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Education

Degree Programs

- 1980 - 1983: **The College of William and Mary/Virginia Institute of Marine Science**,
Williamsburg, Virginia
Graduate study in Marine Science. 36 semester hours.
- 1973 - 1977: **Virginia Polytechnic Institute and State University**, Blacksburg, Virginia
Bachelor of Science, Biology.

Recent Coursework

- March 2000 **Woods Hole Oceanographic Institution**
In-house training - Adobe Illustrator
- Sept 1998 **Woods Hole Oceanographic Institution**
In-house training - Matlab Language Workshop
- March 1997 **Falmouth Night School**
Intermediate Web Publishing - 4 week course
- Feb-May 1996 **Falmouth Night School**
Introduction to HTML and World Wide Web Publishing - 8 week course
- July 1996 **Woods Hole Oceanographic Institution**
In-house training: mini-course in HTML for Web publishing
- Feb.-March 1994: **Woods Hole Oceanographic Institution**
In-house training: Introduction to Matlab (Module I)
MatLab—Data Processing (Module II)
- Sept. 1993: **Bigelow Lab for Ocean Sciences**
Short course: "Flow and Imaging Cytometry for the Aquatic Sciences"
- April, May 1992: **Boston College**
Seminar series: "Remote Sensing Data" one day seminar.
"Remote Sensing Interpretation" one day seminar.
- July 1992: **Woods Hole Oceanographic Institution**
In-house training: "Introduction to Geographic Information Systems (GIS) for
the Geoscientist." one day seminar.
- Sept.-Dec. 1988: **Southeastern Massachusetts University**
Undergraduate course: "Molecular Biology" Audit.
- Jan.-May 1988: **Southeastern Massachusetts University**
Graduate course: "Marine Biotechnology" 4 credit hours.
- June 9-20, 1986: **Bridgewater State University**
Mini-course: "Microcomputers in the Sciences"

Professional Experience

Woods Hole Oceanographic Institution

- Woods Hole, Massachusetts
- 1998 - present: Research Associate III
- 1992 -1998: Research Associate
- 1985 - 1992: Research Assistant III
- 1984 - 1985: Research Assistant II

Virginia Institute of Marine Science

- Gloucester Point, Virginia
- 1982 - 1983: Graduate Research Assistant
- 1977 - 1982: Laboratory Technician

Skills and Responsibilities

Field Skills

- Served as chief scientist aboard numerous coastal cruises. Responsible for sampling design and modifications based on near real time remote sensing, shellfish toxicity outbreaks, weather, etc.
- Responsible for the organization and implementation of field endeavors, including the collection of data and samples for the analysis of: phytoplankton communities and associated benthic cyst populations, algal and microbial production, *in situ* and *in vivo* chlorophyll a, nutrients, light attenuation, and other associated hydrodata. Skills include: use of instrumentation and equipment such as Conductivity-Temperature-Depth sensors, various grab and coring devices, fluorometers, transmissometers, light meters, Niskin bottle/Rosette samplers, etc.

Lab Skills

- Experienced with immunological techniques for the production and testing of monoclonal and polyclonal antibodies against marine phytoplankton such as immunization protocols, immunofluorescent staining, ELISA methodologies, and immunomagnetic bead technology.
- Familiar with several molecular biological techniques such as DNA/RNA hybridization probes, mini-gel electrophoresis, Western and Southern blotting, etc.
- Familiar with the use of Flow Cytometry for the quantitative analysis of species-specific fluorescent probes.
- Identification and enumeration of phytoplankton especially toxic dinoflagellates and their benthic resting cysts. Experienced with various light and epi-fluorescence microscopes.
- Isolation and culture of algae and cysts from field samples. Familiar with media preparation and sterile techniques for the establishment and transfer of cultures.
- Biochemical analysis of plankton, especially total proteins, lipids, carbohydrates, pigments, and saxitoxins, using wet chemistry/colorimetric and chromatographic techniques. Experienced with spectrophotometry, fluorometry, centrifugation, gravimetric analysis. Utilization of several types of chromatography, including HPLC, gel filtration, thin-layer, etc.
- Use of radioactive tracer methodology using ^{14}C and ^3H in algal and microbial production and growth. Experienced with handling radioisotopes and the use of liquid scintillation counters.
- Analysis of nutrients, in particular, dissolved and particulate silicates and dissolved phosphates using standard methods. Also familiar with methods for analysis of nitrates, nitrites, and ammonia. Experienced with the use of various spectrophotometers and wet chemistry techniques.

Computer Skills

- Use of both PC and Macintosh microcomputers for wordprocessing, spreadsheets, and the graphical analysis of data.
- Familiar with HTML for publishing information on the World Wide Web;
- Use of various computer systems and software for contouring the distribution of phytoplankton, benthic cysts, temperature, salinity, and other hydrodata.
- Familiar with interfacing laboratory and field instruments to microcomputers for data acquisition/data reduction (e.g. fluorometers, microscope photometer system).
- Experienced with Seabird software for the acquisition and processing of CTD data.
- Experienced with the use of a PC remote sensing workstation for the acquisition of near real time satellite images of sea surface temperature through NOAA's Coastwatch satellite program.

Experience at Sea

May, June 2002.* *R/V Gulf Challenger* (50ft.) Four 2day cruises in Mass Bay. Post-outfall studies.
May 5-15, 2001.* *R/V Cape Hatteras* (135ft.) 10 day ECOHAB cruise in the Gulf of Maine.
June 5-14, 2001.* *R/V Oceanus* (177ft.) 9 day ECOHAB cruise and dye study in the Gulf of Maine
April-June, 2000.* *R/V Gulf Challenger* (50ft.) Eight 2-3 day ECOHAB surveys in the Western Gulf of Maine.
May-June, 1999.* *R/V Gulf Challenger* (50ft.) Three 2day cruises in Mass Bay. Pre-outfall studies.
April-June, 1998.* *R/V Gulf Challenger* (50 ft.) Eleven 2-3 day cruises. ECOHAB red tide hydrographic survey in Casco Bay
Feb 1998.* *R/V Gulf Challenger* (50 ft.) 1 day cruise. ECOHAB cyst germination experiments in Casco Bay
Nov. 1997.* *R/V Endeavor* (175 ft.) 10-day cruise. ECOHAB red tide cyst collection in the Gulf of Maine and Bay of Fundy.
Sept. 1997.* *R/V Gulf Challenger* (50 ft.) 4 day cruise. ECOHAB red tide cyst collection in Casco Bay
May-June, 1997.* *R/V Gulf Challenger* (50ft) Three 2 day cruises. Red Tide surveys in Mass Bay.
May-June, 1996.* *R/V Gulf Challenger* (50ft.) Four 2 day cruises. Toxin transfer through the food chain in Mass Bay.
May-June, 1995.* *R/V Lucky Lady* (50ft.) Five 1-2 day cruises. Toxin transfer through the food chain in Mass Bay.
May, 1994.* *R/V Peter W. Anderson* (175ft.) Transport Dynamics of "Red Tides" in the Gulf of Maine.
June, 1994: *R/V Argo Maine* (80ft.) Transport Dynamics of "Red Tides" in the Gulf of Maine.
May-June, 1994.* *R/V Gulf Challenger* (50ft.) 6 1-2 day cruises. Transport Dynamics of "Red Tides in the Gulf of Maine.
Apr-Jun, 1993.* *R/V Argo Maine* (80 ft.) Five 3-day cruises. Transport Dynamics of "Red Tides" in the Gulf Of Maine.
1989-1992.* *Unity* (31 ft. Sportfisherman) Eight 1-2 day cruises. "Red Tide" Hydrographic surveys in the Gulf of Maine.
Jun. 12-17, 1991.* *R/V Argo Maine* (80 ft.) "Red Tide" Hydrographic survey of Georges Bank and SW Gulf of Maine.
Apr., May 1990.* *R/V Argo Maine* (80 ft.) Two 2 day cruises. "Red Tide" Hydrographic surveys in the Gulf of Maine.
1987-1993: *R/V Jere A. Chase* (45-ft. trawler) Fifty 1-2 day cruises. Plankton and cyst dynamics in the Gulf of Maine.
Aug. 5-10, 1987: *R/V Endeavor* (175 ft.) "Red Tide" plankton dynamics in the Gulf of Maine.
Sep. 3, 1986:* *R/V Asterias* (45-ft. trawler) "Brown Tide" distribution in Buzzards Bay, MA, and Rhode Island Sound.
Nov. 1983 & '84:* *R/V Asterias* (45-ft. trawler) Two 4-day cruises. "Red Tide" cyst distributions in the Gulf of Maine.
Apr. 3-6, 1982: *R/V Langley-NASA* (60-ft. trawler) York River/Chesapeake Bay phytoplankton dynamics study.
1980-1982: *R/V Captain John Smith* (45-ft. trawler) Three 2-3 day cruises. Chesapeake Bay plankton study.
1979-1981:** *R/V Acartia* (25-ft. cabin cruiser) Fifteen 2-3 day cruises. Effects of a power plant thermal effluent on Chesapeake Bay plankton communities.
1977-1980: *R/V Pathfinder* (60-ft. trawler) Seven 2-3 day cruises. Chesapeake Bay plankton study.
Nov. 8-16, 1978: *R/V Annadale* (90-ft. trawler) Effects of oil spills and dispersants on algal and microbial productivity in the Atlantic.
Sep. 16-23, 1978: *R/V Virginian Sea* (144 ft.) Chesapeake Bay and Atlantic Ocean algal productivity study.
Mar. 18-25, 1978: *R/V Retriever* (100-ft. platform ship) Lower Chesapeake Bay and James River pesticide study.

*Denotes Chief Scientist on many of the cruises

Publications

- In prep: Anderson, D.M., B.A. Keafer, W.R. Geyer, D. A. Fong, and R.P. Signell. **"Toxic *Alexandrium* blooms in the southwestern Gulf of Maine: the plume advection hypothesis revisited."**
- In prep: Keafer, B.A., G.Langlois, R. Mendelsohn, F. Schwing, and D.M. Anderson. **"Paralytic shellfish poisoning and upwelling relaxation along the central California coast"**.
- submitted:McGillicuddy, D.J., Signell, R.P., Stock, C.A., Keafer, B.A., Keller, M.D., Hetland, R.D. and D.M. Anderson. A mechanism for offshore initiation of harmful algal blooms in the coastal Gulf of Maine. *Journal of Plankton Research*
- submitted:Geyer, W.A., R.P. Signell, D.A. Fong, J. Wang, D.M. Anderson, and B.A. Keafer. **"The Kennebec River Plume and the Coastal Current of the Western Gulf of Maine."** *Cont. Shelf Res.*
- In press: Franks, P.J.S. and B. A. Keafer. **Sampling Techniques and Strategies for Coastal Phytoplankton Blooms.** In: *IOC Manual on Harmful Marine Microalgae.* G.M. Hallegraeff, D.M. Anderson and A.D. Cembella (eds.)
- 2002: Angeles Aguilera, Bruce A. Keafer , G. H. Rau and Donald M. Anderson. **Immunomagnetic isolation of live and preserved *Alexandrium fundyense* cells: Application to monospecific physiological, chemical, and isotopic analyses"** *Mar. Ecol. Prog. Ser.* 237: 65-78.
- 2000: Turner, J., G. Doucette, C.L. Powell, D.M. Kulis, B.A. Keafer, and D.M. Anderson. **Accumulation of red tide toxins in larger size fractions of zooplankton assemblages from Massachusetts Bay, USA** *Mar Ecol Prog Ser* 203:95-107.
- 2000: Anderson, D.M., Keafer, B.A. and Turner, J. Red Tide Surveys of Massachusetts Bay, 1999. Massachusetts Water Resources Authority report EnQuad 2000-17.
- 1999: Bruce Keafer, Jim Churchill and Donald Anderson, **Initiation of *Alexandrium* Blooms near Casco Bay, Maine** *Gulf of Maine News* Summer 1999 pp. 8-11.
- 1999: Maureen Keller, Donald Anderson, and Bruce Keafer. ***Alexandrium* Cyst Distributions and abundances in the Gulf of Maine** *Gulf of Maine News* Summer 1999 pp. 4-5.
- 1999: Anderson, D.M., D.M. Kulis, Keafer, B.A. and E. Berdalet. **"Detection of the Toxic Dinoflagellate *Alexandrium fundyense* with rRNA and Antibody Probes: Variability in Labeling Intensity with Physiological Condition."** *J. Phycol.* 35, 870-883.
- 1998: Gonzales-Gil S., A. Aguilera, B. A. Keafer, and D.M. Anderson. **"Detection and quantification of alkaline phosphatase in single cells of phosphorous-starved marine phytoplankton."** *Mar Ecol Prog Ser* Vol. 164: 21-35.
- 1998: Aguilera, A.S., S. Gonzalez-Gil, B.A. Keafer, and D. M. Anderson. **"Isolation of the Toxic Marine Dinoflagellate *Alexandrium fundyense* from unpreserved cultures by Magnetic Affinity Cell Sorting."** In: Reguera, B., J. Blanco and T. Wyatt [Eds.], "Harmful Algae". Proceedings of the Eighth International Conference on Harmful Algal Blooms. Vigo, Spain. UNESCO pp. 258-259.
- 1998: Gonzalez-Gil, S., B. A. Keafer, A. Aguilera and D.M. Anderson. **"Detection of Endogenous Alkaline Phosphatase in Marine Dinoflagellates by Epi-fluorescent Microscopy."** Proceedings of the Eighth International Conference on Harmful Algal Blooms. Vigo, Spain. UNESCO pp. 374-375.
- 1996: Aguilera, A., S. Gonzales-Gil, B. A. Keafer, and D.M. Anderson. **"Immunomagnetic separation of the toxic dinoflagellate, *Alexandrium fundyense*, from natural plankton samples."** *Marine Ecology Progress Series*, Vol. 143:255-269
- 1993: Bates,S.S., C. Leger, B.A. Keafer, and D.M. Anderson. **"Discrimination between domoic-acid-producing and non-toxic forms of the diatom *Nitzschia pungens* using immunofluorescence."** *Marine Ecology Progress Series*, Vol. 100 pp.185-195.
- 1993: Anderson, D.M., B.A. Keafer, D.M. Kulis, R.M. Waters, and R. Nuzzi. **"An immunofluorescent survey of the brown tide chrysophyte *Aureococcus anophagefferens* along the northeast coast of the United States."** *J.Plankton Research*, Vol. 15 no.5 pp.563-580.
- 1993: Keafer, B.A. and D.M. Anderson. **"The Use of Remotely-sensed Sea Surface Temperatures in Studies of *Alexandrium tamarens* Bloom Dynamics."** In: T.J. Smayda and Y. Shimizu [Eds.], *Toxic Phytoplankton Blooms in the Sea.* Proceedings of the Fifth International Conference on Toxic Marine Phytoplankton. Elsevier, Amsterdam. pp.763-768.
- 1992: Anderson, D.M. and B.A. Keafer. **"Paralytic Shellfish Poisoning on Georges Bank and Nantucket Shoals: *in situ* Growth or Advection of Established Dinoflagellate Populations?"** In: J. Wiggen and C.N.K. Mooers [Eds.],*Proceedings of the Gulf of Maine Scientific Workshop.* Woods Hole, MA. Jan. 8-10, 1991. Urban Harbors Institute, University of Massachusetts, Boston, MA.
- 1992: Keafer, B.A., K.O. Buesseler, and D.M. Anderson. **"Burial of Living Dinoflagellate Cysts in Estuarine and Nearshore Sediments."** *Marine Micropaleontology*, 20:147-161.
- 1988: Franks, P.J.S., D.M. Anderson and B.A. Keafer. **"Fronts, Upwelling and Coastal Circulation: Spatial Heterogeneity of *Ceratium* in the Gulf of Maine."** In: T. Okaichi, D.M. Anderson, and T. Nemoto [Eds.], *Red Tides: Biology, Environmental Science, and Toxicology.* Proc. 1st International Symposium on Red Tides. Elsevier Science, NY. pp. 153-156.

- 1987: Anderson, D.M. and B.A. Keafer. "**An Endogenous Annual Clock in the Toxic Marine Dinoflagellate *Gonyaulax tamarensis***." Nature, Vol. 325 No. 6105 pp. 616-617.
- 1985: Anderson, D.M. and B.A. Keafer. "**Dinoflagellate Cyst Dynamics in Coastal and Estuarine Waters**." In: D.M. Anderson, A.W. White, and D.G. Baden [Eds.], Toxic Dinoflagellates, Proc. 3rd International Conference, Elsevier, NY. pp. 219-224.
- 1984: Anderson, D.M. and B.A. Keafer. "**The Distribution, Abundance, and Fate of Nearshore Dinoflagellate Cyst Accumulations**." International Council for the Exploration of the Sea. Special Meeting on the Causes, Dynamics and Effects of Exceptional Marine Blooms and Related Events, C.M. 1984/C:6 Biological Oceanography Committee. Ref. MEQC, Copenhagen, Denmark.

Papers Presented

- 2002: Keafer, B.A. and other ECOHAB investigators. "Influence of eastern Maine *Alexandrium fundyense* populations on the nearshore waters of the western GOM: implications for shellfish toxicity along the western Maine, New Hampshire and Massachusetts coastlines". Invited talk for the New England Marine Biotoxins Workshop, Boothbay Harbor Maine, Sept 2002
- 2001: Keafer, B.A. "**A. fundyense dynamics in the Gulf of Maine**" Invited lecture for graduate seminar course at the University of Massachusetts at Dartmouth. March, 2001
- 2001: Keafer, B.A. "**Current Research and Monitoring of Harmful Algal Blooms in the Gulf of Maine**" Invited lecture for Massachusetts Maritime Academy course on Environmental Protection and Monitoring. April, 2001
- 2000: Donald Anderson, Bruce Keafer, James Churchill, Rocky Geyer and Rich Signell. "**Alexandrium fundyense blooms in the Western Gulf of Maine**". Symposium on Harmful Algae in the United States. Marine Biological Laboratory, Wood Hole, MA December 4-9, 2000.
- 2000: Donald Anderson, Bruce Keafer, Patricia Matrai and Maureen Keller, "**Alexandrium Cyst Dynamics in the Gulf of Maine**". Symposium on Harmful Algae in the United States. Marine Biological Laboratory, Wood Hole, MA December 4-9, 2000.
- 2000: Jefferson Turner, Christine Powell, David M. Kulis, Bruce A. Keafer, Donald Anderson and Greg Doucette, "**Accumulation of PSP Toxins in Zooplankton Assemblages in the Gulf of Maine** Symposium on Harmful Algae in the United States. Marine Biological Laboratory, Wood Hole, MA December 4-9, 2000.
- 2000: Keafer, B.A. - "**Alexandrium bloom dynamics in the Gulf of Maine**". University of Massachusetts at Dartmouth - Invited guest lecture Graduate school seminar course on Topics in Biological Oceanography. October 20, 2000.
- 1999: Keafer, B.A. "**Current Research and Monitoring of Harmful Algal Blooms in the Gulf of Maine**" Invited lecture for Massachusetts Maritime Academy course on Environmental Protection and Monitoring. Dec, 1999
- 1999: Bruce A. Keafer. "**Distribution and Identification of *Alexandrium* sp. in the Gulf of Maine**". Maine Phytoplankton Monitoring Workshop invited speaker. USFDA/Maine Department of Marine Resources Boothbay Harbor and Ellsworth, ME October, 1999.
- 1999: Donald M. Anderson and Bruce A. Keafer. "**Alexandrium transport into Massachusetts Bay**". Poster Presentation -Outfall Monitoring Science Advisory Panel (OMSAP) Public meeting, September 22, 23 1999.
- 1999: Keafer, B.A., J. Churchill, W.R. Geyer, and D.M. Anderson. "**ECOHAB-GOM: Initiation and Dynamics of Alexandrium in a Source Region near Casco Bay, Maine**" Poster presentation - Rhinehart Coastal Research Center Open House. June, 1999
- 1999: Keafer, B.A. "**Monitoring Harmful Algal Blooms in Massachusetts Bay**" Invited lecture for Massachusetts Maritime Academy course on Environmental Protection and Monitoring. May, 1999
- 1999: Bruce A. Keafer "**Identification of *Alexandrium* sp. in Massachusetts coastal waters**" Massachusetts Phytoplankton Monitoring Workshop invited speaker. FDA/MA Division of Marine Fisheries Massachusetts Maritime Academy, Buzzards Bay, MA April, 1999.
- 1998: Keafer, B.A. "**Harmful Algal Blooms in the Gulf of Maine**." Invited lecture for Massachusetts Maritime Academy course on Environmental Protection and Monitoring. Mar, 1998
- 1998: Keafer, B.A., J.Churchill and D.M. Anderson. "**Preliminary results from the ECOHAB-GOM 1998 field project: Western Maine studies**" - invited speaker. State of Maine/Massachusetts sponsored workshop on "Marine Biotoxins". West Boothbay Harbor, Maine. October 21, 22, 1998.
- 1997: Aguilera, A., S. Gonzalez-Gil, B.A. Keafer, and D.M. Anderson. "**Isolation of the Toxic Marine Dinoflagellate *Alexandrium fundyense* from Unpreserved Cultures by Magnetic Affinity Cell Sorting**." Oral Presentation at the Eighth International Conference on Harmful Algal Blooms. Vigo, Spain.
- 1997: Gonzalez-Gil, S., B.A. Keafer, A. Aguilera and D.M. Anderson. "**Detection of Endogenous Alkaline Phosphatase in Marine Dinoflagellates by Epi-fluorescent Microscopy**." Poster Session at the Eighth International Conference on Harmful Algal Blooms. Vigo, Spain.

- 1997: Anderson, D.M., D.M. Kulis, B.A. Keafer, and E. Berdelet. **"Detection of the Toxic Dinoflagellate *Alexandrium fundyense* with rRNA and Antibody Probes: Variability in Labeling Intensity with Physiological Condition."** AGU/ASLO Ocean Sciences Meeting. Special Session on the Ecology and Oceanography of Harmful Algal Blooms. Santa Fe, New Mexico.
- 1997: Poulton, N., B.A. Keafer, and D.M. Anderson. **"Detection, Separation, and Enumeration of the Harmful Algal, *Alexandrium sp.*"** AGU/ASLO Ocean Sciences Meeting. Special Session on the Ecology and Oceanography of Harmful Algal Blooms. Santa Fe, New Mexico.
- 1996: Anderson, D. M., B.A. Keafer, W.R. Geyer, and R.P. Signell. **"*Alexandrium sp.* Bloom Dynamics in the Gulf of Maine: Alongshore Transport in a Buoyant Coastal Current."** 1996 AGU/ASLO Ocean Sciences Meeting. Special Session on the Ecology and Oceanography of Harmful Algal Blooms.
- 1995: Keafer, B.A. **"Toxic *Alexandrium* blooms in the southwestern Gulf of Maine."** Presented to the New England Shellfish Sanitation Association. Hyannis, MA. May, 1995.
- 1994: Keafer, B.A. and D.M. Anderson. **"Application of remote sensing for tracking water masses containing *Alexandrium* and its relationship to Paralytic Shellfish Poisoning in the Gulf of Maine."** Marine Biotoxin Workshop. West Boothbay Harbor, Maine. October 18-19, 1994.
- 1994: Keafer, B.A. **"Transport of Toxic Algal Blooms into Massachusetts Bay and Potential Food Web Interactions."** Center for Coastal Studies special seminar. October, 1994.
- 1993: Bates, S.S., C. Leger, B.A. Keafer, and D.M. Anderson. **"An immunofluorescence assay to discriminate between domoic acid producing and non-toxic forms of the diatom *Pseudonitzschia pungens*."** Poster session. Sixth International Conference on Toxic Phytoplankton. Nantes, France. October 18-22, 1993.
- 1993: Keafer, B.A. **"Red Tides through a satellite's eyes: Insights into Patterns of Paralytic Shellfish Poisoning in the Gulf of Maine Utilizing Sea Surface Temperature Imagery from NOAA's Coastwatch program."** WHOI Biology Department Seminar.
- 1993: Keafer, B.A. and D.M. Anderson. **"Utilization of NOAA's Coastwatch SST imagery for understanding "Red Tide" Bloom Dynamics and Patterns of PSP in the Gulf of Maine."** Workshop on Satellite imagery and modeling of "Red Tides". NOAA/NMFS SW Fisheries Center. LaJolla, CA. August 17-19, 1993.
- 1992: Keafer, B.A. and D.M. Anderson. **"Remote Sensing of *Alexandrium tamarensense* in the Gulf of Maine."** Poster session. First Thematic Conference on Remote Sensing for Marine and Coastal Environments. June 15-17, 1992. New Orleans, La.
- 1992: Bates, S.S., Anderson, D.M., Keafer, B.A., and C. Leger. **"Development of an Immunofluorescence Method to Detect the Diatoms *Nitzschia pungens f. multi-series* and *Nitzschia pungens f. pungens*."** Poster session. Workshop on Harmful Marine Algae. May 12-14, 1992. Maurice-LaMontagne Institute. Mont-Joli, Quebec, Canada.
- 1991: Anderson, D.M. and B.A. Keafer. **"Bloom Dynamics of *Alexandrium tamarensense* in the southwestern Gulf of Maine."** Poster Session. Fifth International Conference on Toxic Marine Phytoplankton. October 27-Nov. 1, 1991. Newport, R.I.
- 1991: Keafer, B.A. and D.M. Anderson. **"The Use of Remotely-sensed Sea Surface Temperatures in Studies of *Alexandrium tamarensense* Bloom Dynamics."** Poster Session. Fifth International Conference on Toxic Marine Phytoplankton. October 27-Nov. 1, 1991. Newport, R.I.
- 1991: Anderson, D.M. and B.A. Keafer. **"Paralytic Shellfish Poisoning on Georges Bank and Nantucket Shoals: *in situ* Growth or Advection of Established Dinoflagellate Populations?"** Poster Session. Gulf of Maine Scientific Workshop. Woods Hole, MA. Jan. 8-10, 1991.
- 1990: Keafer, B.A. and D.M. Anderson. **"Toxic Algae in Massachusetts Bay: *in situ* Growth or Advection?"** Special Symposium on Estuarine Eutrophication/Annual Fall Meeting of the New England Estuarine Research Society. Newport, RI. October 25-27, 1990.
- 1989: Anderson, D.M., Keafer, B.A., and K.O. Buesseler. **"Burial of Living Dinoflagellate Cysts in Estuarine and Nearshore Sediments."** Fourth International Conference on Modern and Fossil Dinoflagellates [Dino 4]. Marine Biological Laboratory, Woods Hole, MA. April 17-22, 1989.
- 1982: Keafer, B. A. and P.L. Zubkoff. **"The Distribution and Succession of Phytoplankton in the Lower York River, Virginia [Chesapeake Bay Subestuary]."** 45th Annual Meeting of the American Society of Limnology and Oceanography. Raleigh, North Carolina.