

SCOTT M. GALLAGER

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

EDUCATION

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 Sciences
(Marine Science), 1977
B.A., Alfred University, Alfred, NY (Biology [pre-med] and Environmental Studies), 1974

PROFESSIONAL EXPERIENCE

Associate Scientist with Tenure, Biology Department, Woods Hole Oceanographic Institution,
2001-present
Associate Scientist, Biology Department, Woods Hole Oceanographic Institution,
1996-2001
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,

SOCIETIES

Member, American Association for the Advancement of Science
Member, American Society of Zoologists
Member, American Society of Limnology and Oceanography

RESEARCH INTERESTS:

S. 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 fishes, and optimizing culture techniques of microbial communities, particularly microplankton. Development of instrumentation for quantifying the micro-scale to meso-scale distributions and the physical environment of plankton is central to his research objectives. He is an active participant in the IOOS initiative to develop oceanographic observatories throughout the northeast and has recently been funded to install OceanCubes cabled observatories off Motobu Point, Okinawa, Japan, Oshima Island, Japan, and both sides of the Panamanian Isthmus (oceancubes.whoi.edu). Large scale benthic imaging in stereo is providing an important view of multi-scale processes from mm to 1000s of km. Habitat suitability modeling allows us to view and quantify how organisms are distributed in reference to their physical and geochemical environment. The goal is to combine information acquired at these scales into a synoptic, dynamic picture of the coastal ecosystem and the organisms that it supports.

AWARDS AND PROFESSIONAL ACTIVITIES

2013-present Chair: Benthic working group, NERACOOS
2009-2012 Chair: Coastal Ocean and Ecosystem Health working group for IOOS/NERCOOS
2005-2007 Chair, ORION/OOI Sensors Advisory Committee
2003-2004 Vice Chair, Tenured Scientists Executive Committee
1998-present Member, Technical Staff Evaluation Committee
2002-2003 Member, Advisory Committee to the Ocean Life Institute
2003 Co-Chair: Workshop on the Next Generation of in situ Biological and Chemical Sensors in the Ocean
2001-2004 Member WHOI Tenured Scientist Executive Committee
1998-present Member: working group to define NOAA's needs for advanced instrumentation in fisheries recruitment studies
1996-1999 Member: NW Atlantic GLOBEC Executive Committee
1996 Office of Naval Research Young Investigator Award: Coupling Behavior and Vertical Distribution of Pteropods in Coastal Waters using data from the VPR
1995-present Chief Scientist on 32 research cruises since 1995
1993 Program Chairman: Larval Biology Workshop, Special Session on Georges Bank SUNY Stony Brook, Aug. 1993
1993 Member: Cod and Climate Change International Working Group
1990-1993 Member: Technical/Scientific Advisory Board, NRAC.
1981-present Reviewer: Limnol. Oceanogr., Deep Sea Res., Mar. Biol., J. Plankton Res., NOAA, NSF, DOE, Hudson River Foundation, other private foundations.
1987-1990. Graduate Research Scholarship. Boston University.
1976 Graduate Teaching Assistantship - Long Island University.
More than 65 seminars or talks given at WHOI since 1981
More than 75 seminars given nationally or internationally since 1981

REFEREED PUBLICATIONS

1980 Gallagher, S. M. and R. Mann. An apparatus of the measurement of grazing activity of

filter feeders at constant food concentrations. *Mar. Biol. Letters*, 1: 341-349.

- 1981 Gallagher, S. M. and R. Mann. The use of lipid specific staining to monitor condition of bivalve larvae in large scale cultures. *J. Shellfish Research*, 1, No. 1: 69-73.
- 1981 Gallagher, S. M. and R. Mann. The effect of varying carbon/nitrogen ratio in the Phytoplankter *Thalassiosira pseudonana* (3H) on its food value to the bivalve *Tapes japonica*. *Aquaculture* 26: 95-105.
- 1981 Gallagher, S. M., R. D. Turner, and C. J. Berg. Physiological aspects of wood consumption, growth, and reproduction in the shipworm *Lyrodus pedicelatus* Quatrephages (Bivalvia:Teredinidae). *J. of Exp. Mar. Biol. and Ecology*, 52(1): 63-77
- 1984 Mann, R. and S. M. Gallagher. Physiology of the Wood Boring Mollusc *Martesia cuneiformis* say. *Biol. Bull.*, 166(1): 167-177
- 1985 Mann, R. and S. M. Gallagher. Physiological and biochemical energetics of larvae of *Teredo navalis* L. and *Bankia gouldi* (Bartsch) (Bivalvia:Teredinidae). *J. Exp. Mar. Biol. Ecol.* 85(2): 211-228
- 1985 Mann, R. and S. M. Gallagher. Growth, morphometry and biochemical composition of the wood boring molluscs *Teredo navalis* L., *Bankia gouldi* (Bartsch) and *Nototeredo knoxi* (Bartsch) (Bivalvia:Teredinidae). *J. Exp. Mar. Biol. Ecol.* 85(2): 229-251.
- 1986 Gallagher, S. M., R. Mann, and G. L. Sasaki. Lipid as an index of growth and viability in three species of bivalve larvae. *Aquaculture*. 56(2): 81-103.
- 1986 Gallagher, S. M. and R. Mann. Growth and survival of larvae of *Mercenaria mercenaria* (L.) and *Crassostrea virginica* (Gmelin) relative to lipid content of eggs and broodstock conditioning. *Aquaculture* 56(2): 105-121.
- 1987 Gallagher, S. M. and R. Mann. Individual variability in lipid content of bivalve larvae quantified histochemically by absorption photometry. *J. Plankton Research* 8(5): 927-937.
- 1988 Gallagher, S. M. Visual observations of particle manipulation during feeding in larvae of bivalve molluscs. *Bull. Mar. Sci.* 43(3): 344-365.
- 1988 Fraga, S., S. M. Gallagher and D. M. Anderson. Chain forming dinoflagellates: An adaptation for red tide formation. In: *Red Tides: Biology, Environmental Science and Toxicology*, Okaichi, Anderson and Nemoto (eds) Elsevier Publ. Co., Inc. pp. 281-284.

- 1989 Gallagher, S. M., J. P. Bidwell and Alan M. Kuzirian. Strontium is required in artificial seawater for embryonic shell formation in two species of bivalve molluscs. In: *Origin, History and Modern Aspects of Biomineralization in Plants and Animals*, R. Crick (ed.), Proceedings of the Fifth International Symposium on Biomineralization, Arlington, Texas. Plenum Press, 23 pp.
- 1990 Gallagher, S.M., V. M. Bricelj and D. K. Stoecker. Effects of the brown tide alga on growth, feeding physiology and locomotory behavior of scallop larvae (*Argopecten irradians*). In: *Novel Phytoplankton Blooms: Causes and Impacts of Recurrent Brown Tides and Other Unusual Blooms*, Coastal and Estuarine Studies. Springer-Verlag, NY.
- 1990 Solow, A.R. and S.M. Gallagher. Analysis of capture efficiency in suspension feeding: application of nonparametric binary regression. *Marine Biology* 107(2):341-344.
- 1991 Newell, CR, SM Gallagher. A time-lapse video benthic monitoring (TLBM) device to estimate feeding activity in mussels: Initial field results. *Journal of Shellfish Research* 10(1): 282-283
- 1992 Davis, C., S.M. Gallagher, M. Berman, L.R. Haury and J.R. Strickler. The video plankton recorder (VPR): design and initial results. *Arch. für Hydrobiol.* 36: 82-100.
- 1992 Schulze, P., R. Strickler, B. Bergstrom, B., M. Berman, P. Donaghay, S. Gallagher, J. Haney, B. Hargreaves, U. Kils, G. Paffenhofer, S. Richman, H. Vanderploeg, W. Welsch, and D. Wethey, J. Yen. Video systems for in situ studies of zooplankton. *Arch. für Hydrobiol.* 36: 1-21.
- 1992 Davis, C., S.M. Gallagher and A. Solow. Microaggregations of oceanic plankton observed by towed video microscopy. *Science* 257: 230-232.
- 1992 Krueger, D. S.M. Gallagher and C. Cavanaugh. Suspension feeding on phytoplankton by *Solemya velum*, a symbiont-containing clam. *Marine Ecology Progress Series*. 86(2): 145-151
- 1993 Gallagher, S.M. Hydrodynamic disturbances produced by small zooplankton: a case study for veliger larvae of bivalve molluscs. *J. Plankton Res.* 15(11): 1277-1296
- 1994 Gallagher, S. M., D.K. Stoecker and J. B. Waterbury. Efficient grazing and utilization of the marine cyanobacterium *Synechococcus* sp. by larvae of a bivalve mollusc. *Mar Biol.* 119(2):251-260.
- 1994 Pearce, CM; O'Dor, RK; Gallagher, SM; Manuel, JL; Manning, DA; Bourget, E Settlement and metamorphosis of sea scallop (*Placopecten magellanicus*) larvae in 9-m deep mesocosms *Bull. Aquacult. Assoc. Canada* 94(2): 12-14

- 1995 Stoecker, DK, SM Gallagher, CJ Langdon, and LH Davis. Particle capture by *Favella* sp. (Ciliata, Tintinnida) J. Plankton Research 17(5):1105-1124
- 1996 Gallagher, S.M. JL Manuel, DA Manning and R. O'Dor. Ontogenetic changes in the vertical distribution of scallop larvae *Placopecten magellanicus* in 9 m-deep mesocosms as a function of light, food, and temperature stratification. Mar Biol 124:679-692
- 1996 Gallagher, S.M. Ciliary suspension-feeding and particle selection in mollusc larvae Journal of Shellfish Research 15(2) p. 506-510
- 1996 Pearce, CM, RK O'Dor, SM Gallagher, DA Manning, E Bourget. Settlement of sea scallop *Placopecten magellanicus* larvae in 9 m deep mesocosms as a function of food distribution, thermoclines, depth, and substratum. Mar Biol 124(4): 693-706
- 1996 Gallagher, SM, CS Davis, AW Epstein, A Solow and R. Beardsley. 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.
- 1996 Norrbin MF, CS Davis and SM Gallagher. Differences in fine-scale structure and composition of zooplankton between mixed and stratified regions of Georges Bank. Deep Sea Research (Part 2, Topical Studies in Oceanography) 43(7-8): 1905-1946
- 1996 Benfield, MC, CS Davis, PH Wiebe, SM Gallagher, RG Lough, and N Copley. Video plankton recorder estimates of copepod, pteropod and larvacean distributions from a stratified region of Georges Bank with comparative measurements from a MOCNESS sampler. Deep-Sea Research (Part 2, Topical Studies in Oceanography) 43(7-8): 1925-1945
- 1996 Davis, CS, SM Gallagher, M Marra, and WK Stewart. Rapid visualization of plankton abundance and taxonomic composition using the Video Plankton Recorder. Deep Sea Research 43(7-8): 1947-1970
- 1996 Manuel, J., Gallagher, S.M., Manning, D.A. and O'Dor, R.K. Veligers from different populations of sea scallop *Placopecten magellanicus* have different vertical migration patterns. Mar. Ecol. Prog. Ser. 142(1): 147-163.
- 1998 Waite, A, SM Gallagher and H Dam. New measurements of phytoplankton aggregation in a flocculator using videography and image analysis Mar. Ecol. Progr. Ser. 155:77-88

- 1998 Benfield, MC, PH Wiebe, TK Stanton, CS Davis, SM Gallagher and CH Green. Estimating the spatial distribution of zooplankton biomass by combining video plankton recorder and single-frequency acoustic data. *Deep-Sea Research (Part 2, Topical Studies in Oceanography)* 45(7): 1175-1199
- 1998 Sieracki, ME, DJ Gifford, SM Gallagher and CS Davis. Ecology of *Chaetoceros socialis* Lauder Patch on Georges Bank: Distribution, microbial associations, and grazing losses. *Oceanography* (11):30-35
- 1998 Newell CR, DE Campbell, SM Gallagher. 1998. Development of the mussel aquaculture lease site model MUSMOS: a field program to calibrate model formulations. *J Exp Mar Biol Ecol* 219:143-169
- 1998 Pearce, CM, SM Gallagher, DA Manning, RK O'Dor, E Bourget. Effect of thermoclines and turbulence on depth of larval settlement and spat recruitment of the giant scallop *Placopecten magellanicus* larvae in 9 m-deep laboratory mesocosms *Mar. Ecol. Progr. Ser.* 165:195-215
- 1998 Tang X, Stewart K, Vincent L, Huang H, Marra M, Gallagher SM, Davis CS. Automatic plankton image recognition. *Artificial Intelligence Review* 12(1-3): 177-199
- 1998 Benfield, MC, PH Wiebe, TK Stanton, CS Davis, SM Gallagher and CH Green. Estimating the spatial distribution of zooplankton biomass by combining the data from Video Plankton Recorder and single-frequency acoustic data *Deep Sea Res. II* 45(7):1175-1199
- 2000 Von Herbing, I and SM Gallagher. Foraging behavior in early Atlantic cod larvae (*Gadus morhua*) feeding on a protozoan (*Balanion sp.*) and a copepod nauplius (*Pseudodiaptomus sp.*) *Marine Biology* 136:591-602.
- 2000 Benfield, MC, CS Davis, SM Gallagher. Estimating the in-situ orientation of *Calanus finmarchicus* on Georges Bank using the Video Plankton Recorder. *Plankton Biol. Ecol.* 47(1):69-72
- 2001 Ashjian, CJ, CS Davis, SM Gallagher, PA Alatalo. Distribution of plankton, particles, and hydrographic features across Georges Bank described using the Video Plankton Recorder. *Deep Sea Res II* 48:245-282
- 2001 Bollens, SM, E Horgan, S Concelman, LP Madin, SM Gallagher, M Butler. Planktonic hydroids on Georges Bank: Effects of mixing and food supply on feeding and growth. *Deep Sea Res II.* 48:659-672
- 2002 Dennett, MR, DA Caron, AE Michaels, M Church, P. Countway, SM Gallagher and CS Davis. Video Plankton Recorder reveals high abundances of colonial radiolaria in surface waters of the Central North Pacific. *J Plankton Research* 24(8):797-805

- 2003 Tiwari, S. and SM Gallager. Machine learning and multiscale methods in the identification of bivalve larvae. Proc. 9th International Conference on Computer Vision, Beijing, China.
- 2003 Tiwari, S and SM Gallager. 2003. Optimizing multiscale invariants for the identification of bivalve larvae. Proceedings of the 2003 IEEE International Conference on Image Processing, Barcelona, Spain, September 14--17, 2003
- 2003 Von Herbing, I, SM Gallager and William Halteman. Metabolic costs of pursuit and attack in early larval Atlantic Cod. Mar. Ecol. Progr. Ser.
- 2004 Gallager, SM. H Yamazaki, CS Davis. 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
- 2004 Pearce, C.M., Gallager, S.M., Manuel, J.L., Manning, D.A., O'Dor, R.K. and Bourget, E. Depth and timing of settlement of larvae from different populations of giant scallop, *Placopecten magellanicus*, in thermally stratified mesocosms. J Experimental Marine Biology and Ecology 312(2004) 187-214.
- 2004 Ashjian, C, C Davis, SM Gallager, P Alatalo. Characterization of the zooplankton community, size composition, and distribution in relation to hydrography in the Japan/East Sea. Deep Sea Research.
- 2004 Lawson, G, P Wiebe, C Ashjian, S Gallager, C Davis. Acoustically-Inferred Zooplankton Distribution in Relation to Hydrography West of the Antarctic Peninsula. Deep Sea Research
- 2004 Davis, CS, Hu, Q, SM Gallager, x Tang, C Ashjian. 2004 Real-time observation of taxa-specific plankton abundance: An optical sampling method. Mar. Ecol. Progr. Series 284:77-96.
- 2004 Wiebe, p, C Ashjian, SM Gallager, CS Davis, GL Lawson, NJ Copley. Using a high powered strobe light to increase the catch of Antarctic krill, *Euphausia* spp. Mar Biol.
- 2004 Kendra L. Daly, Robert H. Byrne, Andrew G. Dickson, Scott M. Gallager, 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
- 2004 Davis, S, F. Thwaites, SM Gallager and Q. Hu. 2005. A three axis fast-tow Video Plankton Recorder for rapid surveys of plankton taxa and hydrography. L&O Methods 3:59-74

- 2005 Adamik, P, SM Gallagher, E Horgan, LP Madin, A Govindarajan, P Alatalo. Effects of turbulence on the feeding rate of a pelagic predator: the planktonic hydroid *Clytia gracilis*. Mar. Ecol. Progr. Series.
- 2005 Gallagher, SM, H Singh, S Tiwari, J Howland, P Rago, W Overholtz, R Taylor and N Vine. 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.
- 2006 Ashjian, CJ, G. Rosenwacks, PH Wiebe, CS Davis, SM Gallagher, NJ Copley, GL Lawson, P Alatalo. Distribution of zooplankton on the continental shelf of Marguerite Bay, Antarctic Peninsula during Austral Fall and Winter, 2001. DSR
- 2006 Gallagher, SM, V Asper, K von der Heydt, and G Packard. The bathymetry and benthic community structure off Palmer Station, Antarctica. Marine Geosciences Data Management.
- 2006 LAPIS: An imaging survey instrument for gelatinous zooplankton. L Madin, E Horgan, SM Gallagher, J Eaton, and A Girard. IEEE Oceans06, 10pp.
- 2006 Howland, Gallagher, Singh, Girard, Abrams, Griner. Development of a Towed, Ocean Bottom Survey Camera System for Deployment by the Fishing Industry. IEEE Oceans06, 10pp.
- 2006 Ruzicka, J, and SM Gallagher. The saltatory search behavior of larval cod (*Gadus morhua*), Deep Sea Research Part II Topical Studies in Oceanography 11/2006;
- 2007 Adamik, P, SM Gallagher, E Horgan, LP Madin, A Govindarajan, P Alatalo. Effects of turbulence on the feeding rate of a pelagic predator: the planktonic hydroid *Clytia gracilis*. Mar. Ecol. Progr. Series.
- 2008 Ashjian, CJ, CS. Davis, SM. Gallagher, PH. Wiebe, GL. Lawson1. 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 Research II 55 (2008) 455–471
- 2008 Rosenkrantz, G, SM Gallagher, R Shepard, M Blakeslee. Development of a high-speed, megapixel benthic imaging system for coastal fisheries research in Alaska. Fisheries Research 92(2008)340-344
- 2008 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.

- 2008 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. Digital Object Identifier : 10.1109/OCEANS.2008.5151994. Print ISBN: 978-1-4244-2619-5
- 2008 Taylor, R, NH Vine, AD York, S Lerner, D Hart, J Howland, L Prashad, L Mayer, and SM Gallagher. Evolution of a Benthic Imaging System From a Towed Camera to an Automated Habitat Characterization System. IEEE Oceans 08. 10 pp.
- 2012 Thompson, C, M Hare, S Gallagher. 2012. Semi-automated image analysis for the identification of bivalve larvae from a Cape Cod Estuary. L&O Methods 10:538-554
- 2012 Thompson, C, S Gallagher and R. York. 2012. Species-specific abundance of bivalve larvae in relation to biological and physical conditions in a Cape Cod estuary. Marine Ecology Progress Series. 469(53-69)
- 2013 Dawkins, M, C. Stewart, SM. Gallagher, AD York, "Automatic scallop detection in benthic environments," wacv, pp.160-167, 2013 IEEE Workshop on Applications of Computer Vision (WACV), 2013
- 2013 Howes, E.L., N. Bednaršek J. Büdenbender, S. Comeau, A. Doubleday, S. M.Gallagher, R. Hopcroft, S. Lischka, A. E. Maas, J Bijma, J-P Gattuso. 2013 Sink and swim, a status review of thecosome pteropod culture techniques. J. Plankton Research. 36(2):299-315
- 2014 Thompson CM, North EW, White SN, Gallagher SM (2014) An analysis of bivalve larval shell pigments using micro-Raman spectroscopy. J Raman Spectrosc 45:349–358
- 2015 Grossmann, MM, SM Gallagher and S. Mitarai, Continuous monitoring of near-bottom mesoplankton communities in the East China Sea during a series of typhoons. J. Oceanogr 71:115-124

IN PRESS

York, AD and SM Gallagher. Automated assessment of the invasive tunicate *Didemnum vexillum* on Georges Bank. Proceedings of the NOAA workshop on Image Processing. Publication date in review.

Gallagher SM and AD York. Habitat suitability modeling and assessment of accuracy on Georges Bank. Proceedings of the NOAA workshop on habitat assessment. In press: J. Fisheries Research.

Prasad, L, H Singh, and SM Gallagher. Edge texture-based cuing for detection of benthic camouflage. CVPR #2430

SUBMITTED or IN PREPARATION

Gallager, SM. M Grossman, S Mitari, H Yamazaki and Y Endo. Acantheria populations dominate Kiroshio plankton farther north than expected. For submission to J. Plankton Research.

Jiang, H, MD Johnson, SM Gallager. Jumping in cold water: Kinematics, energetics and computational fluid dynamics of spontaneous jumps in an Antarctic strain of the ciliate *Mesodinium rubrum*. Re-submitted to J. Plankton research.

Thompson, C, EW. North, SN. White, SM. Gallager. Classifying bivalve larvae using shell pigments identified by Raman spectroscopy. Submitted to Analytical and Bioanalytical Chemistry.

Patents

- 2008 Gallager, SM and S Tiwari. Optical method and system for rapid identification of multiple refractive index materials using multiscale texture and color invariants
US patent Number 7,415,136
- 2012 Gallager, SM. . Systems and methods for detecting toxins in a sample.
Patent Application
No. 11/804,462 Atty. Docket No. WHOC-P01-008. Pending
- 2014 Gallager, SM. Continuous Particle Imaging and Classification System (CPICS).
US Patent # 62,053,484

OTHER PUBLICATIONS

- 1971 Gallager, S. M. A Color T.V. You Can Build. Popular Mechanics, August, 1971.
- 1973 Gallager, S. M. Fun With Underwater Photography. Popular Mechanics, July, 1973.
- 1973 Gallager, S. M. Detection of DDT in the Food Chains of a Swamp in Watkins Glen, NY. National Science Foundation Student Originated Grant Proposal and Final Report. In: 1973 S.O.S. Review, Wash. D.C.
- 1981 Gallager, S. M. and R. Mann. Larval Bivalve Condition Index Based on Lipid Content Visualized with Lipid Specific Stains. ICES C.M./1981/F:20, Mariculture Committee.
- 1985 Turner, R. D., R. Mann, and S. M. Gallager. Advances in Molluscan Aquaculture. (Invited paper - Symposium on Marine Biology, India, January 1984).
- 1997 Van Keuren, J. S Gallager and P Alatalo. 1997. Factors critical to the foraging

- success of larval cod (*Gadus morhua*) on Georges Bank. ICES C.M. 1997.
- 1997 Quinlan, J. F.E. Werner, S Gallagher, R. G. Lough, L. J. Buckley 1997. Modeling the role of microzooplankton in the feeding environment of yolk-sac cod larvae. ICES C.M. 1997/T:15
- 1997 Ashjian, C. C Davis, S Gallagher and P Alatalo. 1997. Distribution of plankton and particles across Georges Bank during 1994-1995 GLOBEC cruises: Results of cross-bank surveys using the Video Plankton Recorder. ICES C.M. 1997.
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- 1998 Thwaites, FT, SM Gallagher, CS Davis, AM Bradley, A Girard, W Paul. 1998. A winch and cable for the autonomous vertically profiling plankton observatory. Oceans 98 -- Engineering for sustainable use of the oceans: conference proceedings 28 September - 1 October 1998, Nice (France)., IEEE/OES, Piscataway, NJ (USA), 1998, vol. 1, pp. 32-36

PRESENTATIONS AND ABSTRACTS:

- 1976 Gallagher, S. M. and R. Stalter. A Comparison of Arborescent Species of Alley Park, Queens County, New York. American Botanical Society, Spring, 1976.
- 1981 Gallagher, S. M., R. Barlow, Jr., and R. Mann. Non-invasive long term recording of shipworm boring activity. Bio. Bull. 161: 312.
- 1981 Turner, R.D. and S.M. Gallagher. An overview of research on marine borers and future direction. Presented at the Proceedings of the Symposium on Marine Biodeterioration, Bethesda, MD, April 20-23, 1981 Oral presentation shared with R.D. Turner.
- 1981 Prusch, R. D., S. M. Gallagher, and R. Mann. Net flux of Dissolved Amino Acids in Adult and Larvae of the Shipworm *Lyrodus pedicellatus*. Bio. Bull. 161: 315.
- 1981 Wright, A. E., C. M. Cavanaugh, S. M. Gallagher, R. Mann, and R. D. Turner. Preliminary Observations of Bacteria and Shipworms (Bivalvia: Teredinidae). Bio. Bull. 161: 332.
- 1981 Gallagher, S. M. and R. Mann. Lipid Specific Staining: A Visual Technique for Monitoring Condition of Bivalve Larvae. Second International Conference on Aquaculture Nutrition. University of Delaware Press. Special Publication No. 2: 432-433.
- 1982 Anmuth, C. D., S. M. Gallagher, R. Mann, and R. S. Alberte. Glutamate Dehydrogenase

- Activity in Wood and Mud Burrowing Bivalve Molluscs. Biol. Bull. 163: 355.
- 1982 Gallagher, S.M. Physiology of Wood Boring Molluscs. Special Seminar, Naval Post Graduate School, Monterey, CA
INVITED
- 1982 Prusch, R., S. M. Gallagher and R. Mann. Uptake and Utilization of L- Alanine by 10 species of Bivalve Molluscs. Biol. Bull. 163: 360.
- 1982 Gallagher, S. M. and R. Mann. Can Phytoplankton Carbon/Nitrogen Ratios be of Nutritional Significance to Bivalves? J. Shellfish. Res. 2: 96.
- 1985 Gallagher, S. M. Buoyancy regulation in larvae of *Bankia gouldi* (Bartsch) (Teredinidae: Bivalvia) National Shellfisheries Association Abs., General Meeting, June, 1985. p. 5.
- 1985 Kunkle, J., S. M. Gallagher and R. Mann. Feeding and respiration rates of *Mercenaria mercenaria* (L.) during metamorphosis. National Shellfisheries Association General Meeting. Abstracts, p. 6.
- 1985 Kamicker, B. J., S. M. Gallagher and J. B. Waterbury. The contribution of symbiotic nitrogen fixation to the nitrogen budget of shipworms. Sixth International Symposium on Nitrogen Fixation.
- 1986 Bidwell, J., A. Kuzirian and S.M. Gallagher. The effect of strontium on embryonic development in some molluscs. 5th International Symposium on Biomineralization. Arlington, Texas, May, 1986.
- 1987 Gallagher, S. M. Visual observations of particle manipulation during feeding in larvae of bivalve molluscs. Zooplankton Behavior Symposium, Savannah, Georgia, April, 1987.
- 1988 Gallagher, S. M. D. K. Stoecker and J. Waterbury. Efficient capture, ingestion and assimilation of *Synechococcus* sp. by larvae of marine bivalve molluscs (ASLO Special Section: Biology and Ecology of Marine *Synechococcus*).
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- 1988 Kuzirian, A. M., J. P. Bidwell and S. M. Gallagher. Molluscan mineralization is dependent upon strontium. National Estuarine Res. Soc. Spring meeting.
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- 1988 Gallagher, S.M., McDowell, J. J. P. Bidwell, A. M. Kuzirian. Strontium is required for embryonic shell formation in two species of bivalve molluscs. EOS 69(44):1120.

- 1988 Gallagher, S. M., V. M. Bricelj and D. K. Stoecker. Growth, Feeding Physiology and locomotory energetics of scallop larvae exposed to the brown tide organism. *In: Proceedings of the Symposia on Novel Phytoplankton blooms: causes and impacts of recurrent brown tides and other unusual blooms.* Cosper and Bricelj (Eds.). INVITED
- 1988 Gallagher, S. M. Future Research on Holoplankton and Meroplankton: Are there Common Goals? Zooplankton Colloquium, Lake Arrowhead Conference Center. April 17-21, 1988.
- 1989 Gallagher, S. M. Particle capture and locomotion in larvae of the bay scallop *Argopecten irradians*. The Seventh International Pectinid Workshop, Portland, ME - April 14-20, 1989.
- 1990 Gallagher, S.M. and J. McDowell. Strontium limits the distribution of mollusc embryos in two local estuaries. Am. Malacological Union. May. INVITED
- 1991 Gallagher, S.M. and P. Alatalo. Physiological and morphological changes in the oyster *Crassostrea virginica* during metamorphosis. Annual meeting of Bivalve Nutrition and Physiology at the Milford laboratory, June.
- 1991 Gallagher, SM; Langdon, CJ; Davis, L; Stoecker, D. High-speed video analysis of particle capture and selection by mollusc larvae. *Journal of Shellfish Research* 10(1): 282
- 1991 Jackson, D.L. and S.M. Gallagher. Spectrofluorometric estimates of triglycerides in zooplankton using the fluorescent dye Nile Red. 9th International Pectinid Workshop, France.
- 1992 Gallagher, S.M. Suspension feeding in ciliated zooplankton. (ASLO, NM). INVITED
- 1992 Drill, S, SM Gallagher, and CS Davis. 3-Dimensional analysis of foraging behavior in larvae of the mummychog. ASLO, NM
- 1992 Gallagher, S.M. and R. O'Dor. Physiology and Behavior of giant scallop larvae *Placopecten magellanicus*. Invited paper. Canadian Society of Zoologists. May. INVITED
- 1992 Guan, Y., S.M. Gallagher and R. O'Dor. The effects of pressure, food concentration and light on swimming activity and vertical distribution in larvae of the giant scallop *Placopecten magellanicus*. CSZ. May.
- 1992 Garland, J., S.M. Gallagher and R. O'Dor. Particle selection by larvae of the giant

- scallop *Placopecten magellanicus*. CSZ. May.
- 1992 Newell, R.C. and S.M. Gallager. In situ quantification of feeding and respiration in the blue mussel. NSA, Orlando, FL.
- 1992 Gallager, S. Imaging and image processing techniques for zooplankton ecology. Image Processing Workshop, Rutgers University, 22-23 October.
INVITED
- 1992 Gallager, S. and R. O'Dor. Does selective larval recruitment produce scallop stocks with unique physiological adaptations for specific habitats? Open Annual Meeting in Halifax, Nova Scotia, November.
INVITED
- 1992 Gallager, S.M. and C.S. Davis. The Video Plankton Recorder: Design and Initial Results. Zooplankton Behavior Workshop, PA
- 1993 Gallager, S. J. Manuel, D.A. Manning and R. O'Dor. Ontogenetic changes in the vertical distribution of scallop larvae *Placopecten magellanicus* in 10 m deep mesocosms as a function of light, food and temperature. 9th International Pectinid Workshop, Nanaimo, British Columbia, Canada. April 22-27, 1993.
- 1993 O'Dor, D. Jackson and S.M. Gallager. Scallops in space: microgravity research on veliger locomotion. 9th International Pectinid Workshop, Nanaimo, British Columbia, Canada. April 22-27, 1993.
- 1993 Gallager, S. Distribution and abundance of zooplankton on Georges Bank using the Video Plankton Recorder. Larval Ecology Workshop, Aug. 20-22, 1993, SUNY Stony Brook
INVITED
- 1993 Gallager, S. Vertical distribution of scallop larvae *Placopecten magellanicus* in 9 m deep mesocosms as a function of food, light, temperature and turbulence. Larval Ecology Workshop. Aug. 20-22, 1993. SUNY Stony Brook
- 1993 Paynter, KT; Caudill, C; Meritt, D; Gallager, S; Walsh, D
Protein, carbohydrate and lipid levels associated with metamorphic success in larvae of the eastern oyster, *Crassostrea virginica*. Journal of Shellfish Research 12(1): 134
- 1994 Davis, C.S. and S. Gallager. The Video Plankton Recorder: System components and deployment configurations. ASLO/AGU 011a-2.
INVITED

- 1994 Davis, C.S., S. Gallagher and P. Alatalo. Vernal stratification and fine-scale distributions of zooplankton on Georges Bank as determined by the Video Plankton Recorder. ASLO/AGU 012j-3
- 1994 Norbin, F. C.S. Davis and S.M. Gallagher. Spatial structure of plankton populations on the Southern Slope of Georges Bank; Biological and physical causes. ASLO/AGU 012j-5
- 1994 Wiebe, P. C Davis, S. Gallagher et al. Intercomparison of zooplankton sampling methods during the GLOBEC/MER 1992 cruise. ASLO/AGU 021c-2
- 1994 Buckley, L.J., A. Bucklin, M. Clark, J. Stegeman, S. Gallagher et al. Applications of molecular technology to the U.S. GLOBEC Georges Bank program. ASLO/AGU 021c-3
- 1994 Gallagher, S., C. Davis, and A. Epstein. High resolution spatial distributions of holo and meroplankton correlated with hydrography in Great South Channel, Georges Bank, determined with the Video Plankton Recorder. ASLO/AGU 012j-2
INVITED
- 1994 Jackson, DL, O'Dor, RK, Gallagher, SM. Scallops in space: Microgravity experiments with veliger locomotion. Proceedings of the 9th International Pectinid Workshop, Nanaimo, B.c., Canada, April 22-27, 1993. Volume 1., 1994, Pp. 45-52, Can. Tech. Rep. Fish. Aquat. Sci./Rapp. Tech. Can. Sci. Halieut., Vol. 1, No. 1994
- 1994 Waite, A. S. Gallagher, and R. Olson. Physical and physiological aspects of diatom aggregate formation using image analysis. ASLO/AGU
- 1995 Gallagher, SM. Micro-scale to meso-scale structure in plankton communities unyield using the Video Plankton Recorder. The Oceanographic Society (TOS) Annual Meeting, April, 1995. INVITED
- 1995 von Herbing, I and SM Gallagher. Effects of prey behavior and light intensity on foraging success in cod larvae over ontogenetic development. Second International Workshop on Larval Biology, Miami, FL, August, 1995
- 1995 Gallagher, SM. New approaches to studying trophic interactions in the plankton. WHOI Associates Day of Science, September.
INVITED
- 1995 Gallagher, SM and C Davis. VPR studies during the 1995 GLOBEC field year. 2nd Annual GLOBEC Scientific Investigator Workshop, Woods Hole.
- 1996 Gallagher, SM. Yolk-sac cod larvae consume microzooplankton exclusively from natural assemblages on Georges Bank. ASLO/AGU San Diego, Feb.

- 1996 Gallagher, SM, and C Davis. Micro-scale vertical distributions of plankton associated with turbulence on Georges Bank during the 1995 GLOBEC field year. ASLO/AGU San Diego, Feb.
INVITED
- 1996 Gallagher, SM, C Davis, S Kery and A Bradley. The autonomous vertically profiling Video Plankton Recorder. ASLO/AGU San Diego, Feb.
INVITED
- 1996 Ashjian, C, SM Gallagher, C Davis, and P Alatalo. Distribution of plankton and particles across Georges Bank during the GLOBEC process cruises: Results of cross-bank surveys using the VPR. ASLO/AGU San Diego, Feb.
- 1996 Moore, M. B Woodin, M Morss, S Gallagher, and JJ Stegeman. Molecular markers of cell proliferation in copepods and larval fish. ASLO/AGU San Diego, Feb.
- 1996 Green, CH, PH Wiebe, M Benfield, C Davis, S Gallagher, J Popp. Acoustic and video remote sensing of zooplankton patchiness. ASLO/AGU San Diego, Feb. 1996
- 1996 Stanton, TK, DE McGee, SM Gallagher, CS Davis, PH Wiebe. Sound scattering by the wake of an underwater vehicle. ASLO/AGU San Diego, Feb 1996
- 1996 Sieracki, ME , D Gifford, SM Gallagher, C Davis. Observations on a dense patch of the diatom *Chaetoceros socialis* on the southern flank of Georges Bank: distribution, colony structure and grazing losses. ASLO/AGU San Diego, Feb.
- 1996 Gallagher, SM, CS Davis, P Alatalo, A Girard. Horizontal and vertical distribution of zebra mussel larvae and other plankton in Saginaw Bay, Michigan in relation to hydrography using the Video Plankton Recorder. 6th International Zebra Mussel and other Aquatic Nuisance Species Conference March, An Arbor MI
INVITED
- 1996 Gallagher, SM. Ciliary suspension-feeding and particle selection in invertebrate larvae. Annual Meeting of the National Shellfisheries Association, Baltimore MD, April 11, 1996. INVITED
- 1996 Gallagher, SM and CS Davis. Multi-scale analysis of plankton distributions and hydrography using the Video Plankton Recorder on three deployment platforms. Office of Naval Research 50th Anniversary, Washington DC, April 22.
INVITED
- 1996 Gallagher, SM. Plankton ecology from millimeters to kilometers: A multi-scale view of the distribution and behavior of plankton in relation to their physical environment. Dedication of the URI Coastal Institute, URI, September 13.

INVITED

- 1997 Gallagher, SM. Present and future directions in plankton ecology. SEAMASS Seminar Series INVITED
- 1998 Van Keuren, JR, SM Gallagher, RG Lough, LS Incze, E Caldarone, P Alatalo, EA Broughton, JP Manning. Interaction of hydrographic and biological conditions with growth and feeding of larval cod and haddock on Georges Bank's southern flank. OS21E-03 AGU, 1998.
- 1998 JA Quinlan, FE Werner, SM Gallagher, RG Lough, J Van Keuren, LJ Buckley. Modeling the growth of first-feeding cod larvae on Georges Bank. OS21E-04 AGU, 1998.
- 1998 MC Benfield, PH Wiebe, DG Mountain, CS Davis, SM Gallagher, CH Green, TK Stanton. Visualizing fine-scale physical and biological structure: Results from optical, acoustical and environmental sensing. OS21E-09, AGU, 1998
- 1998 CS Davis, SM Gallagher, X Tang, CJ Ashjian. Real-time visualization of taxa-specific plankton distributions. OS21E-10, AGU, 1998
- 1998 CL Johnson, SM Gallagher, CS Davis. Observations in 3-D of in situ copepods motion. OS21E-11, AGU 1998
- 1998 FT Thwaites, SM Gallagher, CS Davis AM Bradley, A Girard. The Autonomous vertically profiling observatory (AVPPO). OS31A-16, AGU, 1998
INVITED
- 1998 MR Dennett, DA Caron, A Michaels, SM Gallagher, CS Davis. Colonial radiolarian abundance and biomass estimates in the upper 150 m of the Eastern Pacific and Western Atlantic using a mini-Video Plankton Recorder. OS41N-01, AGU, 1998
- 1998 CJ Ashjian, CS Davis, SM Gallagher, P Alatalo. Distribution of plankton and particles across Georges Bank during 1994-1995 GLOBEC cruises: Results of cross-bank surveys using the Video Plankton Recorder (VPR). OS41D-07.
- 1998 SM Gallagher, H Yamazaki, A Yamazaki, P Alatalo. Scale translation in the plankton: Coupling behavior and vertical distribution of pteropods in coastal waters. OS41N-09
- 1998 RG Lough, LS Incze, SM Gallagher, EA Broughton, JP Manning. Sampling strategy for larval fish and their zooplankton prey in the tidal mixing front on Southern Georges Bank, May 1997. OS42H-01
- 1998 SM Gallagher, CS Davis, H Yamazaki, P Alatalo. Observations of plankton pancakes on Georges Bank: The roles of behavior, stratification and microstructure. OS51H-09
INVITED

- 1998 F Bar, C Lee, KH Brink, CS Davis, SM Gallagher, M Berman. Observations of a major warm water intrusion onto Georges Bank: Summer 1997 OS32C-08
- 1998 SM Gallagher. Optical Imaging and Identification of Plankton and other Light Scatterers in the Ocean using the Video Plankton Recorder Ocean Optics XIV, Hawaii, November 10-15, 1998. INVITED
- 2000 SM Gallagher. Optical imaging, remote plankton identification, and scales of community structure in the ocean. UMass Boston Department of Oceanography. INVITED
- 2001 Morrison, R. H Sosik, D Codiga, SM Gallagher. Time series measurements and algorithm development at the FRONT site on the New England Shelf. NASA SIMBIOS science team meeting
- 2002 Seasonal Changes in the Association of Larval Krill with its Potential Microplankton Food Resource Along the Western Antarctic Peninsula. Gallagher, Daly, Ashjian, Wiebe, Fisher, Alatalo, Davis, Rosenwacks, AGU, Honnolulu, HI
- 2002 Tidally generated undular bores and near-surface plankton distribution in Massachusetts Bay: a combined observational and theoretical approach Pineda, Gallagher, Scotti, AGU Honnolulu, HI
- 2002 Distribution of Larval Krill and Zooplankton on the Continental Shelf of Marguerite Bay, Antarctic Peninsula. Ashjian, Davis, Gallagher, Wiebe, AGU Honnolulu, HI
- 2002 Ctenophore Predation on Larval Euphausia superba During Winter Along the Western Antarctic Peninsula , AGU Honnolulu, HI Skolardi, Daly, Gallagher
- 2002 The Role of the Autonomous Vertically Profiling Plankton Observatory (AVPPO) in the FRONT Project Gallagher, Girard, Morrison, Davis, Sosik, AGU Honnolulu, HI INVITED
- 2002 The Use of a High Powered Strobe Light to Increase the Catch of Antarctic Krill by a 1-m² MOCNESS Wiebe, Ashjian, Gallagher, Davis, Copley, AGU Honnolulu, HI
- 2002 New Developments in Imaging and Deployment of the Video Plankton Recorder Davis, Gallagher, Thwaites, AGU Honnolulu, HI
- 2002 Broad-scale Distribution of Zooplankton Acoustic Backscattering in Continental Shelf Waters of the Western Antarctic Peninsula During Austral Fall and Winter 2001 Lawson, Wiebe, Ashjian, Gallagher, Davis, Warren, AGU Honnolulu, HI
- 2003 Innovative instrumentation in biological oceanography. PICES, Gijion, Spain.

Gallager and Davis. INVITED

- 2003 The Autonomous Vertically Profiling Plankton Observatory at the Martha's Vineyard Observatory. Gallager and Morrison. The Next Generation of in situ Biological and Chemical Sensors in the Ocean.
- 2004 Integrated sensor systems: From MEMS to arrays. ORION workshop. Puerto Rico January 2004. INVITED
- 2004 Providing real-time oceanographic data to educators with the Autonomous vertically profiling Plankton Observatory. K. Madin, SM Gallager,R Morrison. ASLO/AGU, Honnolulu, HI
- 2004 The Next Generation Of In Situ Biological And Chemical Sensors In The Ocean: A Workshop Report With Recommendations. Gallager, SM, ASLO/AGU, Honnolulu, HI. INVITED
- 2004 Imaging Microplankton For Identification And Description Of Motility Patterns To Assess Prey Vulnerability And Community Structure. ASLO June 13-18, Savannah, GA INVITED
- 2004 NOAA Advanced Imaging Technology Workshop. Seattle WA, August 2004. Invited Expert. Sea scallop habitat classification using a new benthic imaging system and advanced image processing algorithms.
- 2004 SCAR: Scientific Committee on Antarctic Research, Bremen, Germany. July 2004. Abundance, Distribution, Swimming Behavior, and Feeding of Under Ice Larval Krill Along the Western Antarctic Peninsula. Gallager S (1), Daly K (2), Thompson G (3), Alatalo P (1), Girard A (1), and Rosenwacks G (1)
- 2005 Antarctic research on an extension cord into the Southern Ocean. 15 September. Seminar to WHOI Journalist Fellows
- 2006 Species-Specific Growth and Condition in Bivalve Larvae During the Summer of 2005 in Waquoit Bay, MA. Christine Mingione, Rick York, Scott M. Gallager, Ocean Science Meeting, Honolulu
- 2006 High Resolution Bathymetry and Seafloor Structure in a 4 km Radius of Palmer Station, Antarctica. Gallager, S.M., V. Asper,. K. von der Heydt, and G. Packard. Ocean Science Meeting, Honolulu
- 2006 A Polar Remote Interactive Marine Observatory (PRIMO) Near Palmer Station on the Western Antarctic Peninsula: Sensors and Cyberinfrastructure. Scott Gallager, Keith von der Heydt, Robert Beardsley, Vernon Asper. Ocean Science Meeting, Honolulu
- 2006 A Polar Remote Interactive Marine Observatory (PRIMO) Near Palmer Station on the

- Western Antarctic Peninsula: Overview and outreach. Vernon Asper, Scott Gallagher, Keith von der Heydt, Robert Beardsley. . Ocean Science Meeting, Honolulu
- 2006 LAPIS: An imaging survey instrument for gelatinous zooplankton. L Madin, E Horgan, SM Gallagher, J Eaton, and A Girard. IEEE Oceans06, 10pp.
- 2006 Development of a Towed, Ocean Bottom Survey Camera System for Deployment by the Fishing Industry. Jonathan Howland, Scott Gallagher, Hanumant Singh, Andrew Girard, Lane Abrams, Chris Griner. IEEE Oceans06, 10pp.
- 2007 Development of an image test set for classification of seafloor habitat, Gallagher, Video workshop on scallop stock, BIO Halifax, NS. INVITED
- 2007 High Resolution Underwater Imaging and Image Processing for Identifying Scallops Stocks Scott M. Gallagher, Richard Taylor, Norman Vine, Amber York, 14th annual Pectinid workshop 16th International Pectinid Workshop
- 2007 PRIMO and the future of Ocean Tracking at Palmer Station, Antarctica. Gallagher OSTAPA, acoustic curtains for tagging and tracking large pelagics, Halifax, NS, chaired technical breakout groups
- 2007 NEBO- Northeast benthic-pelagic observatory, OBIS Biodiversity Informatics Conference, Halifax, NS
- 2007 Workshop to develop background for an ONR DRI on acoustics and optics, December INVITED
- 2008 Development of observatory systems. Invited expert on ocean observing systems, Shanghai Workshop for Ocean Observing Several large cabled observatory systems are being planned for the coastal seas east of Shanghai. Design and initial results for NEBO (Northeast benthic-pelagic observatory), PLUTO (Panama observatory) and PRIMO (Antarctic observatory). INVITED
- 2008 NOAA Invasive Species workshop, September 2008. Distribution of *Didemnum* sp. on Georges Bank. INVITED
- 2008 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.
- 2008 Gallagher, SM. NH Vine, AD York, S Lerner, D Hart, J Howland, L Prasad, L Mayer, and R Taylor. 2008 Evolution of a Benthic Imaging System From a Towed Camera to an Automated Habitat Characterization System. IEEE Oceans 08.
- 2008 Gallagher, SM. A Benthic-Pelagic Observatory to Support Fisheries and an Ecosystem Approach to Management: NEBO. Ocean Biodiversity Informatics Conference, Halifax,

CA

- 2008 Gallagher, SM. The Northeast Benthic-pelagic Observatory (NEBO) to Support Sea Scallop Fisheries and Ecosystem Approaches to Management. National Shell Fisheries Association meeting, June 2008
- 2008 Gallagher, SM. The Northeast Benthic-pelagic Observatory (NEBO) to Support Sea Scallop Fisheries and Ecosystem Approaches to Management. MABPOM, WHOI 2008
- 2008 Gallagher, SM. AD York, Y Longonje, S White. Bivalve Larval Shell Formation: the Requirement for Sr^{+2} may be Explained by Amorphous Calcium Carbonate as a Precursor Phase for Aragonite. National Shellfisheries Association meeting, June 2008
- 2008 York, AD, R Taylor, N Vine, S Lerner, S Gallagher. Using a towed optical habitat mapping system to monitor the invasive *Didemnum vexillum* along the Northeast Continental Shelf. National Shellfisheries Association meeting, June 2008.
- 2008 York, AD, R Taylor, N Vine, S Lerner, S Gallagher. Using a towed optical habitat mapping system to monitor the invasive *Didemnum vexillum* along the Northeast Continental Shelf. NOAA Invasive Species Workshop, September 2008.
- 2008 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 OCEANS 2008
- 2008 York, AD, R Taylor, N Vine, S Lerner, D Hart, L Prashad, S Gallagher. 2007. Development of an Optical Image Database and Processing Tools for Automated Classification of Benthic Habitat and Enumeration of Scallop Stocks. Proceedings of the Ocean Biodiversity Informatics Conference 2007
<http://www.marinebiodiversity.ca/OBI07>
- 2008 York, AD, R Taylor, N Vine, S Lerner, D Hart, L Prashad, S Gallagher. Development of an Optical Image Database and Processing Tools for Automated Classification of Benthic Habitat and Enumeration of Scallop Stocks. MABPOM meeting WHOI, September 2008
- 2008 Mingione, C. and SM Gallagher. Identification of bivalve larvae using polarization optics. Larval Ecology meeting, Spain
- 2009 York, AD, S Gallagher, R Taylor, N Vine, S Lerner, 2009. Dynamics of the invasive tunicate species *Didemnum vexillum* along the U.S. Northeast Continental Shelf. American Society of Limnology and Oceanography. Nice, France
- 2009 Monitoring the invasive tunicate *Didemnum vexillum* and other applications of the HabCam optical habitat mapping system. GeoHab, April 2009.

- 2009 HabCam: Habitat Mapping Camera System. MBARI Image Informatics Workshop, April 2009.
- 2009 Coral reef fish community structure at the PLUTO observatory 2007-2009. WHOI LJJ workshop, May 2009
- 2010 Automated classification of the invasive tunicate *Didemnum vexillum* from HacCam imagery. International Invasive Sea Squirt Conference III. . April 26th-28th, 2010. Woods Hole, MA
- 2010 Automated image processing of HabCam imagery, NOAA Automated Image Processing Workshop, Seattle, WA. September 2010.
- 2010 York, AD, S Gallagher, M Carman, R Taylor, N Vine. (2010, Apr 27th). *Didemnum vexillum* offshore: distribution and ecological trends on Georges and Stellwagen Banks. International Invasive Sea Squirt Conference III, Woods Hole, MA.
- 2010 York, AD, S Gallagher, R Taylor, N Vine, (2010, May 1st). A Towed Optical Habitat Mapping System Monitors the Invasive Tunicate Species *Didemnum vexillum* Along the Northeast Continental Shelf, Marine Educators 34th Conference and Annual Meeting, Woods Hole, MA.
- 2010 York, AD, S Gallagher, R Taylor, N Vine, L Prasad, C Stewart, D Wu, D Guo. (2010, Sept 8th). A three year time series of abundance and distribution of the invasive tunicate *Didemnum vexillum* classified manually and automatically from HabCam images on Georges Bank. NOAA Automated Image Processing Workshop, Seattle, WA.
- 2011 Gallagher et al. Optical characterization of sea scallop, yellowtail flounder and habitat on Georges Bank using the HabCam imaging system.. American Fisheries Association
- 2012 Spatial characterization of benthic-pelagic coupling in Stellwagen Bank (Gulf of Maine) Ribera, M, S Gopal, L. Kaufman, A York, S Gallagher. American Fisheries Association
- 2013 New England Fisheries Management Council, Plan Development Team
Invited Expert. Made presentation to assess methods and approaches to characterizing biomass and habitat by optical and acoustics methods. Presented habitat suitability model results for commercially valuable species. The PDT agreed that this is a worthwhile direction to go for routine assessment of rotational closure areas.
March 2013
- 2013 New England Fisheries Management Council, Closed Area Assessment Team
Invited Expert
Made presentation to describe habitat suitability modeling and provided results that would allow management of closed areas on Georges Bank more effectively.
April 2013

2013 NOAA Analysis of approaches to habitat classification and visualization. Invited Expert
March, 2013. Habitat Data Visualization Workshop, Portland ME

2013. Marine Geological and Biological Habitat Mapping (GEOHAB).

A novel approach to assembling habitat suitability models

Gallager, York and DeStefano- presenter

2013 Using Raman spectroscopy to identify bivalve larvae

Elizabeth North¹, Scott Gallager², Victor Kennedy¹, Christine Thompson¹, Sheri White²

¹Horn Point Laboratory, University of Maryland Center for Environmental Science

²Woods Hole Oceanographic Institution

Christine Thompson- presenter

2013 Futrelle, J.; Maffei, A. R.; Sosik, H. M.; Gallager, S. M.; York, A. (2013), What Not To
Do: Anti-patterns for Developing Scientific Workflow Software Components. AGU 2013
Fall Meeting, San Francisco, Calif., 9-13 Dec 2013.

2014 HabCam: The tool for acoustic and stereo optic benthic habitat assessments.

Gallager, SM and AD York.. February 2014. NOAA benthic imaging workshop, Sandy
Hook, NJ

This list is not up to date