **S.Y. Litvin**, and V. Janovec. 1995. Magnetic completely transposable twin-laws and tensor distinction. *Acta Crystallographica*. A51:524.
- Litvin, D.B., V. Janovec, and **S.Y. Litvin**. 1994. Non-ferroelastic magnetoelectric twin laws. *Ferroelectric*. 162: 275.
- Litvin, S.Y.** and D.B. Litvin. 1993. Layer GPD: A program to visualize the layer groups. *Journal of Applied Crystallography*. 26:498.
- Litvin, S.Y.** and D.B. Litvin. 1991. Rank 0,1, 2, and 3 magnetic and non-magnetic physical property tensors. *Acta Crystallographica*. A47:290.
- Litvin, S.Y.** and D.B. Litvin. 1990. Physical-property tensors and tensor pairs in crystals. *Acta Crystallographica*. A46:711.
- Litvin, S.Y.**, A.B. Romberger, and D.B. Litvin. 1988. Generation and experimental measurement of a one-dimensional quasi-crystal diffraction pattern. *American Journal of Physics*. 56:1.
- Litvin, S.Y.** and D.B. Litvin. 1986. One-dimensional quasi-crystals and sequences of ones and zeros. *Physics Letters A*. 116:39.

**THESIS**

- Litvin, S.Y.** 2005. Trophic Linkages, Movements, Condition and Energetics of a Juvenile Weakfish (*Cynoscion regalis*) in the Delaware Bay Estuary: Implications for the Role of Habitat in Secondary Production, Doctoral Thesis, Rutgers, The State University.
- Litvin, S.Y.** 1997. Habitat Utilization by Juvenile Winter Flounder and Tautog as Indicated by Carbon and Nitrogen Stable Isotopes, Masters Thesis, Rutgers, The State University.

**PRESENTATIONS AND LECTURES (\*Invited)**

- Litvin, S.Y.**, F. Micheli and J.A. Dunne (2007). Network structure, biodiversity and robustness of marine fish communities across the Bahamian archipelago. *American Fisheries Society Annual Meeting*. September 2 -7. San Francisco, CA.
- Litvin, S.Y.**, J. Kellner, A. Hastings and F. Micheli (2007). Multiple factors influencing species interactions in a coral reef ecosystem: implications for the dominant grazer, *Sparisoma viride*. *Ecological Society of America Annual Meeting*. August 5-10, San Jose, CA.
- Litvin, S. Y.** 2006. Multiple energy allocation strategies in a young of the year estuarine fish are mediated by mass specific metabolic rates. *Western Society of Naturalists Annual Meeting*. November 9-12. Redmond, WA.
- \***Litvin, S. Y.** 2006. Considering the effect of habitat utilization on the condition and recruitment of a young-of-the-year marine transient, *Cynoscion regalis*, on the scale of the estuary: insights from a coupled stable isotope and biochemical approach. *Alaska Fisheries Science Center*. November 7. Seattle, WA.
- \*Weinstein, M.P., **Litvin, S.Y.** and V.G. Guida. 2006. Spatio-Temporal Use of The Habitat Mosaic in Delaware Bay: How Young-of-Year Weakfish (*Cynoscion regalis*) Get Fat. *American Fisheries Society Annual Meeting*. September 10-14. Lake Placid, NY.

- Litvin, S. Y.**, Weinstein, M. P., and V.G. Guida. 2006. Inter annual variability in the contribution of salt marshes to the production of an estuarine marine transient. *Society for Conservation Biology Annual Meeting*. June 24-28. San Jose, CA.
- Micheli, F., Mumby, P.J., Dahlgren, C.P., Harborne, A.R., Kappel, C.V., Brumbaugh, D.R., Holmes, K.E. Hastings, A., Kellner, J.B., **Litvin, S.Y.**, Broad, K., and J.N. Sanchirico. 2006. Conservation of Biodiversity and Ecosystem Function in Coral Reef Seascapes. *Society for Conservation Biology Annual Meeting*. June 24-28. San Jose, CA.
- Litvin, S. Y.**, Weinstein, M. P., Guida, V. G. and A.G. Grotoli. 2005. Considering the production of fish on the scale of the estuary: insights from multidisciplinary approach. *Estuarine Research Federation Biannual Meeting*. October 16 – 21. Norfolk, VA.
- Litvin, S.Y.**, Weinstein, M.P. and V.G. Guida. 2003. Habitat utilization patterns of a juvenile marine transient: effects on biochemical condition and implications on the value of habitat for fish production. *Estuarine Research Federation Biannual Meeting*. September 14 – 18. Seattle, WA.
- Noji, C., Adams, D.A., Kurtenbach, J.P., **Litvin, S.Y.** and M.P. Weinstein. 2003. Assessing the ecological condition of Barnegat Bay – Little Egg Harbor: a preliminary comparison of multimetric and multivariate condition indices based on data from the EPA National Coastal Assessment *Estuarine Research Federation Biannual Meeting*. September 14 – 18. Seattle, WA.
- \*Weinstein, M.P., **Litvin, S.Y.** and V.G. Guida. 2003. Restoring “function” in degraded marshes: habitat linkages and trophic pathways for marine transients. *Restore Americas Estuaries Inaugural Conference on Coastal and Estuarine Habitat Restoration*. April 13-16. Baltimore, MD.
- \***Litvin, S.Y.**, Guida, V.G., Weinstein, M.P. and S. Thorrold. 2002. Exploring the effects of estuarine habitat utilization patterns on the biochemical condition of juvenile marine transients. *American Fisheries Society Annual Meeting*. August 18 – 22. Baltimore, MD.
- Litvin, S.Y.**, Guida, V.G., and M.P. Weinstein. 2002. The use of thin layer chromatography with flame ionization detection (TLC/FID) to assess the biochemical condition of juvenile weakfish in Delaware Bay. *American Society of Limnology and Oceanography*. June 10 – 14. Victoria, BC, Canada.
- \*Weinstein, M.P., **Litvin, S.Y.** and C.A. Currin. 2002. *Phragmites australis* and the marsh paradigm: A review of the use of stable isotopes to evaluate the flow of nutrients from primary producers to consumers. Technical Forum and Workshop – *Phragmites australis*: A sheep in wolf’s clothing? January 6 – 9. Vineland, NJ.
- Litvin, S.Y.**, Guida, V.G., and M.P. Weinstein. 2001. Trophic Linkages And Relative Importance Of Salt Marsh Habitats To Resident And Marine Transient Finfish In Delaware Bay: A Stable Isotope And “Biochemical Condition” Approach. *Estuarine Research Federation Biannual Meeting*. November 4 – 8. Saint Petes Beach, FL.
- \*Weinstein, M.P. and **S.Y. Litvin**. 2001. Marine transients and the coastal conveyor belt: the role of estuarine “bouillabaisse” in recruitment success. *Estuarine Research Federation Biannual Meeting*. November 4 – 8. Saint Petes Beach, FL.
- Litvin, S.Y.**, Guida, V.G., and M.P. Weinstein. 2001. Trophic Linkages and Relative Importance of Marsh Habitats to the Production of Finfish in Delaware Bay. *57<sup>th</sup> Annual Northeast Fish and Wildlife Conference*. April 22 – 25. Saratoga Springs, NY.
- \***Litvin, S.Y.**, Weinstein, M.P., Wainright, S.C., Bosley, K.L., and C.M. Fuller. 1999. Was Teal Right? – The Marsh Paradigm Revisited (II). *Estuarine Research Federation Biannual Meeting*. September 25-30. New Orleans, LA.
- \*Weinstein, M.P., Wainright, S.C., Currin, C.C., **Litvin, S.Y.**, Bosley, K.L., and C.M. Fuller. 1999. Was Teal Right? – The Marsh Paradigm Revisited. *Estuarine Research Federation Biannual Meeting*. September 25-30. New Orleans, LA.
- \*Weinstein, M.P., S.C. Wainright, **S.Y. Litvin**, C.A. Currin and K.W. Able. 1999. Nutrient flow from tidal salt marsh flora to marine transient finfishes in Delaware Bay: A multiple stable isotope approach. *20<sup>th</sup> Annual Meeting of the Society of Wetland Scientists*. July 7 – 11. Norfolk, VA.
- Wainright, S.C., Able, K.W., **Litvin, S.Y.**, Studholme, A.L., and A. Calabrese. 1997. Trophic Linkages Between Different Estuarine Habitats and Juvenile Winter Flounder, as Determined Using Stable Isotope Ratios. *Estuarine Research Federation Biannual Meeting*. October 12-16. Providence, RI.
- Litvin, S.Y.**, Wainright, S.C., Able, K., Phelan E., Periera, J., and Goldberg, R. 1996. Habitat Utilization by Young of the Year Winter Flounder and Tautog as Indicated by Stable Isotope Ratios. *American Society of Ichthyologists & Herpetologists Annual Meeting*. June 13-19. New Orleans, LA.

- Litvin, S.Y.**, Wainright, S.C., Able, K., Phelan E., Periera, J., and Goldberg, R. 1996. Habitat Utilization by Young of the Year Winter Flounder and Tautog and Inter-Estuary Differences as Indicated by Stable Isotope Ratios. *New England Estuarine Research Society*. May 10-11. Poughkeepsie, NY
- Litvin, S.Y.**, Wainright, S.C., Able, K., Phelan E., Periera, J., and Goldberg, R. 1995. Habitat Utilization by Young of the Year Winter Flounder and Tautog as Indicated by Stable Isotope Ratios. *Estuarine Research Federation Biannual Meeting*. November 12-16. Corpus Christi, TX.
- Litvin, S.Y.** 1995. Stable Isotopes as an Indicator of Habitat Utilization. *Princeton/Rutgers Graduate Student Seminar in Ecology and Evolution*. October 7. Princeton, NJ.
- Litvin, S.Y.** and S.C. Wainright. 1994. Habitat Utilization by Juvenile Winter Flounder as Indicated by Stable Isotope Ratios. *Flatfish Biology Workshop*. December 6-7. Mystic, CT.

#### **TECHNICAL REPORTS**

- Noji, I.M., **Litvin, S.Y.**, Weinstein, M.P., Danko, M.J., Jurtenbach, J.P. and D.A. Adams. 2004. Assessing the Ecological Condition of Barnegat Bay-Little Egg Harbor: A Preliminary Comparison of Multimetric and Multivariate Condition Indices Based on Data from the EPA National Coastal Assessment.
- Litvin, S.Y.**, Guida, V.G., and M.P. Weinstein. 2001. A Comparison of the Nutritional Status of Juvenile Weakfish, *Cynoscion regalis*, From Restored and Relatively Undisturbed Tidal Salt Marshes (Year 2). PSEG Estuary Enhancement Program.
- Litvin, S.Y.**, Guida, V.G., and M.P. Weinstein. 2000. A Comparison of the Nutritional Status of Juvenile Weakfish, *Cynoscion regalis*, From Restored and Relatively Undisturbed Tidal Salt Marshes (Year 1). PSEG Estuary Enhancement Program.
- Weinstein, M.P., **Litvin, S.Y.**, Wainright, S.C., Bosley, K.L., and C.M. Fuller. 1999. Stable Isotope and RNA-DNA Analysis of Juvenile Fish in Open Bay and Tidal Marsh Habitats of Delaware Bay. PSEG Estuary Enhancement Program.

#### **PROFESSIONAL SERVICE**

- Co-Editor**, Special Issue: *Phragmites australis*: A Sheep in wolf's clothing? *Estuaries* 26(2B), April 2003.
- Reviewer**, Transactions of the American Fisheries Society, *Estuaries and Coasts*
- Steering Committee**, Concepts and Controversies in Tidal Marsh Ecology, an International Symposium. April 5-9, 1998. Vineland, NJ.
- Treasurer/Co- Founder**, Oceanography Graduate Student Organization, Rutgers, The State University (2002-2003)
- Member**, Citizens Advisory Committee, New York/New Jersey Harbor Estuary Program. (1997 – 1999)
- Moderator/Judge**, Ocean Science Bowl, North Jersey Region Science Fair and Reading/Berks Science Fair

#### **PROFESSIONAL MEMBERSHIPS**

- American Fisheries Society  
 Ecological Society of America  
 Estuarine Research Federation  
 Society for Conservation Biology