

VITAE
William G. Ambrose, Jr.

Present Position: Professor

Address: Biology Department
Bates College
Lewiston, Maine 04240
207-786-6114
wambrose@abacus.bates.edu
<http://www.bates.edu/x58333.xml>

Personal: Born: October 16, 1954 U.S.A.
Marital Status: Married to Kirsti A. Sandøy
Child: Emma Ea Ambrose (born 7/90)

Education:

- 1973 The Pingry School, Elizabeth, New Jersey
- 1977 Princeton University, A.B. in Biology
- 1982 University of North Carolina at Chapel Hill, Ph.D. in Marine Sciences

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, 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

Professional Experience: (Cont'd.)

- 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, 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:

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

Honors and Awards:

- | | |
|------|---|
| 1973 | The Pingry School and Princeton University Scholarship |
| 1988 | Magna cum laude; Princeton University |
| 1997 | Nominee, Kroepsch Award for Excellence in Teaching at Bates College |
| 1998 | Nominee, Kroepsch Award for Excellence in Teaching at Bates College |
| 2005 | Winner, Kroepsch Award for Excellence in Teaching at Bates College |

Fellowships:

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

Research Grants:

- | | |
|-----------|--|
| 1979 | University of North Carolina, graduate student research grant (\$2,000) |
| 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) |
| 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) |
| 1987-1988 | American Museum of Natural History Lerner-Gray Fund for Marine Research: "Field investigation of emergence behavior of demersal zooplankton" (\$620) |
| 1988-1989 | University of North Carolina Marine Science Coordinating Committee for Marine Programs: "Emergence behavior of demersal zooplankton" (\$3,600) |

Research Grants: (Cont'd)

- | | |
|-----------|--|
| 1988-1990 | University of North Carolina Sea Grant: "Feasibility test to replenish bay scallop populations and initiate bay scallop aquaculture" (\$12,097) |
| 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) |
| 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" (\$9,482) |
| 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 | University of North Carolina Coordinating Committee for Marine Programs: "Effect of attachment location on growth and survival of juvenile bay scallops," <i>Argopecten irradians</i> " (\$4,000) |
| 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" (\$3,200 plus ship time) |
| 1990-1993 | National Oceanic and Atmospheric Administration: "Accelerating and evaluating the development of restored and created seagrass ecosystems" (\$83,795) |
| 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" (\$15,000 plus ship time) |
| 1991-1992 | Environmental Protection Agency, Albermarle Pamlico Estuarine Study: "Effects of trawling on benthic communities and non-target species" (\$4,070) |
| 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) |

Research Grants: (Cont'd)

- 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 (\$254,311)
- 1992-1993 Cooperative Institute for Fisheries Oceanography: "Role of nutrient rich submarine ground water discharge upon hardbottom habitats and reef fish recruitment: Onslow Bay, North Carolina (Co-P.I. \$20,925)
- 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)
- 1992-1995 National Oceanic and Atmospheric Administration Sea Grant Program "Structure and function of continental shelf hardbottom fisheries habitat" R/CZS-27 (Co-P.I. \$161,616)
- 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)
- 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 (\$156,597)
- 1995 Norwegian Marshall Fund: "Predation on juvenile sea urchins by hapteric fauna" (NKR 32,000; \$5,200)
- 1995 Duke University- University of North Carolina Oceanographic Consortium: "Carbon cycling near the Charleston bump: relative importance of benthic macrofauna and sedimentary microbes" (\$40,115)
- 1995 Howard Hughes Student and Faculty Research Grant "Carbon cycling near the Charleston bump: relative importance of benthic macrofauna and sedimentary microbes" (\$9,300)
- 1995 The American Scandinavian Foundation: "Predation on juvenile sea urchins by hapteric fauna" (\$2,000)
- 1995 National Science Foundation, Division of Polar Programs: "Arctic Ocean Section Sediment Workshop" (Supplement to OPP-9400092, \$8,350)

Research Grants: (Cont'd)

- 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)
- 1996 NATO, Scientific Affairs Division: "NATO Advanced Research Workshop: Biogeochemical cycling in marine sediments" (\$28,220)
- 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)
- 1997 Howard Hughes Student and Faculty Research Grant "Spatial patterns and benthic remineralization of ice algal communities in the Chukchi Sea" (P.I.\$14,500)
- 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)
- 2002 National Science Foundation: Cultural Anthropology, Arctic Social Sciences, Arctic Natural Sciences Programs: " Investigating ecological change in the nearshore Kotzebue Sound Ecosystem: Simultaneous application of traditional and scientific knowledge" (Co-P.I. \$795,000)
- 2002 The Research Council of Norway: "On Thin Ice? Climatic Influence on Energy Flow and Trophic Structure in Arctic Marine Ecosystems" (Foreign investigator, \$627,333)
- 2002 National Science Foundation: "Digestibility of ice algae and phytoplankton: The potential impacts of changing food supply to the arctic benthos" (Co. P.I. \$124,000)
- 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 The Research Council of Norway: "Carbon flux and ecosystem feed back in the northern Barents Sea in an era of climate change (CABANERA)" (Foreign investigator, \$900,000)

Research Grants: (Cont'd)

- 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)
- 2004 Maine Sea Grant Program: “Preliminary investigation of sediment disturbance from blood worm digging” (P.I.\$3000)
- 2004 Maine Department of Marine Resources: “Aerial survey of sediment disturbance from blood worm digging” (P.I. \$1,000)
- 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)
- 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)
- 2006-2007 Maine Department of Marine Resources Harvest Size, growth, and harvest efficiency of *Glycera dibranchiata*/ from intertidal mud flats in mid-coast Maine (P.I. \$2500)
- 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)
- 2008-2009 Maine Sea Grant Program: Growth and long-term abundance patterns of the bloodworm (*Glycera dibranchiata*) (P.I. \$49,000)
- 2008-2009 Maine Department of Marine Resources Growth and long-term abundance patterns of the bloodworm (*Glycera dibranchiata*). (P.I. \$7000)
- 2009-2012 National Science Foundation: “Changes in baseline conditions in Gulf of Maine coastal ecosystems over the Last 4000 years” (Co. P.I \$392,803)
- 2010-2013 National Science Foundation: “Shetland Islands Climate and Settlement Project: Multidisciplinary Analysis of Environmental Catastrophes on Northern Coastlines” (Co. P.I. \$257,324)

William G. Ambrose, Jr.

Page 8

Professional Societies:

Arctic Institute of North America
British Ecological Society
Ecological Society of American
Fulbright Alumni Association
Sigma Xi

Professional Responsibilities:

Member Stonington Connecticut Shellfisheries Commission 1986-1988

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

American Scandinavian Foundation Fellowship Committee 1997-2002, 2007-present

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

Maine Ecological Characterization Working Group, member 2003-2006

Editorial Board, Journal Shellfish Research 2010-present

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 for 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

Professional Responsibilities (cont'd)

Manuscript reviewer for *American Zoologist*, *Annals Zoologica Fennici*, *Ecology*, *Estuarine, Coastal and Shelf Science*, *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 Shellfisheries Association*, *Journal of Applied Ecology*, *Limnology and Oceanography*, *Marine Biology*, *Marine Biology Research*, *Marine Ecology Progress Series*, *Oecologia*, *Oikos*, *Ophelia*, *Polar Biology*

Papers Presented:

- 1977 Benthic Ecology Meetings (New Haven, Connecticut)
- 1980 New England Estuarine Research Federation Meetings (Southport, Maine)
- 1983 European Marine Biological Symposium (Plymouth, England)
- 1985 European Marine Biological Symposium (Hirtshals, Denmark)
- 1987 Benthic Ecology Meetings, Session Chairman (Raleigh, North Carolina)
- 1989 Benthic Ecology Meetings (Solomons, Maryland)
- 1989 7th International Pectinid Workshop (Portland, Maine)
- 1989 European Marine Biological Symposium (Oban, Scotland)
- 1990 Benthic Ecology Meetings, Session Chairman (Mobil, Alabama)
- 1990 National Shellfisheries Association Annual Meeting (Williamsburg, Virginia)
- 1990 European Marine Biological Symposium (Ferrara, Italy)
- 1992 Benthic Ecology Meetings, Session Chairman (Newport, Rhode Island)
- 1993 Benthic Ecology Meetings (Mobile, Alabama)
- 1993 The Oceanographic Society (Seattle, Washington)
- 1993 American Society of Limnology and Oceanography (Alberta, Canada)
- 1994 Benthic Ecology Meetings (Mystic, Connecticut)

Papers Presented: (Cont'd)

- 1994 European Marine Biological Symposium (Vienna, Austria)
- 1995 Northeast Water Polynya Symposium , Session Chairman (Helsingør, Denmark)
- 1995 Society of Sedimentary Geology (St. Petersburg, Florida)
- 1996 American Geophysical Union (San Diego, California)
- 1996 Benthic Ecology Meetings (Columbia, South Carolina)
- 1997 Benthic Ecology Meetings (Portland, Maine)
- 1998 Benthic Ecology Meetings (Melbourne, Florida)
- 1999 Benthic Ecology Meetings (Baton Rouge, Louisiana)
- 1999 American Society of Limnologists and Oceanographers (Sante Fe, New Mexico)
- 2000 Benthic Ecology Meetings (Wilmington, North Carolina)
- 2002 Benthic Ecology Meetings (Orlando, Florida)
- 2002 Northeast Estuarine Society Meeting (Bar Harbor, Maine)
- 2003 Benthic Ecology Meetings (Groton, Connecticut)
- 2004 American Association of Oceanography and Limnology (Honolulu, Hawaii)
- 2004 Benthic Ecology Meetings (Mobile Alabama)
- 2005 Benthic Ecology Meetings (Williamsburg, Virginia)
- 2005 American Fisheries Society 135th Annual Meeting (Anchorage, AK)
- 2005 Estuarine Research Federation, Biennial Meeting (Norfolk)
- 2006 American Geophysical Union, Annual Meeting, Honolulu Hawaii, February 2006
- 2006 Benthic Ecology Meeting (Quebec City, Canada)

- 2007 Arctic Forum (Tromsø Norway)
- 2007 England Estuarine Research Society Spring Meeting (Bootbay Harbor, ME)
- 2007 1st Annual Sclerochronology Conference (St. Petersburg, Florida)
- 2007 234th American Chemical Society National Meeting (Boston, MA)
- 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)
- 2009 American Society Limnology and Oceanography (Nice, France)
- 2009 Benthic Ecology Meetings (Corpus Christi, TX)
- 2009 European Geophysical Union (Vienna, Austria)
- 2009 Arctic Workshop (Lewiston, Maine)
- 2009 Western Alaskan Interdisciplinary Conference (Nome, Alaska)
- 2009 Arctic Frontiers (Tromsø, Norway)
- 2010 Arctic Frontiers (Tromsø, Norway)
- 2010 International Polar Year Oslo (Oslo, Norway)
- 2010 2nd International Sclerochronology Conference
- 2011 Benthic Ecology Meeting (Mobile, Alabama)
- 2011 American Geophysical Union (San Francisco, California)
- 2011 Ecosystem Studies of Sub-Arctic Seas (Seattle, Washington)

Invited Seminars:

- 1982 Department of Biology, Williams College
- 1982 Bigelow Laboratory for Ocean Sciences
- 1983 Department of Oceanography, Oregon State University
- 1984 Department of Zoology, University of Stockholm
- 1985 Department of Marine Zoology and Marine Chemistry, University of Oslo
- 1986 Department of Biology, Williams College
- 1986 Department of Zoology, University of Texas at Austin
- 1986 Biology Department, Rider College
- 1987 Marine Science Institute, Northeastern University
- 1987 Marine Sciences Department, University of Connecticut at Storrs
- 1988 Department of Biology, East Carolina University
- 1989 Department of Agriculture and Fisheries of Scotland
- 1990 North Carolina Shellfish Culture Conference
- 1990 American Society of Zoologists: "New perspectives in soft-sediment ecology"
- 1991 Department of Marine, Earth, and Atmospheric Sciences, North Carolina State University
- 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
- 1993 Department of Marine Zoology and Marine Chemistry, University of Oslo
- 1994 Department of Biology, Bates College

Invited Seminars: (Cont'd)

William G. Ambrose, Jr.

Page 13

- 1994 Southeastern Coastal Ocean Research Meeting, Key-note address
- 1996 Maine Department of Marine Resources
- 1997 Department of Biology, Colby College
- 1997 Department of Oceanography, University of Maine at Orono
- 1998 School of Oceanography, Maine Maritime Academy
- 2000 Program in System Ecology, University of Stockholm
- 2001 Abo Akademi, Univestiy Abo, Finland
- 2001 Norwegian Polar Institute, Akvaplan-Niva, Tromsö Norway
- 2001 Institute for Polar Ecology, University of Kiel, Kiel German
- 2001 Alfred Wegner Institute for Marine Research, Wadden Sea Research Station, Sylt Germany
- 2003 Department of Marine Science, University of New Hampshire
- 2006 Department of Biology Bowdoin College
- 2007 Arctic Frontiers, Tromsø, Norway
- 2010 Alfred Wegner Institute for Marine Research, Bremerhaven, Germany

Publications:

- 1978 Jones, D.S., I. Thompson, and W.G. Ambrose. Age and growth determinations for the Atlantic surf clam *Spisula solidissima* based on internal growth lines in shell cross sections. *Marine Biology* 47:63-70.
- 1980 Ambrose, W.G., Jr., D. Jones, and I. Thompson. Distance from shore and growth rate of the suspension feeding bivalve *Spisula solidissima*. *Proceedings of the National Shellfisheries Association* 70:207-215.

Publications: (Cont'd)

- 1982 Peterson, C.H., W.G. Ambrose, Jr., and J.H. Hunt. A field test of the swimming response of the bay scallop (*Argopecten irradians*) to changing biological factors. *Bulletin of Marine Science* 32:939-944.
- 1984 Ambrose, W.G., Jr. Role of predatory infauna in structuring marine soft-bottom communities. *Marine Ecology Progress Series* 17:109-115.
- 1984 Ambrose, W.G., Jr. Influence of residents on the development of a marine soft-bottom community. *Journal of Marine Research* 42:633-654.
- 1984 Ambrose, W.G., Jr. Influences of predatory polychaetes and epibenthic predators on the structure of a soft-bottom community in a Maine estuary. *Journal of Experimental Marine Biology and Ecology* 81:115-145.
- 1984 Ambrose, W.G., Jr. Increased emigration of the amphipod *Rhepoxynius abronius* (Barnard) and the polychaete *Nephtys caeca* (Fabricius) in the presence of invertebrate predators. *Journal of Experimental Marine Biology and Ecology* 81:115-145.
- 1985 Peterson, C.H. and W.G. Ambrose, Jr. Potential habitat dependence in deposition rate of presumptive annual lines in shells of the bivalve *Protothaca staminea*. *Lethaia* 18:257-260.
- 1985 Commito, J.A. and W. G. Ambrose, Jr. Predatory infauna and trophic complexity in soft-bottom communities. In: *Proceedings of the Nineteenth European Marine Biological Symposium*, edited by P.E. Gibbs, Cambridge University Press, Cambridge, pp. 323-333.
- 1985 Gee, J.M., R.M. Warwick, M. Schaanning, J.A. Berge, and W.G. Ambrose, Jr. Effects of organic enrichment on meiofaunal abundance and community structure in sublittoral soft sediments. *Journal of Experimental Marine Biology and Ecology* 91:247-262.
- 1985 Commito, J.A. and W.G. Ambrose, Jr. Multiple trophic levels in soft-bottom communities. *Marine Ecology Progress Series* 26:289-293.

- 1986 Ambrose, W.G., Jr. Estimate of removal rate of *Nereis virens* (Polychaeta: Nereidae) from an intertidal mudflat by Gulls (*Larus* spp.). *Marine Biology* 90:243-247.
- 1986 Warwick, R.M., J.M. Gee, J.A. Berge, and W.G. Ambrose, Jr. Effects of the feeding activity of the polychaete *Streblosoma bairdi* (Malmgren) on meiofaunal abundance and community structure. *Sarsia* 71:11-16.
- 1986 Ambrose, W.G., Jr. Experimental analysis of density dependent emigration of the amphipod *Rhepoxynius abronius*. *Marine Behavior and Physiology* 12:209-216.
- 1986 Ambrose, W.G., and Jr. Importance of predatory infauna in marine soft-bottom communities: Reply to Wilson. *Marine Ecology Progress Series* 32:41-45.
- 1986 Berge, J.A., M. Schaanning, T.K. Bakke, K. Sandøy, G.M. Skeie, and W.G. Ambrose, Jr. A soft-bottom sublittoral mesocosm by the Oslofjord: Description performance and examples of application. *Ophelia* 26:37-54.
- 1987 Hunt, J.H., W.G. Ambrose, Jr. and C.H. Peterson. Effects of the gastropod *Ilyanassa obsoleta* (Say) and the bivalve *Mercenaria mercenaria* (Linne) on larval settlement and juvenile recruitment. *Journal of Experimental Marine Biology and Ecology* 108:229-240.
- 1988 Ambrose, W.G., Jr. and H. P. Leinaas. Intertidal soft-bottom communities on the west coast of Spitzbergen. *Polar Biology* 8:393-395.
- 1989 Lee, H., II and W.G. Ambrose, Jr. Life after competitive exclusion: alternative strategies of a competitive inferior. *Oikos* 56:424-427.
- 1990 Ambrose, W.G., Jr. and H. P. Leinaas. Size specific distribution and abundance of amphipods (*Gammarus setosus*) on an Arctic shore: Effects of shorebird Predation? In: *Proceedings of the Twenty-Fourth European Marine Biological Symposium*, ed. by M. Barnes and R.N. Gibson, Aberdeen University Press, pp.. 239-249.
- 1991 Ambrose, W.G., Jr. Are infaunal predators important in structuring marine soft-bottom communities? *American Zoologist* 31:849-860

- 1991 Ambrose, W.G., Jr. and J. Lin. Settlement preference of *Argopecten irradians* larvae for artificial substrates. In: *An International Compendium of Scallop biology and Culture*, edited by S.E. Shumway, World Aquaculture Society, pp. 16-20.
- 1992 West, T.L. and W.G. Ambrose, Jr. Abiotic and biotic effects on population dynamics of oligohaline benthic invertebrates. In: *Proceedings of the Twenty-Fifth European Marine Biological Symposium*, edited by V.U. Ceccherilli, R. Rossi, and A. Carrieri. Olsen and Olsen Pub., pp. 189-194.
- 1992 Ambrose, W.G., Jr., C.H. Peterson, H.C. Summerson, and J. Lin. Experimental tests of factors affecting recruitment of bay scallops (*Argopecten irradians*) to spat collectors. *Aquaculture* 108:67-86
- 1992 Ambrose, W.G., Jr., and B.A. Irlandi. Height of attachment on seagrass leads to trade-off between growth and survival in the bay scallop *Argopecten irradians*. *Marine Ecology Progress Series* 90:45-51
- 1992 Leinaas, H.P., W.G. Ambrose, Jr. Utilization of different foraging habitats by the purple sandpiper *Calidris maritima* on a Spitsbergen beach. *Cinclus* 15:85-91
- 1993 Singhas, L.S., T.L. West, and W.G. Ambrose, Jr. Occurrence of *Echeneibothrium* (Platyhelminthes, Cestoda) in the Calico Scallop, *Argopecten gibbus*, from North North Carolina. *Fishery Bulletin* 91:179-181
- 1993 Ambrose, W.G., Jr., Effects of predation and disturbance by Ophiuroids on soft-bottom community structure in Oslofjord: Results of a mesocosm study. *Marine Ecology Progress Series* 97:225-236
- 1993 Deming, J., M. Johnson, W. Smith, W. Ambrose, E. Bauerfeind, B. Booth, K. Cochran, T. Hopkins, R. Kristensen, P. Minnett, J. Niebauer, G. Rowe, S. Smith D. Wallace, I. Walsh. Northeast Water Polynya: Polar Sea Cruise Report. *EOS, Trans. Amer. Geophys. Union* 74:185, 195-196
- 1994 Olafsson, E.B., C.H. Peterson, and W.G. Ambrose, Jr. Does recruitment limitation structure populations and communities of macroinvertebrates in marine soft-sediments: The relative significance of pre- and post-settlement processes? *Oceanography and Marine Biology An Annual Review* 32:65-109
- 1994 Posey, M.H., and W. G. Ambrose, Jr. Effects of proximity to an offshore hard-bottom reef on infaunal abundances. *Marine Biology* 118:745-753

Publications: (Cont'd)

- 1994 Ambrose, W.G., Jr. M. Ahrens, A. Brandt, W. Dimmler, G. Graf, J. Gutt, R. Herman, P. Jensen, D. Piepenburg, Q. Queisser, P. Renaud, A. Scheltz, and L. Thomsen. Benthos. *Berichte zur Polarforschung* 142:106-112
- 1994 Krause, M.K., W.S. Arnold, and W.G. Ambrose, Jr. Morphological and genetic variation among three populations of calico scallops, *Argopecten irradians*. *Journal of Shellfish Research* 13:529-537
- 1995 Ambrose, W.G., Jr. and P.E. Renaud. Benthic response to water column productivity: evidence for benthic-pelagic coupling in the Northeast Water Polynya. *Journal of Geophysical Research* 100: (C3):4411-4421
- 1995 Irlandi, E.A., W.G. Ambrose, Jr., and B.A. Orlando. Landscape Ecology and the marine environment: How spatial configuration of seagrass habitat influences growth and survival of the bay scallop, *Argopecten irradians*. *Oikos* 72:307-313
- 1995 Hobson, K.A., W.G. Ambrose, Jr., and P.E. Renaud. Sources of primary production benthic-pelagic coupling, and trophic relationships within the Northeast Water Polynya: Insights from $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ analysis. *Marine Ecology Progress Series* 128: 1-10
- 1996 Renaud, P.E., W.G. Ambrose, Jr., S.R. Riggs, and D.A. Syster. Multi-level effects of severe storms on an offshore temperate reef system: benthic sediments, macroalgae, and implications for fisheries. *Marine Ecology* 17:383-398
- 1997 Ambrose, W.G., Jr. and Paul E. Renaud. Does a pulsed food supply to the benthos affect polychaete recruitment patterns in the Northeast Water Polynya? *Journal of Marine Systems*. 10:483-495
- 1997 Piepenburg, D., W.G. Ambrose, Jr., A. Brandt, P. E. Renaud, M.J. Ahrens, and P. Jensen. Benthic community patterns reflect water column process in the Northeast Water Polynya (Greenland) *Journal of Marine Systems*. 10:467-482
- 1997 Clough, L.M., W.G. Ambrose, Jr., C. Ashjian, D. Piepenburg, P.E. Renaud, and S. Smith. Meroplankton in the Northeast Water Polynya: does larval distribution mirror benthic abundance patterns? *Journal of Marine Systems*. 10:343-357
- 1997 Renaud, P.E., S.R. Riggs, W.G. Ambrose, Jr., K. Schmid, and S. W. Snyder. Biological-Geological interactions: storm effects of macroalgal communities mediated by sediment distribution patterns. *Continental Shelf Research*. 17:37-56

- 1997 Clough, L.M., W.G. Ambrose Jr., K. Cochran, K. Barnes, P. Renaud, and R. Aller. Bioturbation, biomass, and infaunal abundance in the sediments of the Arctic Ocean. *Deep Sea Research Part II*. 44:1683-1704.
- 1998 Riggs, S.R., W.G. Ambrose, Jr., J.W. Cook, S.W. Snyder, and S.W. Snyder. Sediment production model for sediment-starved continental margins: the interrelationship between hardbottoms, sedimentologic and benthic community processes, and storm dynamics. *Journal of Sedimentary Research*. 68:155-168
- 1998 Gallagher, M.L., W.G. Ambrose, Jr., and P.E. Renaud. Biochemical composition of several benthic invertebrates from the Northeast Water Polynya: Evidence for spatial variability in particulate organic matter input. *Polar Biology*. 19:167-171.
- 1998 Ambrose, W.G. Jr., M. Dawson, C. Gailey, P. Ledkovsky, S. O'Leary, B. Tassinari, H. Vogel, and C. Wilson. Effects of Baitworm digging on the soft-shelled clam, *Mya arenaria* in Maine: shell damage and exposure on the sediment surface. *Journal of Shellfish Research*. 17: 1043-1050
- 1999 Irlandi, E.A., B.A. Orlando, and W.G. Ambrose, Jr. Influence of seagrass habitat and patch size on growth and survival of juvenile bay scallops (*Argopecten irradians concentricus* Say). *Journal of Experimental Marine Biology and Ecology*. 235:21- 44
- 1999 Renaud, P.E., D.A. Syster, and W.G. Ambrose, Jr. Do recruitment patterns determine community structure of continental shelf benthos off North Carolina, U.S.A.? *Journal of Experimental Marine Biology and Ecology*. 237:89-106
- 1999 Leinaas, H.P., W.G. Ambrose, Jr. Decision between a small and large prey species: reduced energy acquisition by pre-migratory purple sandpipers, *Calidris maritima*, on Svalbard. *Polar Biology* 22:264-270.
- 2000 West, T.L., L.M. Clough, and W.G. Ambrose, Jr. Assessment of function in an oligohaline environment: Lessons learned by comparing created and natural habitats. *Ecological Engineering* 15: 303-321.
- 2001 Vanreusel, A. L.M. Clough, K. Jacobsen, W. Ambrose, J. Jivaluk, V. Ryheul, R. Herman, M. Vincx. Meiobenthos of the Central Arctic Ocean with special emphasis on the nematode community structure. *Deep Sea Research*. 47:1855-1879.
- 2001 Ambrose, W.G., Jr., L.M. Clough, P.R. Tilney, L. Beer. Role of echinoderms in benthic remineralization in the Chukchi Sea. *Marine Biology*. 139:937-949.

Publications: (Cont'd)

- 2003 Quillfeldt, Cecilie H., William G. Ambrose, Jr. and Lisa M. Clough. High numbers of diatom species in first year ice from the Chukchi Sea. *Polar Biology*. 26:806-818.
- 2005 Bishop, Melanie J., Jose A. Rivera, Elizabeth A. Irlandi, William G. Ambrose Jr., Charles H. Peterson. 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., P. E. Renaud and W.G. Ambrose, 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., B.J. Johnson, W.G. Ambrose, 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., C. von Quillfeldt, L.M. Clough, P. V.R. Tilney and T. Tucker. The sub-ice patterns of abundance based on images from a remotely operated vehicle. *Polar Biology* 28:784-795.
- 2006 Tamelander T., P.E. Renaud, H. Hop., M.L. Carroll, W.G. Ambrose Jr., and K.A. Hobson. 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, Ming-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 Renaud, P.E., W.G. Ambrose, Jr., A. Vanreusel, and L.M. Clough. Meiofaunal and macrofaunal diversity in the Arctic Ocean. *Journal of Experimental Marine Biology and Ecology* 300 297-306.
- 2006 Ambrose, W.G. Jr., M. L. Carroll, M. Greenacre, S. R. Thorrold, and K. McMahan. Variation in bivalve growth in a Norwegian high-Arctic fjord: Evidence for local- and large-scale climatic forcing. *Global Change Biology* 12:1595-1607.

- 2007 Renaud, P.E., M.L. Carroll, and W.G. Ambrose, 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, Gro Harlaug, M. L. Carroll, P. E. Renaud, W. G. Ambrose, Jr., R. Ølsen, and J. Carroll. The benthic community response to petroleum-associated components in Arctic versus temperature marine sediments. *Marine Biology*. 151:2167-2176.
- 2007 Renaud P.E., N. Morata, W.G. Ambrose Jr., J. Bowie, and A. Chiuchiolo. Carbon cycling by seafloor communities on the eastern Beaufort Sea shelf. *Journal of Experimental Marine Biology and Ecology*. 349:248-260.
- 2007 Sun, Ming-Yi, M. L. Carroll, W. G. Ambrose Jr., L.M. Clough, L. Zou, G. R. Lopez. 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.
- 2008 Sypitkowski, E. William G. Ambrose, Jr., Curtis Bohlen, Joe Warren. Harvest efficiency of bloodworms (*Glycera dibranchiata*) on Maine mudflats. *North American Journal of Fisheries Management*. 28:1506-1514.
- 2008 Carroll M.L., S.G. Denisenko, P.E. Renaud, W.G. Ambrose, 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., S.G. Denisenko, A. Voronkov, W.G. Ambrose Jr., G. Henkes, S. Bosheim, B. Fredheim, T.R. Gulbrandsen. 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.
- 2009 Sypitkowski, E. William G. Ambrose, Jr., Curtis Bohlen, Tom Atherton, and Joe Warren, 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, I.H, Skarðhamar, J. Benthic fauna and productivity regimes in the Barents Sea - ecological implications in a changing Arctic. *Sea Research*. 61:222-233.

- 2009 Carroll, M.L. Beverly Johnson, Gregory Henkes, Kelton W. McMahon, Andrey Voronkov, William G. Ambrose, Jr., and Stanislav G. Denisenko 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., L.M. Clough, A.L. Blanchard, W.G. Ambrose, Jr., H.M. Feeder, M.K. Hoberg, A. Whiting. Nearshore macrobenthos of northern Kotzebue Sound, Alaska, with reference to local sewage disposal. *Polar Biology*. 32:1665-1680.
- 2009 Ambrose, W.G., Jr., P.E. Renaud, S. Cochran, S.G. Denisenko and J. Shardaḥamar. Polychaete diversity patterns on two Arctic shelves: impacts of ice and primary productivity? *ZooSymposia*. 2:457-485
- 2009 Sun, M-Yi, L. M. Clough, M. L. Carroll, J. Dai, W. G. Ambrose Jr., G. R. Lopez. 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.
- 2010 Sypitkowski, E., Curtis Bohlen, William G. Ambrose, Jr. Estimating the frequency and extent of bloodworm digging in Maine from aerial photography. *Fisheries Research*. 101:87-93.
- 2011 Carroll, Michael L. William G. Ambrose, Jr., Ben Levin, Adam Ratner, Stuart Ryan, Gregory A. Henkes. 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., 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., Wlodarska-Kowalczuk 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 Bluhm B.A., Ambrose Jr. W.G., Bergmann M., Clough L.M., Gebruk A.V., Hasemann C., Iken K., Klages M., MacDonald I.R., Renaud P.E., Schewe I., Soltwedel T., Wlodarska-Kowalczuk, M. Biodiversity of the Arctic deep sea benthos. *Marine Biodiversity*. **In Press** DOI10.1007/s12526-010-0078-4.

William G. Ambrose, Jr.

Page 22

- 2011 Carroll, M.L., Ambrose, Jr. W.G., Benjamin S. Levin, B.S., William E. Locke, W.E., Henkes G.A., Hop H., Renaud, P.E. Pan-Svalbard growth rate variability and environmental regulation in the Arctic bivalve *Serripes groenlandicus*. *Journal of Marine Systems*. **In Press** doi. 10.1016/j.jmarsys.2011.04.010

Books

- 1997 Gray, J.S., W.G. Ambrose, Jr., and A. Szanizwska. *Ecological Processes in Marine Sediments*. Proceedings of the NATO Advanced Research Workshop, Hell, Poland, NATO Advanced Science Series, Kluwer Academic Publishers, Dordrecht, The Netherlands. 236 pp.
- 2011 Whiting, A., D. Griffith, S. Jewett, L. Clough, W. Ambrose, and J. Johnson. *Combining Inupiaq and Scientific Knowledge: Ecology in Northern Kotzebue Sound, Alaska*. Alaska Sea Grant, University of Alaska Fairbanks, SG-ED-72, Fairbanks. 71 pp.

Current as of May 2011