

**DONALD M. ANDERSON**

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Senior Scientist

Woods Hole Oceanographic Institution

Woods Hole, Massachusetts 02543

B.S. Mechanical Engineering, Massachusetts Institute of Technology, 1970

M.S. Civil Engineering, Massachusetts Institute of Technology, 1976

Ph.D. Aquatic Sciences, Department of Civil Engineering, Massachusetts Institute of Technology, 1977

Director, Cooperative Institute for the North Atlantic Region, 2009-present

Director, Coastal Ocean Institute, Woods Hole Oceanographic Institution, 2004-2008

Director, U.S. National Office for Harmful Algal Blooms (1995-present)

Senior Scientist, Woods Hole Oceanographic Institution, 1991-present

Associate Scientist, Woods Hole Oceanographic Institution, 1983-1991; tenure 1987

Assistant Scientist, Woods Hole Oceanographic Institution, 1979-1983

Postdoctoral Investigator, Woods Hole Oceanographic Institution, 1978-1979

Instructor, Massachusetts Institute of Technology Department of Civil Engineering, 1978

**PROFESSIONAL SOCIETIES:**

American Society of Limnology and Oceanography

Phycological Society of America

International Society for the Study of Harmful Algae (Member, ISSHA Council)

The Oceanography Society

**NATIONAL AND INTERNATIONAL COMMITTEES, WORKSHOPS, AND  
DISTINCTIONS (SELECTED):**

Recipient, Stanley W. Watson Chair for Excellence in Oceanography, 1993

Recipient, NOAA Environmental Hero Award (1999)

Recipient, Yasumoto Lifetime Achievement Award, ISSHA (2006)

Recipient, Dr. David L. Belding Award, Massachusetts Marine Fisheries Advisory  
Commission (2005)

Bruun Memorial Medal, Bruun Memorial Lecture. IOC Assembly, Paris, France, 2005

Member, National Research Council Committee on the Causes and Management of  
Coastal Eutrophication (1998-1999)Director, NATO Advanced Study Institute on the Physiological Ecology of Harmful  
Algal Blooms, Bermuda (1996)

Chairman, SCOR Working Group on Harmful Algal Blooms (1992-1996)

U.S. Representative, Working Group on the Dynamics of Harmful Algal Blooms,  
International Council for Exploration of the Seas (ICES) (1986-present)

Member, PICES Working Group #15, Ecology of Harmful Algal Blooms (1999-present).

Scientific Advisor, U.S. Delegation to the IOC/FAO Intergovernmental Panel on Harmful  
Algal Blooms (1992-present)Chairman, Ad Hoc Group of Experts on Harmful Algal Blooms, Intergovernmental  
Oceanographic Commission (1989)

Fellow, Cooperative Institute for Climate and Ocean Research (CICOR), a Joint Institute of the Woods Hole Oceanographic Institution and the National Oceanic and Atmospheric Administration (1999-2002)

Member, Scientific Steering Committee, GEOHAB (The Global Ecology and Oceanography of Harmful Algal Blooms) (1998-2003)

International Organizing Committee, Toxic Marine Phytoplankton Conferences (1989-present)

Testimony before the Subcommittee on Oceans and Fisheries of the Committee on Commerce, Science, and Transportation, United States Senate 105<sup>th</sup> Congress, Second Session, May 20, 1998.

Testimony for US Commission on Ocean Policy, 2002; prepared White Paper on Harmful Algal Blooms for inclusion in the Commission's report "Oceans and Human Health".

Testimony before the Committee on Science, Subcommittee on Environment, Technology and Standards, U.S. House of Representatives Hearing on the "Harmful Algal Bloom and Hypoxia Research Amendments Act of 2003", March 13, 2003.

Testimony before the Subcommittee on Fisheries Conservation, Wildlife and Oceans, U.S. House of Representatives Hearing on H.R. 1856, the Harmful Algal Bloom and Hypoxia Research Amendments Act of 2003, February 26, 2004.

Testimony, Subcommittee on Energy and Environment Hearing, "Harmful Algal Blooms: The Challenges on the Nation's Coastline", Washington, DC, July 10, 2008

Testimony, Subcommittee on Energy and Environment Hearing, "Harmful Algal Blooms and Hypoxia: Formulating an Action Plan", Washington, DC, September 17, 2009.

Testimony, Ocean Policy Task Force Public Meeting, Providence, RI, September 24, 2009.

Briefing before the House Science Committee, "Coastal Nutrient Pollution and Harmful Algal Blooms", September 24, 2003.

Briefing before New England congressional staffers, "The 2005 New England red tide", June 14, 2005.

Congressional briefings, "Harmful Algal Blooms (Red Tides) and Ocean Health", House of Representatives, and U.S. Senate, June 23, 2005.

Briefing for Senate Subcommittee on Oceans Atmosphere, Fisheries and Coast Guard, October 2007

U.S. Representative, WESTPAC Task Team on Red Tides, Intergovernmental Oceanographic Commission (1985 – 1989).

Editorial Board member, Journal of Phycology (1986-1989)

Associate Editor, Journal of Phycology (1993-1996)

Editorial Board: Protist (1999-2004)

Editorial Board: Harmful Algae (2001-present)

Editorial Board: Marine Biotechnology and Molecular Biology (1990-1995)

#### **PATENTS:**

Genetic markers and methods of identifying *Alexandrium* (*Dinophyceae*) species. U.S. Patent No. 5,582,983. 12/10/96

### **COURSES TAKEN:**

- “Energetics and Transport in Aquatic Plants,” J. Raven. Marine Biological Laboratory (1982).
- “Workshop on Temperate Dinoflagellates,” F.J.R. Taylor. Friday Harbor Laboratories (1983).
- “Quantitative Light Microscopy in Biology, Medicine, and Materials Science,” S. Inoue. Marine Biological Laboratory (1986).
- “Molecular Biology and Biotechnology,” New England Biolabs Foundation; Smith College (1987).
- Sabbatical - Department of Cellular and Molecular Biology, Laboratoire Arago, University of Paris 6, Banyuls-sur-mer, France (1989-90).
- “Individual Cell and Particle Analysis in Oceanography,” NATO Advanced Study Institute, (October 1990).
- “Exon-Intron Molecular Biology” course at Marine Biological Laboratory.
- “The Physiological Ecology of Harmful Algal Blooms”, NATO Advanced Study Institute (Director) (May 1996).

### **PUBLICATIONS AND JOURNALS:**

- 1976 Morel, F. M. M. and D. M. Anderson. On the subject of red tide predictions from temperature patterns. *Limnology and Oceanography* 21(4): 625- 627.
- 1978 Anderson, D. M. and F. M. M. Morel. Copper sensitivity of *Gonyaulax tamarensis*. *Limnology and Oceanography* 23: 282-295.
- 1978 Anderson, D. M. and D. Wall. Potential importance of benthic cysts of *Gonyaulax tamarensis* and *G. excavata* in initiating toxic dinoflagellate blooms. *Journal of Phycology* 14: 224-234.
- 1979 Anderson, D. M. and F. M. M. Morel. Toxic dinoflagellate blooms in the Cape Cod region of Massachusetts. In: D. Taylor and H. H. Seliger, (Eds.), *Toxic Dinoflagellate Blooms, Proc. 2nd Int'l Conf.*, Elsevier-North Holland. pp. 145-150.
- 1979 Anderson, D. M. and F. M. M. Morel. The seeding of two red tide blooms by the germination of benthic *Gonyaulax tamarensis* hypnocyts. *Estuarine and Coastal Marine Science* 8: 279-293.
- 1979 Morel, F. M. M., J. G. Rueter, Jr., D. M. Anderson, and R. R. L. Guillard. Aquil: A chemically defined phytoplankton culture medium for trace metal studies. *Journal of Phycology* 15: 135-141.
- 1979 Morel, F. M. M., N. M. L. Morel, D. M. Anderson, D. M. McKnight and J. G. Rueter, Jr. Trace metal speciation and toxicity in phytoplankton cultures. In: F. S. Jacoff, (Ed.). *Advances in Marine Environmental Research*. EPA 600/9-79-035. pp 38-61.

- 1980 Anderson, D. M. The effects of temperature conditioning on the development and germination of *Gonyaulax tamarensis* (Dinophyceae) hypnozygotes. *Journal of Phycology* 16: 166-172.
- 1982 Anderson, D. M., D. M. Kulis, J. A. Orphanos, and A. R. Ceurvels. Distribution of the toxic dinoflagellate *Gonyaulax tamarensis* in the southern New England region. *Estuarine, Coastal and Shelf Science* 14: 447-458.
- 1982 Anderson, D. M., D. G. Aubrey, M. A. Tyler, and D. W. Coats. Vertical and horizontal distributions of dinoflagellate cysts in sediments. *Limnology and Oceanography* 27(4): 757-765.
- 1982 Tyler, M. A., D. W. Coats, and D. M. Anderson. Encystment in a dynamic environment: deposition of dinoflagellate cysts by a frontal convergence. *Marine Ecology Progress Series* 7: 163-178.
- 1982 Watras, C. J., S. W. Chisholm, and D. M. Anderson. Regulation of growth in an estuarine clone of *Gonyaulax tamarensis* Lebour: salinity-dependent temperature responses. *Journal of Experimental Marine Biology and Ecology* 62: 25-37.
- 1983 Anderson, D. M., S. W. Chisholm, and C. J. Watras. The importance of life cycle events in the population dynamics of *Gonyaulax tamarensis*. *Marine Biology* 76: 179-183.
- 1983 Turner, J. T. and D. M. Anderson. Zooplankton grazing during dinoflagellate blooms in a Cape Cod embayment, with observations of predation upon tintinnids by copepods. *Marine Ecology* 4: 359-374.
- 1984 Anderson, D. M. Shellfish toxicity and dormant cysts in toxic dinoflagellate blooms. In: E. Ragelis (Ed.). *Seafood Toxins*, ACS. Symposium Series. No. 262. pp. 125-138.
- 1984 Anderson, D. M., J. S. Lively, and R. F. Vaccaro. Copper complexation during spring phytoplankton blooms in coastal waters. *Journal of Marine Research* 42: 677-695.
- 1984 Anderson, D. M., D. M. Kulis, and B. J. Binder. Sexuality and cyst formation in the dinoflagellate *Gonyaulax tamarensis*: Cyst yield in batch cultures. *Journal of Phycology* 20: 418-425.
- 1984 Coats, D. W., M. A. Tyler, and D. M. Anderson. Sexual processes in the life cycle of the bloom-forming dinoflagellate *Gyrodinium aureolum*: A morphogenetic overview. *Journal of Phycology* 20: 351-361.
- 1984 Stoecker, D. K., L. H. Davis, and D. M. Anderson. Fine scale spatial correlations between planktonic ciliates and dinoflagellates. *Journal of Plankton Research* 6: 829-842.

- 1984 Schrey, S. E., E. J. Carpenter, and D. M. Anderson. The abundance and distribution of the toxic dinoflagellate *Gonyaulax tamarensis* in Long Island estuaries. *Estuaries* 7: 472-477.
- 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, Biological Oceanography Committee, C.M. 1984/C:6: 1-6.
- 1985 Anderson, D. M. Paralytic shellfish poisoning. In: Colwell, R.R. (Ed.), *Nature Toxins and Human Pathogens in the Marine Environment*. University of Maryland, College Park, MD.
- 1985 Anderson, D. M. and N. L. Lindquist. Time-course measurements of phosphorus depletion and cyst formation in the dinoflagellate *Gonyaulax tamarensis* Lebour. *Journal of Experimental Marine Biology and Ecology* 86: 1-13.
- 1985 Anderson, D. M., J. S. Lively, E. M. Reardon, and C. A. Price. Sinking characteristics of dinoflagellate cysts. *Limnology and Oceanography* 30: 1000-1009.
- 1985 Anderson, D. M., D. W. Coats, and M. A. Tyler. Encystment of the dinoflagellate *Gyrodinium uncatenum*: Temperature and nutrient effects. *Journal of Phycology* 21: 200-206.
- 1985 Anderson, D. M. and K. D. Stolzenbach. Selective retention of two dinoflagellates in a well-mixed estuarine embayment: the importance of diel vertical migration and surface avoidance. *Marine Ecology Progress Series* 25: 39-50.
- 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 Int'l Conf.*, Elsevier, New York. pp. 219-224.
- 1985 Maranda, L., D. M. Anderson, and Y. Shimizu. Comparison of toxicity between populations of *Gonyaulax tamarensis* of eastern North American waters. *Estuarine Coastal and Shelf Science* 21: 401-410.
- 1985 Watras, C. J., V. C. Garcon, R. J. Olson, S. W. Chisholm, and D. M. Anderson. The effect of zooplankton grazing on estuarine blooms of the toxic dinoflagellate *Gonyaulax tamarensis*. *Journal of Plankton Research* 7(6): 891-908.
- 1986 Binder, B. J. and D. M. Anderson. Green light-mediated photomorphogenesis in a dinoflagellate resting cyst. *Nature* 322: 659-661.
- 1986 Garcon, V. C., K. D. Stolzenbach, and D. M. Anderson. Tidal flushing of an estuarine embayment subject to recurrent dinoflagellate blooms. *Estuaries* 9: 179-187.

- 1986 Jacobson, D. M. and D. M. Anderson. Thecate heterotrophic dinoflagellates: feeding behavior and mechanisms. *Journal of Phycology* 22: 249-258.
- 1987 Anderson, D. M. and B. A. Keafer. An endogenous annual clock in the toxic marine dinoflagellate *Gonyaulax tamarensis*. *Nature* 325: 616-617.
- 1987 Anderson, D. M. and P. S. Lobel. The continuing enigma of ciguatera. *Biological Bulletin* 172: 89-107.
- 1987 Anderson, D. M., C. D. Taylor, and E. V. Armbrust. The effects of darkness and anaerobiosis on dinoflagellate cyst germination. *Limnology and Oceanography* 32: 340-351.
- 1987 Binder, B. J. and D. M. Anderson. Physiological and environmental control of germination in *Scrippsiella trochoidea* (Dinophyceae) cysts. *Journal of Phycology* 23: 99-107.
- 1987 Pfister, L. A. and D. M. Anderson. Dinoflagellate reproduction. In: Taylor, F.J.R. (Ed.), *The Biology of Dinoflagellates*. Blackwell Scientific Publications, Ltd. pp. 611-648.
- 1988 Anderson, D.M., and T. P.-O. Cheng. Intracellular localization of saxitoxins in the dinoflagellate *Gonyaulax tamarensis*. *Journal of Phycology* 24: 17-22.
- 1988 Anderson, D. M., D. M. Jacobson, I. Bravo and J. H. Wrenn. The unique microreticulate cyst of the naked dinoflagellate *Gymnodinium catenatum* Graham. *Journal of Phycology* 24: 255-262.
- 1988 Anderson, D. M., D. M. Nosenchuck, G. T. Reynolds and A. J. Walton. Mechanical stimulation of bioluminescence in the dinoflagellate *Gonyaulax polyedra* Stein. *Journal of Experimental Marine Biology and Ecology* 122: 277-288.
- 1988 Glibert, P. M., T. M. Kana and D. M. Anderson. Photosynthetic response of *Gonyaulax tamarensis* during growth in a natural bloom and in batch culture. *Marine Ecology Progress Series* 42: 303-309.
- 1988 Fraga, S., D. M. Anderson, I. Bravo, B. Reguera, K. A. Steindinger and C. M. Yentsch. Influence of upwelling relaxation on dinoflagellates and shellfish toxicity in Ria de Vigo, Spain. *Estuarine Coastal and Shelf Science* 27: 349-361.
- 1988 Lobel, P. S., D. M. Anderson and M. Durand-Clement. Assessment of ciguatera dinoflagellate populations: sample variability and algal substrate selection. *Biological Bulletin* 175: 94-101.

- 1988 Matsuoka, K., Y. Fukuyo and D. M. Anderson. Methods for modern dinoflagellate cyst studies. In: T. Okaichi, D. M. Anderson and T. Nemeto (Eds.). *Red Tides: Biology, Environmental Science and Toxicology*. Elsevier, New York, pp. 461-480.
- 1988 Matsuoka, K., Y. Fukuyo and D. M. Anderson. The cyst and theca of *Gonyaulax verior Sournia* and their implication for the systematics of the genus *Gonyaulax*. *Japanese Journal of Phycology* 36: 311-320.
- 1989 Anderson, D. M. Toxic algal blooms and red tides: a global perspective. pp. 11-16. In: T. Okaichi, D. M. Anderson, and T. Nemoto (eds.), *Red Tides: Biology, Environmental Science and Toxicology*. Elsevier.
- 1989 Anderson, D. M. Cysts as factors in *Pyrodinium bahamense* ecology. In: Hallegraeff, G. M. and J. L. MacLean (eds.). pp. 81-88. *Biology, Epidemiology and Management of Pyrodinium Red Tides*. Fisheries Department, Brunei Darussalam and International Center for Living Aquatic Resources Management, Manila.
- 1989 Anderson, D. M., D. M. Kulis and E. M. Cosper. "Immunofluorescent Detection of the Brown Tide Organism *Aureococcus anophagefferens*". In: *Novel Phytoplankton Blooms: Causes and Impacts of Recurrent Brown Tide and Other Unusual Blooms*. E. M. Cosper, E. J. Carpenter and M. Bricelj (Eds.). Springer-Verlag, New York, pp. 213-228.
- 1989 Anderson, D. M., J. J. Sullivan, and B. Reguera. Paralytic shellfish poisoning in northwest Spain: the toxicity of the dinoflagellate *Gymnodinium catenatum*. *Toxicon*. 27: 665-674.
- 1989 Caron, D. A., E. L. Lin, H. Kunze, E. M. Cosper and D. M. Anderson. Trophic interactions between nano- and microzooplankton and the "brown tide". In: E. M. Cosper, V. M. Bricelj and E. J. Carpenter (Eds.). *Novel Phytoplankton Blooms: Causes and Impacts of Recurrent Brown Tide and Other Unusual Blooms*. Springer-Verlag, New York, pp. 265-294.
- 1989 Franks, P. J. S. and D. M. Anderson. Sampling coastal dinoflagellate blooms: Equipment, strategies and data processing. In: Hallegraeff, G. M. and J. L. MacLean (Eds.). *Biology, Epidemiology, and Management of Pyrodinium Red Tides*. Fisheries Department, Brunei Darussalam and International Center for Living Aquatic Resources Management, Manila, pp. 235-254.
- 1989 Fritz, L., D. M. Anderson and R. E. Triemer. Ultrastructural aspects of sexual reproduction in the red tide dinoflagellate *Gonyaulax tamarensis*. *Journal of Phycology* 25: 95-107.

- 1989 Fraga, S., S. M. Gallager and D. M. Anderson. Chain-forming dinoflagellates: an adaptation to red tides. In: T. Okaichi, D. M. Anderson and T. Nemoto (Eds.). *Red Tides: Biology, Environmental and Science and Toxicology*. Elsevier, New York. pp. 281-284.
- 1989 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*. Elsevier, New York, pp. 153-156.
- 1989 Geraci, J. A., D. M. Anderson, R. J. Timperi, D. J. St. Aubin, G. A. Early, J. A. Prescott and C. A. Mayo. Humpback whales (*Megaptera novaeangliae*) fatally poisoned by dinoflagellate toxin. *Canadian Journal of Fisheries and Aquatic Sciences* 46: 1895-1898.
- 1989 Hayhome, B. A., D. M. Anderson, D. M. Kulis and D. J. Whitten. Variation among congeneric dinoflagellates from the northeastern United States and Canada. I. Enzyme electrophoresis. *Marine Biology* 101: 427-435.
- 1989 Tracey, G. A., R. L. Steele, J. Gatzke, D. K. Phelps, R. Nuzzi, M. Waters and D. M. Anderson. Testing and application of biomonitoring methodologies for assessing environmental effects of noxious algal blooms. In: E. M. Cosper, V. M. Bricelj and E. J. Carpenter (Eds.). *Novel Phytoplankton Blooms: Causes and Impacts of Recurrent Brown Tide and Other Unusual Blooms*. Springer-Verlag, New York, pp. 557-574.
- 1990 Anderson, D. M., Toxin variability in *Alexandrium* species. In: Graneli, E., L. Edler, B. Sundström and D. M. Anderson (Eds.). *Toxic Marine Phytoplankton*. Elsevier, New York, pp. 41-51.
- 1990 Anderson, D. M., D. M. Kulis, J. J. Sullivan, S. Hall and C. Lee. Dynamics and physiology of saxitoxin production by the dinoflagellates *Alexandrium* spp. *Marine Biology* 104: 511-524.
- 1990 Anderson, D. M., D. M. Kulis, J. J. Sullivan and S. Hall. Toxin composition variations in one isolate of the dinoflagellate *Alexandrium fundyense*. *Toxicon* 28: 885-893.
- 1990 Binder, B. J. and D. M. Anderson. Biochemical composition and metabolic activity of *Scrippsiella trochoidea* (*Dinophyceae*) resting cysts. *Journal of Phycology* 26: 289-298.
- 1990 Bricelj, V. M., J. H. Lee, A. D. Cembella and D. M. Anderson. Uptake kinetics of paralytic shellfish toxins from the dinoflagellate *Alexandrium fundyense* in the mussel *Mytilus edulis*. *Marine Ecology Progress Series* 63: 177-188.



- 1990 Bricelj, V. M., J. H. Lee, A. D. Cembella and D. M. Anderson. Uptake of *Alexandrium fundyense* by *Mytilus edulis* and *Mercenaria mercenaria* under controlled conditions. In: Graneli, E., L. Edler, B. Sundström and D. M. Anderson (Eds.). *Toxic Marine Phytoplankton*. Elsevier, New York, pp. 269-274.
- 1990 Cetta, C. M. and D. M. Anderson. Cell cycle studies of the dinoflagellate *Gonyaulax polyedra* Stein and *Gyrodinium uncatenum* Hulburt during asexual and sexual reproduction. *Journal of Experimental Marine Biology and Ecology* 135: 69-84.
- 1990 Lirdwitayaprasit, T., T. Okaichi, S. Montani, T. Ochi and D. M. Anderson. Changes in cell chemical composition during the life cycle of *Scrippsiella trochoidea* (Dinophyceae). *Journal of Phycology* 26: 299-306.
- 1990 Nakamura, Y., T. Umemori, M. Watanabe, D. M. Kulis and D. M. Anderson. Encystment of *Chatonella antiqua* in laboratory culture. *Journal of the Oceanographic Society of Japan* 46: 35-43.
- 1991 Schwinghamer, P., D. M. Anderson and D. M. Kulis. Separation and concentration of living dinoflagellate resting cysts from marine sediments via density gradient centrifugation. *Limnology and Oceanography* 36: 588-592.
- 1992 Anderson, D. M., A. Grabher and M. Herzog. Separation of coding sequences from structural DNA in the dinoflagellate *Cryptothecodinium cohnii*. *Molecular Marine Biology and Biotechnology* 1: 89-96.
- 1992 Anderson, D. M. and B. A. Keafer. Paralytic shellfish poisoning on Georges Bank: in situ growth or advection of established dinoflagellate populations? *Proceedings of the Gulf of Maine Scientific Workshop*, Wiggin, J. and C. N. K. Moers (Eds.), Urban Harbors Institute, University of MA, Boston.
- 1992 Anderson, D.M. and A. W. White. Marine biotoxins at the top of the food chain. *Oceanus*, 35: 55-61.
- 1992 Franks, P. J. S. and D. M. Anderson. Alongshore transport of a toxic phytoplankton bloom in a buoyancy current: *Alexandrium tamarensis* in the Gulf of Maine. *Marine Biology* 112: 153-164.
- 1992 Franks, P. J. S. and D. M. Anderson. Toxic phytoplankton blooms in the southwestern Gulf of Maine: Testing hypotheses of physical control using historical data. *Marine Biology* 112: 165-174.
- 1992 Jacobson, D. M. and D. M. Anderson. Ultrastructure of the feeding apparatus of the heterotrophic dinoflagellate *Protoperidinium spinulosum* Schiller. *J. Phycol.* 28: 69-82.

- 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.
- 1993 Adachi, M., Y. Sako, Y. Ishida, D. M. Anderson, M. Kodama, T. Ogata, and B. Reguera. Cross-reactivity of five monoclonal antibodies to various isolates of *Alexandrium* from the United States, Japan, Spain, and Thailand. *Nippon Suisan Gakkaishi* 59: (10)1807.
- 1993 Anderson, D.M., B. A. Keafer, D.M. Kulis and 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. Plank. Res.* 15: 563-580.
- 1993 Bates, S. S., C. Léger, 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* 100: 185-195.
- 1993 Doucette, G. J. and D. M. Anderson. Intracellular distribution of saxitoxin in *Alexandrium fundyense*. In: *Toxic Phytoplankton Blooms in the Sea*, T. Smayda and Y. Shimizu (Eds.), Elsevier, Amsterdam, pp. 863-868.
- 1993 Jacobson, D.M. and D.M. Anderson. Growth and grazing rates of *Prorocentrum hiobis* Abé, a thecate heterotrophic dinoflagellate. *J. Plank. Res.* 15: 723-736.
- 1993 Judge, B. S., C. A. Scholin, and D. M. Anderson. 1993. RFLP analysis of a fragment of the large-subunit ribosomal RNA gene of globally distributed populations of the toxic dinoflagellate *Alexandrium*. *Biological Bulletin* 185: 329-330.
- 1993 Keafer, B. A. and D. M. Anderson. Use of remotely-sensed sea surface temperatures for studies of *Alexandrium* bloom dynamics in the southwestern Gulf of Maine. In: *Toxic Phytoplankton Blooms in the Sea*, T. Smayda and Y. Shimizu (Eds.), Elsevier, Amsterdam, pp. 763-768.
- 1993 Scholin, C. A. and D. M. Anderson. Population analysis of toxic and non-toxic *Alexandrium* species using ribosomal RNA signature sequences. In: *Toxic Phytoplankton Blooms in the Sea*, T. Smayda and Y. Shimizu (Eds.), Elsevier, Amsterdam, pp. 95-102.
- 1993 Scholin, C. A., D. M. Anderson and M. L. Sogin. The existence of two distinct small-subunit rRNA genes in the North American toxic dinoflagellate *Alexandrium fundyense* (*Dinophyceae*). *J. Phycol.* 29: 209-216.
- 1994 Anderson, D. M. Red tides. *Scientific American* 271: 52-58.

- 1994 Anderson, D. M., D. M. Kulis, G. J. Doucette, J. C. Gallagher and E. Balech. Biogeography of toxic dinoflagellates in the genus *Alexandrium* from the northeast United States and Canada as determined by morphology, bioluminescence, toxin composition, and mating compatibility. *Mar. Biol.* 120: 467-478.
- 1994 Bravo, I. and D. M. Anderson. The effects of temperature, growth medium and darkness on excystment and growth of the toxic *dinoflagellate* *Gymnodinium catenatum* from northwest Spain. *J. Plankton Res.* 16: 513-525.
- 1994 Scholin, C. A. and D. M. Anderson. Identification of group- and strain-specific genetic markers for globally distributed *Alexandrium* (*Dinophyceae*) species. I. RFLP analysis of SSU-rRNA genes. *J. Phycol.* 30: 744-754.
- 1994 Scholin, C. A., M. Herzog, M. Sogin and D. M. Anderson. Identification of group- and strain-specific genetic markers for globally distributed *Alexandrium* (*Dinophyceae*) species. II. Sequence analysis of a fragment of the large-subunit ribosomal RNA gene. *Journal of Phycol.* 30: 999-1011.
- 1994 Usup, G., D. M. Kulis and D. M. Anderson. Growth and toxin production of the toxic dinoflagellate *Pyrodinium bahamense* var. *compressum* in laboratory cultures. *Natural Toxins* 2: 254-262.
- 1995 Anderson, D. M. Identification of harmful algal species using molecular probes: an emerging perspective. In: *Harmful Marine Algal Blooms*, Lassus, P., G. Arzul, E. Erard, P. Gentien, C. Marcaillou (eds.), Technique et Documentation - Lavoisier, Intercept Ltd., pp. 3-13.
- 1995 Anderson, D. M. Toxic red tides and harmful algal blooms: A practical challenge in coastal oceanography. U.S. National Report to the IUGG American Geophysical Union, pp. 1189-1200.
- 1995 Anderson, D. M., Y. Fukuyo and K. Matsuoka. Cyst methodologies. In: *Manual on Harmful Marine Microalgae*, Hallegraeff, G. M., D. M. Anderson and A. D. Cembella (eds), IOC Manuals and Guides No. 33. UNESCO (English only), pp. 229-245.
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