

VITAE

William G. Ambrose, Jr.

PRESENT POSITION: Professor of Biology, Bates College

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EDUCATION:

1982 University of North Carolina at Chapel Hill, Ph.D. in Marine Sciences
1977 Princeton University, A.B. in Biology

PROFESSIONAL EXPERIENCE:

2005-present Professor, Department of Biology, Bates College.

2004-present Adjunct Senior Scientist, Akvaplan-niva, Tromsø, Norway.

2004-2006 Chairman, Department of Biology, Bates College.

2000-2005 Associate Professor, Department of Biology, Bates College.

2000-2001 Fulbright Professor, Department of Marine Biology and Chemistry, University of Oslo, Norway.

1994-1999 Assistant Professor, Department of Biology, Bates College.

1990-1994 Assistant Professor, Department of Biology and Assistant Scientist, Institute for Coastal and Marine Resources, East Carolina University.

1988-1990 Visiting Assistant Professor, Department of Biology and Assistant Scientist Institute for Coastal and Marine Resources, East Carolina University.

1986-1988 Assistant Professor, Maritime Studies Program, Williams College.

1986 (Spring Semester) Visiting Assistant Professor North Carolina at Chapel Hill and Research Associate, UNC Institute of Marine Sciences.

1984-1986 Royal Norwegian Council for Scientific and Industrial Research Postdoctoral Fellow, University of Oslo, Norway.

- 1982-1983 National Research Council, Postdoctoral Fellow Environmental Protection Agency, Newport, Oregon.
- 1977-1982 Research Assistant/Teaching Assistant, University of North Carolina at Chapel Hill and Institute of Marine Sciences.

TEACHING EXPERIENCE:

- 1994-present Teacher: Marine Ecology, Oceanography, Ecology, Invertebrate Zoology, Experimental Marine Ecology, Seminar and Research in Marine Ecology, First Year Seminar, Junior/Senior Seminar, Bates College.
- 1988-1994 Teacher: Environmental Biology, Population and Community Ecology, Marine Community Ecology, Marine Biology, East Carolina University.
- 1988 (Summer Session) Lecturer: Marine Ecology, Marine Biological Laboratory, Woods Hole.
- 1988 (Winter Study Program) Teacher: The Arctic World, Williams College.
- 1987 Guest Lecturer: Arctic Ecology Geology and History, National Trust for Historic Preservation Northern Voyage of Rediscovery.
- 1986-1988 Teacher: Oceanography, Marine Ecology, and associated laboratories, Williams College.
- 1986 Co-teacher (with Peterson, C.H.): Marine Ecology, University of North Carolina at Chapel Hill.
- 1984 Teacher: Experimental Design and Statistical Analysis in Studies Involving the Scanning Electron Microscope and X-ray Microanalyser, University of Oslo, Norway.
- 1981 Teaching Assistant: Coastal Community Ecology, University of North Carolina at Chapel Hill and Institute of Marine Sciences.

HONORS AND AWARDS:

- 2005 Winner, Kroepsch Award for Excellence in Teaching at Bates College.
- 1998 Nominee, Kroepsch Award for Excellence in Teaching at Bates College.
- 1997 Nominee, Kroepsch Award for Excellence in Teaching at Bates College.
- 1977 Magna cum laude; Princeton University.

FELLOWSHIPS:

2009-2010	Phillips Fellowship, Bates College.
2000-2001	Fulbright Fellowship, University of Oslo.
1984	Royal Norwegian Council for Scientific and Industrial Research Fellowship.
1983	National Research Council Postdoctoral Fellowship
1980	R.J. Reynolds Research Fellowship.

RESEARCH GRANTS:

2012-2014	Maine Sea Grant Program: “Spatial and Temporal Variation in the Growth of the Soft-Shell Clam (<i>Mya arenaria</i>) Along the Coast of Maine” (P.I. \$147,473).
2011-2012	Norwegian Department of Environmental Protection: “Pilot Study of Contaminants in Freshwater Mussels in Northern Norway” (Co. P.I. \$50,000).
2011-2012	Norwegian Department of Environmental Protection: “Ecosystem Structure and Use of Marine Resources from Bivalve and Fish Bone Proxies” (Co. P.I. \$68,000).
2011-2012	Norwegian Department of Environmental Protection: “Developing an Exhibition at Polaria on Bivalve Behavior and Growth to Inform the Public about the Effects of Climate Change and Pollution in the Arctic” (Co. P.I. \$37,000).
2011-2012	The Research Council of Norway: “Remote Online Biosensors: Detection of Climate Change and Industrial Impact on Bivalve Behavior” (Co. P.I. \$500,000).
2011-2012	Statoil, Shell Oil Company, and ENI “Effects of Dispersed Oil on Shallow Water Barents Sea Species” (Co. P.I. \$416,000).
2010-2013	National Science Foundation: “Shetland Islands Climate and Settlement Project: Multidisciplinary Analysis of Environmental Catastrophes on Northern Coastlines” ARC-1026911(Co. P.I. \$257,324).
2009-2013	National Science Foundation: “Changes in baseline conditions in Gulf of Maine coastal ecosystems over the Last 4000 years” OCE-0929900 (Co. P.I. \$392,803).
2008-2009	Maine Department of Marine Resources Growth and long-term abundance patterns of the bloodworm (<i>Glycera dibranchiata</i>). (P.I. \$7000).
2008-2009	Maine Sea Grant Program: Growth and long-term abundance patterns of the bloodworm (<i>Glycera dibranchiata</i>) (P.I. \$49,000).

- 2007-2010 The Research Council of Norway: “Diet and Reproductive Output in Arctic Mollusks: The importance of ice algae and phytoplankton” (Co. P.I, \$135,000).
- 2006-2007 Maine Department of Marine Resources: “Harvest Size, growth, and harvest efficiency of *Glycera dibranchiata*/from intertidal mud flats in mid-coast Maine” (P.I. \$2,500).
- 2006-2008 Maine Department of Marine Resources: “Frequency, intensity, and ecological consequences of blood worm (*Glycera dibranchiata*) harvesting on intertidal mudflats in Maine” (P.I. \$12,722).
- 2006-2008 Maine Sea Grant Program: “Frequency, intensity, and ecological consequences of blood worm (*Glycera dibranchiata*) harvesting on intertidal mudflats in Maine” (P.I. \$134,204).
- 2004 Maine Sea Grant Program: “Preliminary investigation of sediment disturbance from blood worm digging” (P.I. \$3000).
- 2003 The Research Council of Norway: “Environmental effects of offshore oil activities in the Norwegian Arctic: Experimental tests of petroleum-associated components on benthos at community, individual, and cellular levels” (Co. P.I. \$452,121).
- 2002 The Research Council of Norway: “Carbon flux and ecosystem feedback in the northern Barents Sea in an era of climate change (CABANERA)” (Foreign investigator, \$900,000).
- 2002 The Research Council of Norway "Life at the edge: Benthic communities at the Barents Sea ice edge in a changing climate (BASICC)" (Foreign investigator, \$150,000).
- 2002 National Science Foundation: “Digestibility of ice algae and phytoplankton: The potential impacts of changing food supply to the arctic benthos” OPP-0222423 (Co. P.I. \$124,000).
- 2002 National Science Foundation: Cultural Anthropology, Arctic Social Sciences, Arctic Natural Sciences Programs: “Investigating ecological change in the near-shore Kotzebue Sound Ecosystem: Simultaneous application of traditional and scientific knowledge” OPP-0138596 (Co. P.I. \$795,000).
- 1998 National Oceanic and Atmospheric Administration National Undersea Research Program: “Benthic response to early-season deposition of ice algae in the Chukchi Sea” (P.I. \$62,802, plus \$20,000 in system support).
- 1997 National Oceanic and Atmospheric Administration National Undersea Research Program: “Spatial patterns and benthic remineralization of ice algal communities in the Chukchi Sea” (P.I. \$5,740).

- 1996 NATO, Scientific Affairs Division: "NATO Advanced Research Workshop: Biogeochemical cycling in marine sediments" (Co. P.I. \$28,220).
- 1996 National Science Foundation, Division of Polar Programs: "Remineralization rates and benthic communities in the Arctic Ocean: spring conditions" (supplement to OPP-9400092, \$4,900).
- 1995 National Science Foundation, Division of Polar Programs: "Arctic Ocean Section Sediment Workshop" (Supplement to OPP-9400092, \$8,350).
- 1995 The American Scandinavian Foundation: "Predation on juvenile sea urchins by hapteric fauna" (\$2,000).
- 1995 Duke University- University of North Carolina Oceanographic Consortium: "Carbon cycling near the Charleston bump: relative importance of benthic macrofauna and sedimentary microbes" (P.I. \$40,115).
- 1995 Norwegian Marshall Fund: "Predation on juvenile sea urchins by hapteric fauna" (\$5,200).
- 1994-1997 National Science Foundation, Division of Polar Programs: "Role of biomass, bioturbation, and remineralization in determining the fate of carbon in the Arctic Ocean" OPP-9400092 (P.I. \$156,597).
- 1993-1994 National Science Foundation, Division of Polar Programs: "Isotopic analysis of food chain structure in the Northeast Water Polynya" (Supplement to DPP 9113756, \$8,428).
- 1992-1995 National Oceanic and Atmospheric Administration Sea Grant Program "Structure and function of continental shelf hard bottom fisheries habitat" R/CZS-27 (Co. P.I. \$161,616).
- 1992-1994 National Oceanic and Atmospheric Administration National Undersea Research Program: "Trophic linkages between soft-bottom and hard-bottom communities in Onslow Bay, North Carolina (Co. P.I. \$39,794).
- 1992-1993 Cooperative Institute for Fisheries Oceanography: "Role of nutrient rich submarine ground water discharge upon hard bottom habitats and reef fish recruitment: Onslow Bay, North Carolina (Co. P.I. \$20,925).
- 1991-1996 National Science Foundation, Division of Polar Programs: "Collaborative research on the Northeast Water Polynya: benthic community structure and reproductive patterns of benthic organisms" DPP 9113756 (P.I. \$254,311).
- 1991-1994 National Oceanic and Atmospheric Administration National Undersea Research Program: "Evolution of hard bottom morphotypes: Onslow Bay, North Carolina Continental Shelf" (Co. P.I. \$335,686).

- 1991-1992 Environmental Protection Agency, Albermarle Pamlico Estuarine Study: "Effects of trawling on benthic communities and non-target species" (P.I. \$4,070).
- 1991-1992 National Oceanic and Atmospheric Administration National Undersea Research Program: "Structure of soft-bottom communities associated with hard-substrate habitats in the south Atlantic bight" (P.I. \$15,000 plus ship time).
- 1990-1993 National Oceanic and Atmospheric Administration: "Accelerating and evaluating the development of restored and created sea grass ecosystems" (Co. P.I. \$83,795)
- 1990 National Oceanic and Atmospheric Administration National Undersea Research Program: "Structure of soft-bottom communities associated with hard-substrate habitats in the south Atlantic bight" (P.I. \$3,200 plus ship time).
- 1989-1990 University of North Carolina Coordinating Committee for Marine Programs: "Effect of attachment location on growth and survival of juvenile bay scallops, *Argopecten irradians*" (P.I. \$4,000).
- 1990 Eisenhower Mathematics and Science Program for Higher Education: "Environmental quality in the coastal plain: A focus on ecology where rivers meet the sea" (Co. P.I. \$19,948).
- 1989-1990 Pamlico River Task Force: "Environmental quality survey of Kennedy Creek and adjacent portions of the lower Tar and upper Pamlico Rivers: Effects of pollutants on benthic organisms" (P.I. \$9,482).
- 1989-1994 Texasgulf Inc.: "Fish and invertebrate utilization of man-made wetlands, and nursery area assessment of Long, Short, and Bond Creeks, Beaufort County, N.C." (Co. P.I. \$747,942).
- 1988-1990 University of North Carolina Sea Grant: "Feasibility test to replenish bay scallop populations and initiate bay scallop aquaculture" (P.I. \$12,097).
- 1988-1989 University of North Carolina Marine Science Coordinating Committee for Marine Programs: "Emergence behavior of demersal zooplankton" (P.I. \$3,600).
- 1987-1988 American Museum of Natural History Lerner-Gray Fund for Marine Research: "Field investigation of emergence behavior of demersal zooplankton" (P.I. \$620).
- 1984-1985 Norwegian Polar Institute Research Grant: "The distribution and abundance of infauna at Ny-Ålesund, Longyearbyen, and Agardh, Svalbard (Spitzbergen)" (Co. P.I. \$25,000).

- 1980-1982 National Science Foundation Doctoral Dissertation Research Grant: "The importance of predaceous polychaetes in organizing marine soft-bottom communities" OCE 79-19916 (\$8,800).
- 1979 University of North Carolina, graduate student research grant (\$2,000).

PROFESSIONAL RESPONSIBILITIES:

American Scandinavian Foundation Fellowship Committee 1997-2002, 2009-present.

Casco Bay Scientific and Technical Advisory Committee 2012-present.

Editorial Board, Journal Shellfish Research 2010-present.

Maine Ecological Characterization Working Group, member 2003-2006.

Arctic Research Consortium of the United States, Student Research Committee 2001-2003.

Duke-North Carolina Oceanographic Consortium Program Advisory Committee 1990-1994.

Stonington Connecticut Shellfisheries Commission member 1986-1988.

Conferences Organized: Arctic Ocean Section Sediment Work Shop (Halifax, Canada 1996); 25th Annual Benthic Ecology Meeting (Portland, Maine, 1997), NATO Advanced Research Work Shop (Hell, Poland, 1997), 39th Arctic Workshop (Lewiston, Maine, 2009).

Proposal Reviewer: National Science Foundation Biological Oceanography and Division of Polar Programs, National Sea Grant Program, Maine-New Hampshire Sea Grant Program, National Oceanographic and Atmospheric Administration, Connecticut Department of Environment, and Smithsonian Institute.

Review Panels: National Undersea Research Program, Middle Atlantic Bight Center 1994, 1995; West Coast and Alaska Center 1999, Northeast Fisheries Consortium 2004, Maine- New Hampshire Sea Grant 2004, National Estuarine Graduate Research Fellowship Program 2004, American Scandinavian Foundation Fellowship Committee 1996-2003; 2009-present.

Manuscript Reviewer: *American Zoologist, Annals Zoologica Fennici, Ecology, Estuarine, Coastal and Shelf Science, Continental Shelf Research, Deep Sea Research, Ecology, Journal of Experimental Marine Biology and Ecology, Journal of the Marine Biological Association of the United Kingdom, Journal of Marine Systems, Journal of Shellfish Research, Journal of Applied Ecology, Limnology and Oceanography, Marine Biology, Marine Biology Research, Marine Ecology Progress Series, Oecologia, Oikos, Ophelia, Polar Biology.*

PAPERS PRESENTED:

- 2012 Arctic Frontiers (Tromsø, Norway).
- 2012 International Polar Year (Montreal, Canada).
- 2012 American Geophysical Union (Salt Lake City, UT).
- 2012 15th Norwegian Russian Symposium (Longyearbyen, Svalbard).
- 2012 Benthic Ecology Meeting Session Chairman (Norfolk, VA).
- 2012 New England Estuarine Research Society (Plymouth, MA).
- 2012 21st Biennial Conference of the Estuarine Research Federation (Daytona Beach, FL).
- 2011 Benthic Ecology Meeting, (Mobile, AL).
- 2011 American Geophysical Union (San Francisco, CA).
- 2011 Ecosystem Studies of Sub-Arctic Seas (Seattle, WA).
- 2010 2nd International Sclerochronology Conference (Mainz, Germany).
- 2010 Arctic Frontiers (Tromsø Norway).
- 2010 International Polar Year Oslo (Oslo, Norway).
- 2009 Benthic Ecology Meetings (Corpus Christi, TX).
- 2009 European Geophysical Union (Vienna, Austria).
- 2009 Arctic Workshop (Lewiston, ME).
- 2009 Western Alaskan Interdisciplinary Conference (Nome, AK).
- 2009 Arctic Frontiers (Tromsø, Norway.)
- 2008 American Society of Oceanography and Limnology, (Orlando, FL)
- 2008 International Society of Petroleum Engineers Conference on Health, Safety and Environment in Oil and Gas Exploration and Production (Nice, France).
- 2008 International Council for Exploration of the Sea (Halifax, Canada).
- 2008 American Society Limnology and Oceanography (Nice, France).
- 2007 1st Annual Sclerochronology Conference (St. Petersburg, FL).
- 2007 Arctic Forum (Tromsø Norway).
- 2007 England Estuarine Research Society Spring Meeting (Boothbay Harbor, ME).
- 2007 American Chemical Society National Meeting (Boston, MA).
- 2006 American Geophysical Union, Annual Meeting (Honolulu HI).
- 2006 Benthic Ecology Meeting (Quebec City, Canada).
- 2005 Benthic Ecology Meetings (Williamsburg, VA).
- 2005 American Fisheries Society 135th Annual Meeting (Anchorage, AK).
- 2005 Estuarine Research Federation, Biennial Meeting (Norfolk).
- 2004 American Association of Oceanography and Limnology (Honolulu, HI).
- 2004 Benthic Ecology Meetings (Mobile AL).
- 2003 Benthic Ecology Meetings (Groton, CT).
- 2002 Benthic Ecology Meetings (Orlando, FL).
- 2002 Northeast Estuarine Society Meeting (Bar Harbor, ME).
- 2000 Benthic Ecology Meetings (Wilmington, NC).
- 1999 Benthic Ecology Meetings (Baton Rouge, LA).
- 1999 American Society of Limnologists and Oceanographers (Santa Fe, NM).
- 1998 Benthic Ecology Meetings (Melbourne, FL).
- 1997 Benthic Ecology Meetings (Portland, ME).
- 1996 American Geophysical Union (San Diego, CA).
- 1996 Benthic Ecology Meetings (Columbia, SC).

- 1995 Northeast Water Polynya Symposium, Session Chairman (Helsingør, Denmark).
- 1995 Society of Sedimentary Geology (St. Petersburg, FL).
- 1994 Benthic Ecology Meetings (Mystic, CT).
- 1994 European Marine Biological Symposium (Vienna, Austria).
- 1993 Benthic Ecology Meetings (Mobile, AL).
- 1993 The Oceanographic Society (Seattle, WA).
- 1993 American Society of Limnology and Oceanography (Alberta, Canada).
- 1992 Benthic Ecology Meetings, Session Chairman (Newport, RI).
- 1990 Benthic Ecology Meetings, Session Chairman (Mobil, AL).
- 1990 National Shellfisheries Association Annual Meeting (Williamsburg, VA).
- 1990 European Marine Biological Symposium (Ferrara, Italy).
- 1989 7th International Pectinid Workshop (Portland, ME).
- 1989 Benthic Ecology Meetings (Solomons, MD).
- 1989 European Marine Biological Symposium (Oban, Scotland).
- 1987 Benthic Ecology Meetings, Session Chairman (Raleigh, NC).
- 1985 European Marine Biological Symposium (Hirtshals, Denmark).
- 1983 European Marine Biological Symposium (Plymouth, England).
- 1980 New England Estuarine Research Federation Meetings (Southport, ME).
- 1977 Benthic Ecology Meetings (New Haven, CT).

INVITED SEMINARS:

- 2010 Alfred Wegner Institute for Marine Research, Bremerhaven, Germany.
- 2007 Arctic Frontiers, Tromsø, Norway.
- 2006 Department of Biology Bowdoin College.
- 2003 Department of Marine Science, University of New Hampshire.
- 2001 Abo Akademi, Univestiy Abo, Finland.
- 2001 Norwegian Polar Institute, Akvaplan-Niva, Tromsø Norway.
- 2001 Institute for Polar Ecology, University of Kiel, Kiel German.
- 2001 Alfred Wegner Institute for Marine Research, Wadden Sea Research Station, Sylt Germany.
- 2000 Program in System Ecology, University of Stockholm.
- 1998 School of Oceanography, Maine Maritime Academy.
- 1997 Department of Biology, Colby College.
- 1997 Department of Oceanography, University of Maine at Orono.
- 1996 Maine Department of Marine Resources.
- 1994 Department of Biology, Bates College.
- 1994 Southeastern Coastal Ocean Research Meeting, Key-note address.
- 1993 Department of Marine Zoology and Marine Chemistry, University of Oslo.
- 1992 Department of Biological Sciences, University of North Carolina at Wilmington.
- 1992 Symposium on Norwegian and Greenland Seas: Institute for Polar Ecology, University of Kiel, Key-note address.
- 1991 Department of Marine, Earth, and Atmospheric Sciences, North Carolina State University
- 1990 North Carolina Shellfish Culture Conference.
- 1990 American Society of Zoologists: "New perspectives in soft-sediment ecology"

- 1989 Department of Agriculture and Fisheries of Scotland.
 1988 Department of Biology, East Carolina University.
 1987 Marine Science Institute, Northeastern University.
 1987 Marine Sciences Department, University of Connecticut at Storrs.
 1986 Department of Biology, Williams College.
 1986 Department of Zoology, University of Texas at Austin.
 1986 Biology Department, Rider College.
 1985 Department of Marine Zoology and Marine Chemistry, University of Oslo.
 1984 Department of Zoology, University of Stockholm.
 1983 Department of Oceanography, Oregon State University.
 1982 Department of Biology, Williams College.
 1982 Bigelow Laboratory for Ocean Sciences.

PUBLICATIONS:

- In Review** Henkes, G.A., Passey, B.H., Wanamaker, A.D., Grossman, E.L., Ambrose W.G., Jr., and Carroll, M.L. Carbonate clumped isotopes compositions of modern marine mollusc and brachiopods shells.
- In Review** Kędra, M., Renaud, P. E., Andrade, H., Goszczko, I., and Ambrose, W.G. Jr., Current benthic community structure, diversity and secondary production in shallow Barents Sea bank (Svalbardbank).
- In Review** Cathey, A.M., Clough, L.M., Carroll, M.L., and Ambrose, W.G., Jr. Gametogenic Development and Spawning of the Arctic Bivalve *Macoma calcaria* (Gmelin, 1791) in Adventfjorden, Svalbard.
- In Revision** Carroll, M.L., Ambrose, W.G., Jr., Locke, W.L., V, Stuart K. R., and Johnson, B.J., Bivalve growth rate and isotopic variability across the Barents Sea Polar Front.
- 2013 Søreide, J. E., Carroll, M.L., Hop H., Ambrose, W.G., Jr., Hegseth, E.N., and Falk-Petersen, S. Trophic structures and carbon flows in Arctic- and Atlantic regimes in Svalbard revealed by stable isotope and fatty acid tracers. *Marine Biology Research* (in press).
- 2012 Vieweg, I., Hop, H., Brey, T., Huber, S., Ambrose, W.G., Jr., Locke, W.L., V, and Gabrielsen, G.W. Persistent organic pollutants in four bivalve species from Svalbard waters. *Environmental Pollution* 161:134-142.
- 2012 Ambrose, W.G., Jr., Renaud, P.E., Locke, W.L., V, Cottier, F.R., Berge, J.R., Carroll, M.L., Levin, B., and Ryan, S. Growth line deposition and variability in growth of two circumpolar bivalves (*Serripes groenlandicus* and *Clinocardium ciliatum*). *Polar Biology* 35:345-354.

- 2012 Carroll, M.L. and Ambrose, W.G., Jr. Benthic Infaunal Community Variability on the Northern Svalbard Shelf. *Polar Biology* 35:1259-1272.
- 2011 Carroll, M.L., Ambrose, W.G., Jr., Levin, B., Ratner, A., Ryan, S., and Henkes, G.A. Climatic regulation of *Clinocardium ciliatum* (bivalvia) growth in the northwestern Barents Sea. *Palaeogeography, Palaeoclimatology, Palaeoecology* 302:10-20.
- 2011 Piepenburg D., Archambault P., Ambrose W.G., Jr., Blanchard A., Bluhm B., Carroll M., Conlan K., Cusson M., Feder H., Grebmeier J.M., Jewett S., Lévesque M., Petryashev W, Sejr M.K., Sirenko B.I., and Wlodarska-Kowalczyk M. The biodiversity of the benthic macro-and megafauna of Arctic shelf seas -- a pan-Arctic synopsis of magnitude and patterns. *Marine Biodiversity* 41:51-70.
- 2011 Carroll, M.L., Ambrose, W.G., Jr., Levin, B.S., Locke, W.L., Henkes, G.A., Hop H., Renaud, and P.E., Pan-Svalbard growth rate variability and environmental regulation in the Arctic bivalve *Serripes groenlandicus*. *Journal of Marine Systems* 88:239-251.
- 2011 Bluhm, B.A., Ambrose, W.G., Jr., Bergmann M., Clough L.M., Gebruk A.V., Hasemann C., Iken K., Klages M., MacDonald I.R., Renaud P.E., and Schewe I., Soltwedel T., Wlodarska-Kowalczyk, M. Biodiversity of the Arctic deep sea benthos. *Marine Biodiversity* 41:87-107.
- 2010 Sypitkowski, E., Bohlen, C., and Ambrose, W.G., Jr. Estimating the frequency and extent of bloodworm digging in Maine from aerial photography. *Fisheries Research* 101:87-93.
- 2009 Sypitkowski, E., Ambrose, W.G., Jr., Bohlen, C., Atherton, T., and Warren, J., Catch Statistics in the Bloodworm Fishery in Maine. *Fisheries Research* 96:303-307.
- 2009 Cochrane, S.J., Denisenko, S.G., Renaud, P.E., Emblow, C.S., Ambrose, W.G., Jr., Ellingsen, and I.H, Skarðhamar, J. Benthic fauna and productivity regimes in the Barents Sea -- ecological implications in a changing Arctic. *Journal of Sea Research* 61:222-233.
- 2009 Carroll, M.L., Johnson, B., Henkes, G.A., McMahon, K.W., Voronkov, A., Ambrose, W.G., Jr., and Denisenko, S.G. Bivalves as indicators of environmental variation and potential anthropogenic impacts in the southern Barents Sea. *Marine Pollution Bulletin* 59:193-206.
- 2009 Jewett, S.C., Clough, L.M., Blanchard, A.L., Ambrose, W.G., Jr., Feeder, H.M., Hoberg, M.K., and Whiting, A. Nearshore macrobenthos of northern Kotzebue Sound, Alaska, with reference to local sewage disposal. *Polar Biology* 32:1665-1680.

- 2009 Ambrose, W.G., Jr., Renaud, P.E., Cochran, S., Denisenko, S.G., Sharðhamar, and J. Polychaete diversity patterns on two Arctic shelves: impacts of ice and primary productivity? *ZooSymposia* 2:457-485.
- 2009 Sun, M-Yi, Clough L.M., Carroll, M.L., Dai, J., Ambrose, W.G., Jr., and Lopez, G.R. Different responses of two common Arctic macrobenthic species (*Macoma balthica* and *Monoporeia affinis*) to phytoplankton and ice algae: Will Climate Change impacts be species specific? *Journal of Marine Experimental Biology* 376:110-121.
- 2008 Sypitkowski, E., Ambrose, W.G., Jr., Bohlen, Curtis, and Warren, J. Harvest efficiency of bloodworms (*Glycera dibranchiata*) on Maine mudflats. *North American Journal of Fisheries Management* 28:1506-1514.
- 2008 Carroll M.L., Denisenko, S.G., Renaud, P.E., and Ambrose, W.G., Jr. Benthic Infauna of the Seasonally Ice-Covered Western Barents Sea: Patterns and Relationships to Environmental Forcing. *Deep Sea Research II* 55:2340-2351.
- 2008 Carroll, M.L., Denisenko, S.G., Voronkov, A., Ambrose, W.G., Jr., Henkes, G.A, Bosheim, S., Fredheim, B., and Gulbrandsen, T.R. Arctic bivalves as indicators of environmental variation. *Proceedings of the SPE 9th International Conference on Health Safety and Environment* 15-17 April 2008, Nice, France SPE111-558.
- 2007 Renaud, P.E., Carroll, M.L., and Ambrose, W.G., Jr. Effects of global warming on Arctic sea-floor communities and its consequences for higher trophic levels. pp. 139-175. In: Duarte, C. and S., Agusti (eds.) "Effects of Global Warming on Polar Ecosystems" Fundacion BBVA, Madrid. [Solicited and copy-edited but not peer-reviewed]
- 2007 Olsen, Harlaug, G., Carroll, M. L., Renaud, P. E., Ambrose, W. G., Jr., Ølsen, R., and Carroll, J. The benthic community response to petroleum-associated components in Arctic versus temperature marine sediments. *Marine Biology* 151:2167-2176.
- 2007 Renaud P.E., Morata, N., Ambrose, W.G., Jr., Bowie, J., and Chiuchiolo, A. Carbon cycling by seafloor communities on the eastern Beaufort Sea shelf. *Journal of Experimental Marine Biology and Ecology* 349:248-260.
- 2007 Sun, M.Y., Carroll, M.L., Ambrose, W.G., Jr., Clough, L.M., Zou, L., and Lopez, G.R. Rapid consumption of phytoplankton and ice algae by Arctic soft-sediment benthic communities: evidence using natural and ¹³C-labeled food materials. *Journal of Marine Research* 65:561-588.

- 2006 Tamslander, T., Renaud, P.E., H. Hop., Carroll, M.L., W.G. Ambrose, Jr., and Hobson, K.A. Trophic relationships and pelagic-benthic coupling during summer in the Barents Sea Marginal Ice Zone revealed by stable carbon and nitrogen isotope measurements. *Marine Ecology Progress Series* 310:33-46.
- 2006 McMahan, K.W., Ambrose, W.G. Jr., Johnson, B.J., Sun, M.Yi., Lopez, G.R., Clough, L.M. and Carroll, M.L. Benthic community response to ice algae and phytoplankton in Ny Ålesund, Svalbard. *Marine Ecology Progress Series* 310:1-14 [Feature Article].
- 2006 Ambrose, W.G., Jr., Carroll, M.L., Greenacre, M., Thorrold, S. R., and McMahan, K., Variation in bivalve growth in a Norwegian high-Arctic fjord: Evidence for local- and large-scale climatic forcing. *Global Change Biology* 12:1595-1607.
- 2005 Bishop, M.J., Rivera, J.A., Irlandi, E.A., Ambrose, W.G., Jr., and Peterson, C.H. Spatio-temporal patterns in the mortality of juvenile bay scallops in North Carolina: ecological detective work to explain reproductive life-history anomalies. *Journal of Experimental Marine Biology and Ecology* 315:127-146.
- 2005 Clough, L.M., Renaud, P.E. and Ambrose, W.G., Jr. Impacts of water depth, sediment pigment concentration, and benthic macrofaunal biomass on sediment oxygen demand in the western Arctic Ocean. *Canadian Journal of Fisheries and Aquatic Sciences* 62:1756-1765.
- 2005 McMahan, K., Johnson, B.J., and Ambrose, W.G., Jr. Diet and movement of the mummichog, *Fundulus heteroclitus*, in a Maine salt marsh assessed using gut contents and stable isotope analyses. *Estuaries* 28:966-973.
- 2005 Ambrose, W.G. Jr., von Quillfeldt, C., Clough, L.M., Tilney, P.V.R. and Tucker, T. The sub-ice patterns of abundance based on images from a remotely operated vehicle. *Polar Biology* 28:784-795.
- 2004 Renaud, P.E., Ambrose, W.G., Jr., Vanreusel, A., and Clough, L.M. Meiofaunal and macrofaunal diversity in the Arctic Ocean. *Journal of Experimental Marine Biology and Ecology* 300 297-306.
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