

Scott M. Gallager

Associate Scientist with tenure
Department of Biology
Woods Hole Oceanographic Institution
Clearance: Secret

Ph.D., Boston University, January, 1992. (Biology)

Dissertation Title: Feeding and Locomotion in Larvae of Marine Bivalve Molluscs

M.S., Long Island University, Department of Marine Science (Marine Science), 1977

B.A., Alfred University, Alfred, NY (Biology [pre-med] and Environmental Studies), 1974

Associate Scientist with tenure, Biology Department, Woods Hole Oceanographic Institution, 2001-present. Associate Scientist, Biology Department, Woods Hole Oceanographic Institution, 1996-2001. Office of Naval Research Young Investigator Award, 1996. Assistant Scientist, Biology Department, Woods Hole Oceanographic Institution, 1993-1996. Postdoctoral Research Associate, Biology Department, Dalhousie University, 1991-1993. Research Specialist, Biology Department, Woods Hole Oceanographic Institution, 1989-1992. Research Associate, Biology Department, Woods Hole Oceanographic Institution, 1980-1989. Instructor, Aquatic Veterinary Medicine, Marine Biological Lab., Nutrition in Mollusc Larvae, 1986-1995. Research Assistant, Biology Department, Woods Hole Oceanographic Institution, 1979-1980. Research Assistant, Harvard University, 1977-1979. Consultant, Columbia University, 1977-1978. Graduate Teaching/Research Assistant, Long Island University, 1976-1977. Instructor, General Biology, St. John's University, New York, 1974-1976, Undergraduate Assistant, Limnology, College Center of the Finger Lakes, 1972-1974. More than 135 publications in scientific journals

Nine Significant Publications

- Ashjian, CJ, CS Davis, SM Gallager, PH Wiebe, GL Lawson. 2008. Distribution of larval krill and zooplankton in association with hydrography in Marguerite Bay, Antarctic Peninsula, in austral fall and winter 2001 described using the Video Plankton Recorder. *Deep Sea Res.* (55, 3-4) 455-471
- Gallager, SM, H Singh, S Tiwari, J Howland, P Rago, W Overholtz, R Taylor and N Vine. 2005. High resolution underwater imaging and image processing for identifying essential fish habitat. Report of the National Marine Fisheries Service Workshop on Underwater Video analysis. DA Somerton and CT Glendill (eds) NOAA Technical Memorandum NMFS-F/SPO-68. pp. 44-54.
- Gallager, SM, H Yamazaki, CS Davis. 2004. The contribution of fine scale structure and swimming behavior to the formation of plankton layers on Georges Bank *Mar. Ecol. Prog. Series.* 267:27-43
- Gallager, S.M. JL Manuel, DA Manning and R. O'Dor. Ontogenetic changes in the vertical distribution of scallop larvae *Placopecten megellanicus* in 9 m-deep mesocosms as a function of light, food, and temperature stratification. *Mar Biol* 124:679-692
- Gallager, SM, CS Davis, AW Epstein, A Solow and R. Beardsley. 1996 High-resolution observations of plankton distributions correlated with hydrography in the Great South Channel, Georges Bank. *Deep Sea Research (Part 2, Topical Studies in Oceanography)* 43(7-8): 1627-1664.
- Taylor, R, NH Vine, AD York, S Lerner, D Hart, J Howland, L Prasad, L Mayer, and SM Gallager. Evolution of a Benthic Imaging System From a Towed Camera to an Automated Habitat Characterization System. *IEEE Oceans* 08. 10 pp.

- Rosenkrantz, G, SM Gallagher, R Shepard, M Blakeslee. 2008. Development of a high-speed, megapixel benthic imaging system for coastal fisheries research in Alaska. *Fisheries Research* 92(2008)340-344
- York, AD, R Taylor, N Vine, S Lerner, S Gallagher. 2008. Using a towed optical habitat mapping system to monitor the invasive *Didemnum vexillum* along the Northeast Continental Shelf. *IEEE Oceans08*, 10pp.
- Gallagher, SM, S Lerner, AD York, E Miller, and A Girard. 2008 Design, Installation, and Operation of the PLUTO Observatory, Isla de Canales de Tierra, Panama. *IEEE Oceans08*, 10pp

Four Other Publications

- Ashjian, CJ, CS Davis, SM Gallagher, PA Alatalo. 2001 Distribution of plankton, particles, and hydrographic features across Georges Bank described using the Video Plankton Recorder. *Deep Sea Res II* 48:245-282
- Daly, K, Robert H. Byrne, Andrew G. Dickson, Scott M. Gallagher, Mary Jane Perry, and Margaret K. Tivey. Chemical and Biological Sensors for Time-Series Research: Current Status and New Directions. *Marine Technology Society*. 38(2):121-143
- Davis, C., S.M. Gallagher and A. Solow. 1992. Microaggregations of oceanic plankton observed by towed video microscopy. *Science* 257: 230-232.
- Davis, CS, Hu, Q, SM Gallagher, x Tang, C Ashjian. 2004 Real-time observation of taxa-specific plankton abundance: An optical sampling method. *Mar. Ecol. Progr. Series* 284:77-96.

Synergistic Activities: Gallagher's research focuses on the functional morphology and biophysics of locomotion and feeding in microplankton, meroplankton, holoplankton, and ichthyoplankton including understanding the importance of early life history stages in recruitment success in fish and shellfish. Development of instrumentation for quantifying the micro-scale to meso-scale distributions and the physical environment of plankton and benthic organisms is central to his research objectives. Gallagher is the recipient of an ONR Young Investigator Award and has co-chaired various workshops on instrument development and most recently the workshop on The Next Generation of Biological and Chemical Sensors in Oceanography held at WHOI. He is Chair of the ORION/OOI Sensors Committee and Chair of the IOOS NERACOOS Ecosystems Plan Development Team

Associates and Collaborators in the Last Five Years: C. Ashjian (WHOI), B. Beardsley (WHOI), C Davis (WHOI), P Wiebe (WHOI), L Madin (WHOI), W. McGillis (WHOI), A. Bradley (WHOI), H Yamazaki (Tokyo University of Fisheries), Vernon Asper USM

Graduate Advisors: Ivan Valiela, JR Strickler (BUMP)

Graduate Students Advised in the Last Five Years: James Ruzkia (WHOI/MIT), Heidi Fuchs (WHOI/MIT), Lisa Gardner (WHOI/MIT), Christine Mingione (WHOI/MIT), Michael Holcum (WHOI/MIT), Andrew McDonnel (WHOI/MIT)

Postdoctoral Investigators Sponsored in the Last Five Years: Ione von Herbing (UMaine), Jeff van Keuren (URI)