

Lewis S. Incze
Curriculum Vitae

Education

Cornell University, Ithaca, NY	Biology	B.S.	1976
University of Maine, Orono, ME	Oceanography	MS	1979
University of Washington, Seattle, WA	Fisheries	Ph.D.	1983

Appointments

2011-present	Research Professor, School of Marine Sciences, University of Maine, Darling Marine Center, Walpole, ME
2011-2013	Program Officer (rotator), Biological Oceanography Program, National Science Foundation, Arlington, VA
2002-2010	Professor of Environmental Sciences, Graduate Professor, and Director, Aquatic Systems Group, University of Southern Maine, Portland, ME
1987-2002	Research Scientist (1987-2002) and Director (1991-1994), Bigelow Laboratory for Ocean Sciences, East Boothbay, ME
1985-1987	Scientist, Pacific Marine Environmental Laboratory and Northwest and Alaska Fisheries Science Center, NOAA, Seattle, WA
1983-1985	Post-doctoral Fellow, Northwest and Alaska Fisheries Science Center/NOAA, Seattle, WA

Refereed Publications

Jordaan, A, MG Frisk, LS Incze, NH Wolff, L Hamlin, Y Chen. 2013. Multivariate dissemination of species relationships for use in marine spatial planning. *Can. J. Fish. Aquat. Sci.* 70(2): 316-329, doi: 10.1139/cjfas-2011-0516

Lawton, P, LS Incze, SL Ellis. 2012. Representation of biodiversity knowledge within ecosystem-based management approaches for the Gulf of Maine. *Amer. Fish. Soc. Sympos.* 79: 375-391.

Pitcher CR, P Lawton, N Ellis, SJ Smith, LS Incze, C-L Wei, ME Greenlaw, NH Wolff, JA Sameoto, PVR Snelgrove. 2012. Exploring the role of environmental variables in shaping patterns of seabed biodiversity composition in regional-scale ecosystems. *Journal of Applied Ecology* 2012, 49, 670–679, doi: 10.1111/j.1365-2664.2012.02148.x

Ellis, SL, LS Incze, P Lawton, H Ojaveer, BR MacKenzie, CR Pitcher, TC Shirley, M Eero, JW Tunnell Jr., PJ Doherty, BM Zeller. 2011. Four regional marine biodiversity studies: Approaches and contributions to Ecosystem-Based Management. PLoS ONE 6(4):18997 doi:10.1371/journal.pone.0018997.

Johnson, CL, JA Runge, KA Curtis, EG Durbin, JA Hare, LS Incze, J Link, GD Melvin, TD O'Brien, LV Guelpen. 2011. Biodiversity and ecosystem function in the Gulf of Maine: Pattern and role of zooplankton and pelagic nekton. PLoS ONE doi: 10.1371/journal.pone.0016491

Li, WKW, RA Andersen, DJ Gifford, LS Incze, JL Martin, CH Pilskaln, JN Rooney-Varga, ME Sieracki, WH Wilson, NH Wolff. 2011. Planktonic microbes in the Gulf of Maine area. PLoS ONE 6(6): e20981. doi:10.1371/journal.pone.0020981

Incze, LS, P Lawton, SL Ellis and NH Wolff. 2011. Biodiversity knowledge and its application in the Gulf of Maine Area. Chapter 3 In: (McIntyre, Ed.) Marine Life: Diversity, Abundance and Distribution, Wiley-Blackwell.

Fautin, D., P. Dalton, L. S. Incze, J-A. C. Leong, C. Pautzke, A. Rosenberg, P. Sandifer, G. Sedberry, J.W. Tunnell, Jr., I. Abbott, R. E. Brainard, M. Brodeur, L. G. Eldredge, M. Feldman, P. S. Vroom, M. Wainstein, N. Wolff. 2011. An overview of marine biodiversity in United States waters. PloS- One 5(8): e11914 doi: 10.1371/journal.pone.0011914

Incze, LS, H Xue, N Wolff, D Xu, C Wilson, R Steneck, R Wahle, P Lawton, N Pettigrew, Y Chen. 2010. Connectivity of lobster populations in the Gulf of Maine. Part II. Coupled biophysical dynamics. Fish. Oceanogr. 19: 1-20, doi 10.1111/j.1365-2419.2009.00522.x

Wahle, RA, JS Cobb, LS Incze, P Lawton, M Gibson, R Glenn, C Wilson, J Tremblay. 2010. The American lobster settlement index at 20 years: looking back—looking forward. J. Mar. Biol. Assoc. India 52: 180-188.

Palumbi, SR, PA Sandifer, JD Allan, MW Beck, DG Fautin, MJ Fogarty, BS Halpern, LS Incze, J-A Leong, E Norse, JJ Stachowicz, DH Wall. 2009. Managing for ocean biodiversity to sustain marine ecosystem services. Frontiers Ecol. Environment 7, doi: 10.1890/070135

Manning, JP, DJ McGillicuddy Jr., NR Pettigrew, JH Churchill, LS Incze. 2009. Drifter observations of the Gulf of Maine Coastal Current. Cont. Shelf Res. 29: 835-845.

Xue, H, LS Incze, D Xu, N Wolff, N Pettigrew. 2008. Connectivity of lobster populations in the coastal Gulf of Maine. Part I: Circulation and larval transport potential. Ecol. Model. 210: 193-211.

Fogarty, MJ, LS Incze, K Hayhoe, D Mountain, J Manning. 2008. Potential climate change impacts on Atlantic cod (*Gadus morhua*) off the northeastern USA. *Mitig. Adapt. Strat. Global Change*. 13:453-466.

Stevick, PT, LS Incze, SD Kraus, S Rosen, N Wolff, A Baukus. 2008. Trophic relationships and oceanography on and around a small offshore bank. *Mar. Ecol. Progr. Ser.* 363: 15-28.

Lough, RG, EA Broughton, LJ Buckley, LS Incze, K Pehrson Edwards, R Converse, Aretxabaleta, FE Werner. 2006. Modeling growth of Atlantic cod larvae on the southern flank of Georges Bank in the tidal-front circulation during May 1999. *Deep-Sea Res. II*. 53: 2771-2788

Incze, LS, N.Wolff and R Wahle. 2003. Can scientific observations of early life stages be scaled up to the level of a fished population? A case study using *Homarus americanus*. *Fish. Res.* 65: 33-46.

Annis, ER, LS Incze, N Wolff, RS Steneck. 2007. Estimates of in situ larval development time for the lobster, *Homarus americanus*. *J. Crust. Biol.* 27: 454-462.

Incze, LS, RA Wahle, N Wolff, C Wilson, R Steneck, E Annis, P Lawton, H Xue and Y Chen. 2007. Early life history and a modeling framework for lobster populations in the Gulf of Maine. *J. Crustacean Biol.*

Lough, RG, EA Broughton, LJ Buckley, LS Incze, K Pehrson Edwards, R Converse, A Aretxabaleta, FE Werner. 2006. Modeling growth of Atlantic cod larvae on the southern flank of Georges Bank in the tidal-front circulation during May 1999. *Deep-Sea Res. II*. 53: 2771-2788

Wahle, RA, LS Incze and MJ Fogarty. 2004. First projections of American lobster recruitment using a settlement index. *Bull. Mar. Sci.* 74: 101-114.

National Research Council. 2004. Atlantic Salmon in Maine. National Academy Press, Washington, D.C. 275 p. (one of 13 co-authors)

Incze, LS, N.Wolff and R Wahle. 2003. Can scientific observations of early life stages be scaled up to the level of a fished population? A case study using *Homarus americanus*. *Fish. Res.* 65: 33-46.

National Research Council. 2002. Genetic Status of Atlantic Salmon in Maine. National Academy Press, Washington, D.C. 62 p. (one of 13 co-authors)

Incze, LS, D Hebert, N Wolff, N Oakey, D Dye. 2001. Changes in copepod distributions associated with increased turbulence from wind stress. *Mar. Ecol. Progr. Ser.* 213: 229-240.

Incze, LS, RA Wahle, AT Palma. 2000. Advection and settlement rates in a benthic invertebrate: Recruitment to first benthic stage in *Homarus americanus*. ICES J. Mar. Sci. 57: 430-437.

Incze, LS and CE Naimie. 2000. Modeling the transport of lobster (*Homarus americanus*) larvae and postlarvae in the Gulf of Maine. Fish. Oceanogr. 9: 99-113.

Incze, LS, P Aas, T Ainaire and M Bowen. 2000. Neustonic postlarval lobsters, *Homarus americanus*, in the western Gulf of Maine: Spatial and interannual variations. Can. J. Fish. Aquat. Sci. 57: 1-11.

Incze, LS and KM Bailey. 1998. Oceanography and localized fishery stocks: Possible mechanisms. Pp. 31-37 In: The Implications of Localized Fishery Stocks (H. von Herbing, I. Kornfield, M. Tupper and J. Wilson, eds.). Natural Resources, Agriculture and Engineering Service, Cornell University, Ithaca, NY, 200 p.

Incze, LS, RA Wahle and SJ Cobb. 1997. Quantitative relationships between postlarval production and benthic recruitment in lobsters, *Homarus americanus*. J. Freshwater Mar. Sci. 48: 729-743.

Wahle, RA and LS Incze. 1997. Pre- and post-settlement processes in recruitment of the American lobster, *Homarus americanus*. J. Exp. Mar. Biol. Ecol. 217: 179-207.

Incze, LS, DW Siefert and JM Napp. 1997. Mesozooplankton of the Alaska Coastal Current: Abundance and community composition. Cont. Shelf Res. 17: 287-305.

Incze, LS, P Aas and T Ainaire. 1996. Distributions of copepod nauplii and turbulence on the southern flank of Georges Bank: Implications for feeding by larval cod (*Gadus morhua*). Deep-Sea Res. II, 43: 1855-1873.

Napp, JM, LS Incze, PB Ortner, DL Siefert and L Britt. 1996. The plankton of Shelikof Strait, Alaska: Standing stock, production, mesoscale variability and their relevance to larval fish survival. Fish. Oceanogr. 5: 19-38.

Incze, LS and T Ainaire. 1994. Distribution and abundance of copepod nauplii and other small (40-300 μm) zooplankton during spring in Shelikof Strait, Alaska. Fish. Bull. 92: 67-78.

Kendall, AW Jr., LS Incze, PB Ortner, S Cummings, and PK Brown. 1994. Vertical distribution of walleye Pollock (*Theragra chalcogramma*) eggs and larvae in Shelikof Strait, Alaska. Fish. Bull. 92: 540-554.

Vastano, AC, LS Incze, and JD Schumacher. 1992. Observation and analysis of fishery processes: Larval Pollock at Shelikof Strait, Alaska. Fish. Oceanogr. 1: 20-30.

Incze, LS and RA Wahle. 1991. Recruitment from pelagic to early benthic phase in lobsters *Homarus americanus*. Mar. Ecol. Progr. Ser. 79: 77-87.

Canino, MF, KM Bailey, and LS Incze. 1991. Temporal and geographic differences in feeding and nutritional condition of larval walleye Pollock, *Theragra chalcogramma*, in Shelikof Strait, Alaska. *Mar. Ecol. Progr. Ser.* 79: 27-35.

Incze, LS, PB Ortner and JD Schumacher. 1990. Microzooplankton, vertical mixing and advection in a larval fish patch. *J. Plankton Res.* 12: 365-379.

Reed, RK, LS Incze, and JD Schumacher. 1989. Estimation of the effects of flow on dispersion of larval Pollock (*Theragra chalcogramma*) in Shelikof Strait, Alaska. In: *Effects of Ocean variability on Recruitment and an Evaluation of Parameters Used in Stock Assessment Models* (RJ Beamish and GA McFarlane, Eds.). *Can. Spec. Publ. Fish. Aquat. Sci.* 108: 239-246.

Incze, LS, AW Kendall, Jr., JD Schumacher and RK Reed. 1989. Interactions of a mesoscale patch of larval fish (*Theragra chalcogramma*) with the Alaska Coastal Current. *Cont. Shelf Res.* 9: 269- 284.

Reed, RK, JD Schumacher and LS Incze. 1987. Circulation in Shelikof Strait, Alaska. *J. Phys. Oceanogr.* 17: 1546-1554.

Incze, LS, DA Armstrong and SL Smith. 1987. Abundance of larval Tanner crabs (*Chionoecetes* spp.) in relation to adult females and regional oceanography of the Southeastern Bering Sea. *Can. J. Fish. Aquat. Sci.* 44: 1143-1156.

Bailey, KM and LS Incze. 1985. El Niño and the early life history of recruitment of fishes in temperate marine waters. Pp. 143-165 In: *El Niño North* (WS Wooster and DL Fluharty, Eds.). Washington Sea Grant, Univ. Washington, Seattle

Incze, LS, DL Wencker and DA Armstrong. 1984. Growth and average growth rates of Tanner crab zoeae collected from the plankton. *Mar. Biol.* 84: 93-100.

Incze, LS and AJ Paul. 1983. Grazing and predation as related to energy needs of Stage I zoeae of the Tanner crab *Chionoecetes bairdi* (Brachyura, Majidae). *Biol. Bull.* 165: 197-208.

Incze, LS, DA Armstrong and DL Wencker. 1983. Rates of development and growth of larvae of *Chionoecetes bairdi* and *C. opilio* in the Southeastern Bering Sea. Pp. 191-218 In: *International Symposium on the Genus Chionoecetes*. 792 p. Alaska Sea Grant Rep. 82-10, Univ. Alaska, Fairbanks.

Wencker, DL, LS Incze and DA Armstrong. 1983. Distinguishing between *Chionoecetes bairdi* and *C. opilio* zoeae collected in the southeastern Bering Sea. Pp. 219-230 In: *International Symposium on the Genus Chionoecetes*. 792 p. Alaska Sea Grant Rep. 82-10, Univ. Alaska, Fairbanks.

Incze, LS, LM Mayer, EB Sherr and SA Macko. 1982. Carbon inputs to bivalve mollusks: A comparison of two estuaries. *Can. J. Fish. Aquat. Sci.* 39: 1348-1352.

Incze, LS, RA Lutz and E True. 1981. Modeling carrying capacities for bivalve molluscs in open, suspended-culture systems. *J. World Mar. Soc.* 12: 141-155.

Incze, LS and CM Yentsch. 1981. Stable density fronts and dinoflagellate patches in a tidal estuary. *Estuarine Coastal Shelf Sci.* 13: 547-556.

Incze, LS, R Lutz and L Watling. 1980. Relationships between effects of environmental temperature and seston on growth and mortality of *Mytilus edulis* in a temperate northern estuary. *Mar. Biol.* 57: 147-156.

Incze, LS and RA Lutz. 1980. Mussel Culture: An East Coast Perspective. Pp. 99-140 In: *Mussel Culture and Harvest: A North American Perspective* (RA Lutz, Ed.). Elsevier, New York

Yentsch, CM and LS Incze. 1980. Accumulation of algal biotoxins in mussels. Pp. 223-246 In: *Mussel Culture and Harvest: A North American Perspective* (RA Lutz, Ed.). Elsevier, New York

Recent Reports

2009 Maine's Climate Future: An Initial Assessment (Jacobson, GL, IJ Fernandez, PA Mayewski, CV Schmitt, Eds.). Contributing author, Chapter III, The Meaning of a Changed Environment: Initial Assessment of Climate Change in Maine (sections on "Gulf of Maine" and "Biodiversity") University of Maine, Orono, ME. 70 p.
www.climatechange.umaine.edu/mainesclimatefuture

2007 Confronting Climate Change in the U.S. Northeast: Science, Impacts and Solutions. Contributing author and co-lead of the marine section. Union of Concerned Scientists, Cambridge MA 146 p. www.northeastclimateimpacts.org

Synergistic activities

Twenty-five years of outreach to the public, educators, federal and state legislators, resource managers, NGOs, and fishing industry on environmental processes and human-natural system interactions and management

Founding chairman and 20 years of service to the Regional Association for Research on the Gulf of Maine