

CURRICULUM VITAE

Suzanne L. Strom

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EDUCATION

University of Washington, Seattle, WA: Ph.D., Biological Oceanography, 1990
Harvard University, Cambridge, MA: M.A., Biology, 1983
Middlebury College, Middlebury, VT: B.A., Biology, 1981 (magna cum laude)

PROFESSIONAL HISTORY

1995-present Marine Scientist, Western Washington University
1992-1995 Research associate, Western Washington University
1991-92 Postdoctoral research associate, University of Texas at Austin
1985-90 Research assistant, University of Washington
1983 Research assistant, Harvard University
1981-82 Research technician, Department of Nuclear Medicine, Children's
Hospital, Boston, MA

Thirteen months accumulated research time at sea

RESEARCH INTERESTS

Planktonic food web interactions, including predator-prey relationships and chemical ecology
Role of planktonic organisms in marine biogeochemistry
Physiology, ecology and functional morphology of marine protozoa
North Pacific, Gulf of Alaska and Bering Sea biological oceanography

ORGANIZATIONS

American Society of Limnology and Oceanography, Phycological Society, The Oceanography Society, American Geophysical Union

COMMUNITY SERVICE

Manuscript/Proposal Review Service:

Reviewer for: *Limnology and Oceanography, Marine Ecology Progress Series, Deep-Sea Research, Bulletin of Marine Science, Estuarine and Coastal Shelf Science, Journal of Marine Research, Aquatic Microbial Ecology, Journal of Experimental Marine Biology and Ecology, Journal of Geophysical Research, Marine Biology, Hydrobiologia, Journal*

of Phycology, Geophysical Research Letters, Journal of Plankton Research, Progress in Oceanography, Harmful Algae, The ISME Journal, Science, NSF, Sea Grant, NOAA, EPA, Natural Environment Research Council (UK), Washington State Department of Ecology.

Proposal Review Panel Service (recent):

National Science Foundation: Biological Oceanography core program (Nov 2007)
CORE Ocean Observatories Initiative (OOI) (Sept 2005)
National Science Foundation/European Commission: Ecology and Oceanography of Harmful Algae (November 2003)
National Science Foundation: Biological Oceanography core program (May 2002)
National Science Foundation: Biocomplexity in the Environment (June 2001)
National Science Foundation: Long-term Ecological Research program (Dec. 1999)
National Science Foundation: Biological Oceanography core program (May 1998)

National/Regional Committee Service

Member, UNOLS Fleet Improvement Committee (1994 to 1998)
Organizer and Co-chair: 1998 Pacific Estuarine Research Society annual meeting
Member, Design Committee, Alaska Region Research Vessel (2000 to 2003)
Member, Ocean Carbon Cycling Research Program advisory panel to NSF (2001 to 2003)
Member, GLOBEC Northeast Pacific Program Science Steering Committee (2000 to 2005)
Organizer, GLOBEC Northeast Pacific Process Group Meetings, Shannon Point Marine Center (November 2002, March 2004)
Organizer, Student Presentation Judging, Estuarine Research Federation meeting, Seattle (2003)
Member, U.S. GLOBEC Science Steering Committee (January 2004 to Dec 2006)
Oversight Committee, Alaska Regional Research Vessel (2008 to present)
Associate Editor, Journal of Plankton Research (2008 to present)
Chief Scientist, R.V. Alpha Helix GLOBEC cruises to Gulf of Alaska:
HX 242 (15 days, April 2001); HX 244 (15 days, May 2001); HX 271 (22 days, May 2003)

Western Washington University Committee Service

Radiation Safety Committee (9/04 to present)
SPMC Analytical Laboratory oversight committee (6/05 to present)
Environmental Sciences Faculty Search Committee - Climate Change position (10/05 to 2/06)

GRANTS AND CONTRACTS

Research:

NSF Biological Oceanography: Biological rate processes in the subsurface chlorophyll maximum: a chemotaxonomic analysis. 9/92 - 8/95. (with N. Welschmeyer) \$360,000.
Department of Energy: Assimilation and transfer of carbon in oligotrophic and eutrophic coastal water columns. 9/92 - 8/94. \$55,830.
NSF Biological Oceanography: Chlorophyll-derived pigments: tracers for the activities of marine protozoa. 6/93 - 5/96. \$145,000.
Department of Energy: Mechanisms of dissolved organic carbon cycling in an ocean margin (with R. Benner, M. Dagg). 9/94 - 8/97. \$255,418.

Washington Sea Grant: Microbial communities in nearshore waters: links to larval crabs (with S. Sulkin). 7/95 – 12/96. \$16,872.

NSF Biological Sciences C-RUI: Response of tropical marine symbioses to environmental stresses: an integrated approach (with G. Muller-Parker and J. Hardy). 8/97 – 7/00. \$520,249.

NSF/NOAA: Retrospective analysis of Northeast Pacific microzooplankton: a window on physical forcing of food web structure (GLOBEC). 10/97 – 9/99. \$48,460.

NSF Biological Oceanography: Phytoplankton chemical defenses against protozoan grazers (with G. Wolfe). 2/98 – 1/01. \$385,425.

Skagit County/Waste Action Project: Plankton of Fidalgo Island seagrass beds. 9/97 – 8/99. \$20,000.

Washington Sea Grant: Diets of larval crabs (with S. Sulkin). 2/98 – 7/99. \$15,252.

NSF Ocean Sciences: Minorities in Marine Science Undergraduate Program (MIMSUP) at the Shannon Point Marine Center (with S. Sulkin, B. Bingham, G. Muller-Parker). 4/98 – 3/03. \$545,462.

NSF Ocean Sciences: JGOFS SMP: Food-web regulation of particulate export flux in high nitrate-low chlorophyll regions (with B. Frost, J. Murray, H. Loukos). 3/99 – 2/02. \$60,198.

NSF Polar Programs: Zooplankton grazing on the Bering Sea coccolithophorid bloom. 5/99 – 4/00. \$21,677 (as UC Irvine subcontract to G. Hunt grant).

NSF Biological Oceanography: Light-aided digestion of phytoplankton prey by heterotrophic protist grazers. 9/00 – 8/03. \$437,140.

NOAA/NSF: GLOBEC 2000: Responses of the *Neocalanus* spp. – microplankton community to physical forcing in the coastal Gulf of Alaska. 12/00 – 11/05. \$654,757.

NOAA/NSF: GLOBEC 2000: Role of microzooplankton in the reproduction of coastal Gulf of Alaska copepods. 1/01 – 9/05. \$85,132 (as NOAA AFSC subcontract to J. Napp grant).

NSF Chemical Oceanography: Stress-induced lipid accumulation in *Emiliania huxleyi*: impact on trophic ecology and paleothermometry. 8/00 – 7/03. \$24,313 (as CSU Chico subcontract to G. Wolfe grant).

Washington Sea Grant: Novel approaches to the study of harmful algal blooms in Washington estuarine waters. 2/01 – 1/03. \$99,439.

NSF Ocean Sciences: A Minorities in Marine Science Undergraduate Program at Shannon Point Marine Center (with S. Sulkin, B. Bingham, G. Muller-Parker). 3/03 – 2/08. \$849,735.

NSF Biological Oceanography: Collaborative Research: Investigation of a phytoplankton DMSP-based chemical defense system active against protist grazers (with G. Wolfe). 9/03 – 9/06. \$411,913.

NSF Polar Programs: Collaborative Research: Cross-shelf transport and post-bloom new production near the Pribilof Islands. 9/03 – 8/05. \$163,014.

NSF Biological Oceanography: Are diatoms chemically or mechanically defended against protist grazers? (with F. Prah). 3/06 – 2/09. \$467,591.

EPA ECOHAB Program: Identifying regulatory mechanisms for *Heterosigma akashiwo* bloom formation: predation interactions with algal behavior and resource use (with S. Menden-Deuer). 9/06 to 8/09. \$498,900.

NSF Biological Oceanography: Collaborative Research: U.S. GLOBEC NEP Phase IIIb-CGOA: Links between climate and planktonic food webs (with M. Dagg, K. Coyle, R. Hopcroft). 9/06 to 8/09. \$186,340.

NSF Biological Oceanography: Collaborative Research: A post-genomic approach to *Synechococcus* – grazer interactions (with B. Palenik and B. Brahmsha). 3/07 to 2/10. \$252,974.

Equipment:

NSF Ocean Technology: Acquisition and testing of Flow CAM for plankton research (with G. Wolfe). 11/98 – 10/00. \$36,878.

NSF Biological Sciences: Physiological and chemical equipment for studying interactions between marine organisms (with K. Van Alstyne and G. Muller-Parker). 5/99 – 4/01. \$66,739.

NSF Biological Sciences: A CHNS Analyzer for examining the biochemical composition of marine organisms (with K. Van Alstyne, B. Bingham, S. Sulkin, G. Muller-Parker). 6/01 – 4/03. \$40,158.

NSF: RUI: An HPLC-MS for conducting studies of responses to environmental stresses in marine organisms (with K. Van Alstyne, B. Bingham). 5/03 – 4/05. \$164,673.

Pending:

NSF Biological Oceanography: Collaborative Research: Global-Pan Regional Synthesis: End-to-end energy budgets for USGLOBEC regions (with many others). 9/08 – 8/11. \$150,104

NSF Biological Oceanography: Collaborative Research: *Neocalanus* spp. control of lower trophic level structure in the North Pacific Ocean (with M. Dagg). 1/09 – 12/11. \$270,293.

NSF Biological Oceanography: Ocean acidification effects on planktonic food webs: relationships between phytoplankton and microzooplankton (with M.B. Olson). 9/08 to 8/11. \$394,587.

NSF Biological Sciences: Facilities for investigating fine-scale variability in physical, chemical, and biological oceanographic features at the Shannon Point Marine Center (with S. Sulkin, J. Apple). 6/08 – 5/11. \$169,908.

TEACHING EXPERIENCE

Instructor

- 1995 - 2002 Oceanography (ENVR 321, 322), Western Washington University (Minorities in Marine Science Undergraduate Program)
- 2000, 2006 Coastal Oceanography (ENVR 500, ESCI 545), Western Washington University
- 1993, 1998, 1999, 2002, 2004, 2005, 2007 Biological Oceanography (BIO 507, ESCI/BIOL 597, ESCI 521), Western Washington University
- 1993 Current Topics in Plankton Ecology (BIO 445S), Western Washington University (Minorities in Marine Science Undergraduate Program)

Teaching Assistant

- 1986 Man and the Ocean (OCEAN 102), University of Washington
- 1985 Introductory Oceanography (OCEAN 101), University of Washington
- 1982, 1983 Introductory Biology (BIO 7B), Harvard University

Research Advisor

NSF Research Experience for Undergraduates Program, Shannon Point Marine Center. Summers 1993 - 1997, 1999, 2001 – 2003, 2005-07 (13 students total)

Undergraduate research projects, Minorities in Marine Science Undergraduate Program, Shannon Point Marine Center. Winters 1995 – 2008 (15 students total)

Undergraduate research projects, NSF C-RUI SEARUN program, WWU/SPMC. 1997 – 1999 (6 students total)

Visiting student research projects: Lucia Zarauz (PhD candidate, AZTI-Technalia, Spain) summer 2004; Andrés Gutierrez (PhD candidate, Instituto Ciencias del Mar, Spain) summer 2006

Graduate Committee Supervisor

Mary Anne Brainard (M.S. Biology, 1996); William Arthurs (M.S. Biology 1998), Jan Holmes (M.S. Biology 1998), M. Brady Olson (M.S. Environmental Science 2001), Marnie Zirbel (M.S. Environmental Science 2002), Jennifer Clough (M.S. Environmental Science, 2002), Deborah (Kast) Erenstone (M.S. Environmental Science, 2003), Kerri Frederickson (M.S. Biology, 2004); Tristan Wohlford (M.S. Environmental Science, 2006); Brandon Jensen (M.S. Environmental

Science, 2007); Heidi Zimmer (M.S. Environmental Science, 2008); Sylvia Graham (M.S. Environmental Science, in progress); Blair Paul (M.S. Environmental Science, in progress).

Graduate Committee Member

Karen Thompson, Mary Cottone, Steven Heywood, Jason Lehto, Brett Hora, Shawn Hinz, Michael Anderson, Franchesca Perez, Georgianne Smith-Connell, Nicole Moore, Lindsey Milonas, Jason Hall, Richard Gwozdz, Celia Ross, Heather Bergschneider, Rachel Garcia, Annie Cox, Emily Davenport (all at Western Washington University), María Pérez (Universite Pierre et Marie Curie/Paris 6)

Post-doctoral Supervisor

Hans Jakobsen, Jude Apple

PUBLICATIONS

- Dagg, M., S. Strom, and H. Liu. High feeding rates on large particles by *Neocalanus flemingeri* and *N. plumchrus*, and consequences for phytoplankton community structure in the subarctic Pacific Ocean. In prep for submission to *Deep-Sea Research*.
- Strom, S.L. The microbial ecology of ocean biogeochemistry: it takes a village. Submitted, *Science Perspectives*.
- Hunt, G.L. Jr., P.J. Stabeno, S.L. Strom, and J.M. Napp. The Pribilof Domain: Patterns of spatial and temporal variation in the marine ecosystem of the southeastern Bering Sea. Submitted, *Deep-Sea Research II*.
- Strom, S.L. and K.J. Bright. Inter-strain differences in nitrogen use by the coccolithophorid *Emiliana huxleyi*, and consequences for predation by a planktonic ciliate. Accepted for publication, *Harmful Algae*.
- Strom, S.L. and K.A. Fredrickson. Intense stratification leads to phytoplankton nutrient limitation and reduced microzooplankton grazing in the southeastern Bering Sea. Accepted for publication, *Deep-Sea Research II*.
- Strom, S.L., G.V. Wolfe and K.J. Bright. 2007. Responses of marine planktonic protists to amino acids: feeding inhibition and swimming behavior in the ciliate *Favella* sp. Featured Article, *Aquatic Microbial Ecology* 47: 107-121.
- Strom, S.L., E.L. Macri and M.B. Olson. 2007. Microzooplankton grazing in the coastal Gulf of Alaska: variations in top-down control of phytoplankton. *Limnology and Oceanography* 52: 1480-1494.
- Strom, S.L., M.B. Olson, E.L. Macri and C.W. Mordy. 2006. Cross-shelf gradients in phytoplankton community structure, nutrient utilization, and growth rate in the northern coastal Gulf of Alaska. *Marine Ecology Progress Series* 328: 75-92.
- Jakobsen, H.H., L.M. Everett and S.L. Strom. 2006. Hydromechanical signaling between the ciliate *Mesodinium pulex* and motile protist prey. *Aquatic Microbial Ecology* 44: 197-206.
- Liu, H., M.J. Dagg and S. Strom. 2005. Grazing by the calanoid copepod *Neocalanus cristatus* on the microbial foodweb in the coastal Gulf of Alaska. *Journal of Plankton Research* 27: 647-662.
- Clough, J. and S. Strom. 2005. Effects of *Heterosigma akashiwo* (Raphidophyceae) on protist grazers: laboratory experiments with ciliates and heterotrophic dinoflagellates. *Aquatic Microbial Ecology* 39: 121-134.
- Jakobsen, H. and S. Strom. 2004. Circadian cycles in growth and feeding rates of heterotrophic protist plankton. *Limnology and Oceanography* 49: 1915-1922.

- Bingham, B.L., S.D. Sulkin, S.L. Strom and G. Muller-Parker. 2003. Increasing diversity in the marine sciences through the Minorities in Marine Science Undergraduate Program. *Journal of Geoscience Education* 51: 474-480.
- Gentleman, W., Leising, A., Frost, B., Strom, S, Murray, J. 2003. Functional responses for zooplankton feeding on multiple resources: a review of assumptions and biological dynamics. *Deep-Sea Research II* 50: 2847-2875.
- Strom, S. L. , G. V. Wolfe, J. L. Holmes, H. A. Stecher, C. Shimeneck, S. Lambert, and E. Moreno. 2003. Chemical defense in the microplankton I: Feeding and growth rates of heterotrophic protists on the DMS-producing phytoplankter *Emiliana huxleyi*. *Limnology and Oceanography* 48: 217-229.
- Strom, S. L., G. V. Wolfe, A. Slajer, S. Lambert, and J. Clough. 2003. Chemical defense in the microplankton II: Inhibition of protist feeding by β -dimethylsulfoniopropionate (DMSP). *Limnology and Oceanography* 48: 230-237.
- Strom, S. L. 2002. Novel interactions between phytoplankton and microzooplankton: their influence on the coupling between growth and grazing rates in the sea. *Hydrobiologia* 480: 41-54.
- Olson, M. B. and S. L. Strom. 2002. Phytoplankton growth, microzooplankton herbivory and community structure in the southeast Bering Sea: insight into the formation and temporal persistence of an *Emiliana huxleyi* bloom. *Deep-Sea Research II* 49: 5969-5990.
- Wolfe, G. V., S. L. Strom, J. L. Holmes, T. Radzio, and M. B. Olson. 2002. Dimethylsulfoniopropionate cleavage by marine phytoplankton in response to mechanical, chemical, or dark stress. *Journal of Phycology* 38: 948-960.
- Weingartner, T J., K. Coyle, B. Finney, R. Hopcroft, T. Whitley, R. Brodeur, M. Dagg, E. Farley, D. Haidvogel, L. Halderson, A. Hermann, S. Hinckley, J. Napp, P. Stabeno, T. Kline, C. Lee, E. Lessard, T. Royer, S. Strom. 2002. The northeast Pacific GLOBEC program: coastal Gulf of Alaska. *Oceanography* 15(2): 48-63.
- Strom, S. L. 2001. Light-aided digestion, grazing and growth in herbivorous protists. *Aquatic Microbial Ecology* 23: 253-261.
- Strom, S. L., M. A. Brainard, J. L. Holmes, and M. B. Olson. 2001. Phytoplankton blooms are strongly impacted by microzooplankton grazing in coastal Pacific Northwest waters. *Marine Biology* 138: 355-368.
- Hinz, S., S. Sulkin, S. Strom, and J. Testermann. 2001. Discrimination in ingestion of protistan prey by larval crabs. *Marine Ecology Progress Series* 222:155-162.
- Strom, S. L. 2000. Bacterivory: interactions between bacteria and their grazers, p. 351-386. In: D. L. Kirchman (ed.), *Microbial ecology of the oceans*. Wiley-Liss, New York.

- Strom, S. L., C. B. Miller, and B. W. Frost. 2000. What sets lower limits to phytoplankton stocks in high-nitrate, low-chlorophyll regions of the open ocean? *Marine Ecology Progress Series* 193: 19-31.
- Goericke, R., Strom, S., and Bell, M. A. 2000. Distribution and sources of cyclic pheophorbides in the marine environment. *Limnology and Oceanography* 45: 200-211.
- Boyd, P.W., N.D. Sherry, J.A. Berges, J.K.B. Bishop, S.E. Calvert, M.A. Charette, S.J. Giovannoni, R.H. Goldblatt, P.J. Harrison, S.B. Moran, S. Roy, M. Soon, S. Strom, D. Thibault, K.L. Vergin, F.A. Whitney, and C.S. Wong. 1999. Transformations of biogenic particulates from the pelagic to the deep ocean realm. *Deep-Sea Research II* 46: 2761-2792.
- Lehto, J., S. Sulkin, S. Strom, and D. Johnson. 1998. Protists and detrital particles as prey for the first larval stage of the brachyuran crab, *Hemigrapsus oregonensis*. *Journal of Experimental Marine Biology and Ecology* 230: 213-224.
- Sulkin, S., J. Lehto, S. Strom, and D. Hutchinson. 1998. The nutritional role of protists in the diet of first stage larvae of the Dungeness crab *Cancer magister*. *Marine Ecology Progress Series* 169: 237-242.
- Strom, S. L. and H. Loukos. 1998. Selective feeding by protozoa: model and experimental behaviors and their consequences for population stability. *Journal of Plankton Research*. 20:831-846.
- Strom, S. L. and T. A. Morello. 1998. Comparative growth rates and yields of ciliates and heterotrophic dinoflagellates. *Journal of Plankton Research* 20: 571-584.
- Strom, S. L., T. A. Morello, and K. J. Bright. 1998. Protozoan size influences algal pigment degradation during grazing. *Marine Ecology Progress Series* 164: 189-197.
- Strom, S. L., R. Benner, S. Ziegler, and M. J. Dagg. 1997. Planktonic grazers are a potentially important source of marine dissolved organic carbon. *Limnology and Oceanography* 42: 1364-1374.
- Strom, S. L. and M. W. Strom. 1996. Microplankton growth, grazing, and community composition in the northern Gulf of Mexico. *Marine Ecology Progress Series* 130: 229-240.
- Boyd, P. W., S. Strom, F. A. Whitney, S. Doherty, M. E. Wen, P. J. Harrison and C. S. Wong. 1995. The NE subarctic Pacific in winter: 1. Biological standing stocks. *Marine Ecology Progress Series* 128: 11-24.
- Strom, S. L., J. R. Postel, and B. C. Booth. 1993. Abundance, variability, and potential grazing impact of planktonic ciliates in the open subarctic Pacific. *Progress in Oceanography* 32: 185-203.

- Welschmeyer, N. A., S. Strom, R. Goericke, G. DiTullio, M. Belvin, and W. Peterson. 1993. Primary production in the subarctic Pacific Ocean: Project SUPER. *Progress in Oceanography* 32: 101-135.
- Strom, S. L. 1993. Production of pheopigments by marine protozoa: results of laboratory experiments analysed by HPLC. *Deep-Sea Research I* 40: 57-80.
- Strom, S. L. and E. J. Buskey. 1993. Feeding, growth, and behavior of the thecate heterotrophic dinoflagellate *Oblea rotunda*. *Limnology and Oceanography* 38: 965-977.
- Buskey, E. J., C. Coulter, and S. Strom. 1993. Locomotory patterns of microzooplankton: potential effects on food selectivity of larval fish. *Bulletin of Marine Science* 53: 29-43.
- Buskey, E. J., S. Strom, and C. Coulter. 1992. Bioluminescence of heterotrophic dinoflagellates from Texas coastal waters. *Journal of Experimental Marine Biology and Ecology* 159: 37-49.
- Strom, S. L. and N. A. Welschmeyer. 1991. Pigment-specific rates of phytoplankton growth and microzooplankton grazing in the open subarctic Pacific Ocean. *Limnology and Oceanography* 36: 50-63.
- Strom, S. L. 1991. Growth and grazing rates of an herbivorous dinoflagellate (*Gymnodinium* sp.) from the open subarctic Pacific Ocean. *Marine Ecology Progress Series* 78: 103-113.
- Lynn, D. H., D. J. S. Montagnes, T. Dale, G. L. Gilron, and S. L. Strom. 1991. A reassessment of the genus *Strombidinopsis* (Ciliophora, Choreotrichida) with descriptions of four new planktonic species and remarks on its taxonomy and phylogeny. *Journal of the Marine Biological Association of the U. K.* 71: 597-612.
- Welschmeyer, N., R. Goericke, S. Strom, and W. Peterson. 1991. Herbivorous control of phytoplankton crops in the subarctic Pacific: a chemotaxonomic analysis. *Limnology and Oceanography* 36: 1631-1649.
- Murray, J. W., J. N. Downs, S. Strom, C. Wei and H. W. Jannasch. 1989. Nutrient assimilation, export production and ²³⁴Th scavenging in the eastern equatorial Pacific. *Deep-Sea Research* 36: 1471-1489.

PAPERS PRESENTED (as first author at national/international meetings)

Competition and predation: the significance of chemical and behavioral interactions among microbes. Invited presentation, Gordon Research Conference on Marine Microbes, Biddeford, Maine, July 2006.

Insights into the regulation of protistan grazing from field work in the subarctic Pacific and Bering Sea. Ocean Sciences, Honolulu, February 2006.

Interannual differences in lower trophic level processes in the southeastern Bering Sea. Climate Variability and Subarctic Marine Ecosystems Symposium, Victoria BC, May 2005

Amino acids as signal molecules affecting feeding by microzooplankton. American Society of Limnology and Oceanography, Salt Lake City, February 2005.

Regulation of phytoplankton production and scaling over time and space in the coastal Gulf of Alaska. Eastern Pacific Ocean Conference, Sidney BC, Sept. 2004.

Mesoscale variation in phytoplankton community structure, growth rate and resource limitation in the coastal Gulf of Alaska. Ocean Sciences, Portland, January 2004.

Effects on planktonic food webs of organic nitrogen use by phytoplankton. Estuarine Research Federation, Seattle, September 2003.

Plenary talk: Planktonic processes in the coastal Gulf of Alaska: interconnections with weather, ocean conditions and salmon production. Joint Scientific Symposium: Marine Science in the Northeast Pacific, Anchorage, January 2003.

Seasonality in planktonic community structure, phytoplankton growth, and zooplankton grazing in the coastal Gulf of Alaska. Joint Scientific Symposium: Marine Science in the Northeast Pacific, Anchorage, January 2003.

Trophic cascades within coastal Gulf of Alaska plankton communities revealed using imaging-in-flow (FlowCAM) analysis. Ocean Sciences, Honolulu, February 2002.

Phytoplankton DMSP release: a possible chemical defense against protist grazers? American Society of Limnology and Oceanography, Albuquerque, February 2001.

Phytoplankton blooms are strongly impacted by microzooplankton grazing in productive coastal waters. Ocean Sciences, San Antonio, January 2000.

Are protozoan grazers deterred by phytoplankton-produced chemicals? American Society of Limnology and Oceanography, Santa Fe, February 1999.

Photovoltaic protozoa: evidence for direct use of light energy by heterotrophic protists. Ocean Sciences, San Diego, February 1998.

Algal pigments indicate varying degrees of organic matter degradation during protozoan herbivory. American Society of Limnology and Oceanography, Santa Fe, February 1997.

Production of dissolved organic carbon by phyto- and zooplankton. Ocean Sciences, San Diego, February 1996.

Microzooplankton grazing and phytoplankton growth in the northern Gulf of Mexico. Ocean Sciences, San Diego, February 1994.

Phaeopigments: biomarkers for grazing by planktonic protozoa? American Society of Limnology and Oceanography, Edmonton, June 1993.

The role of microzooplankton in the open subarctic Pacific Ocean. The Oceanography Society, Seattle, April 1993.

Growth and grazing dynamics of a thecate heterotrophic dinoflagellate *Oblea rotunda*. American Society of Limnology and Oceanography, Santa Fe, February 1992.

Growth, grazing and behavior of the thecate heterotrophic dinoflagellate *Oblea rotunda*. Zooplankton Ecology Symposium, Appleton, August 1991.

Laboratory-measured growth and grazing rates of two species of herbivorous protozoa isolated from St. P in the subarctic Pacific. Ocean Sciences, New Orleans, January 1990.

Grazing by microzooplankton on different phytoplankton taxa in the subarctic Pacific. American Geophysical Union, San Francisco, November 1988.

Effect of light intensity on growth and grazing rates of microzooplankton of the subarctic Pacific. NATO ASI: Protozoa and their role in marine processes, Plymouth, UK, July 1988.

Production of pigment degradation products by ciliate protozoa. Ocean Sciences, New Orleans, January 1988.