

Wade H. Jeffrey

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EDUCATION

B.S. Biology. Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 1981.

M.S. Marine Science. University of South Florida, St. Petersburg, FL, 1985.

Thesis Title: *The activity of attached and free-living estuarine bacteria*

Thesis Advisor: John H. Paul

Ph.D. Marine Science. University of South Florida, St. Petersburg, FL, 1989.

Dissertation Title: *Validation of [³H]thymidine incorporation and its application to detecting natural transformation in the environment*

Dissertation Advisor: John H. Paul

HONORS AND AWARDS

Distinguished Research and Creative Activity Award, University of West Florida (2000; 2007) National Research Council Post Doctoral Fellowship (1989)

John B. Lake Fellowship In Marine Science, awarded to the outstanding graduate student in the Marine Science Department (1987)

Gulf Oceanographic Development Foundation Fellowship (1985)

RESEARCH INTERESTS

Effects of ultraviolet radiation on marine ecosystems and induction of bacterial DNA damage repair systems; Ecological impact of stress; Microbial biodiversity

EMPLOYMENT HISTORY

2006 –Present. Professor, Department of Biology and Center for Environmental Diagnostics and Bioremediation. University of West Florida, Pensacola, FL.

2000-2006. Associate Professor, Department of Biology and Center for Environmental Diagnostics and Bioremediation. University of West Florida, Pensacola, FL.

1997-2000. Assistant Professor, Department of Biology and Center for Environmental Diagnostics and Bioremediation. University of West Florida, Pensacola, FL.

1991-97. Research Assistant Professor, Center for Environmental Diagnostics and Bioremediation. University of West Florida, Pensacola, FL.

1991. Senior Project Microbiologist, Technical Resources, Inc., U.S. Environmental Protection Agency, Environmental Research Laboratory, Gulf Breeze, FL.
- 1990-1. Project Microbiologist, Technical Resources, Inc., U.S. Environmental Protection Agency, Environmental Research Laboratory, Gulf Breeze, FL
- 1989-90. National Research Council Post Doctoral Fellow, U.S. Environmental Protection Agency, Environmental Research Laboratory, Gulf Breeze, FL.
1989. Project Microbiologist, Technical Resources, Inc., U.S. Environmental Protection Agency, Environmental Research Laboratory, Gulf Breeze, FL.

GRANTS AND CONTRACTS -AWARDED

- United States Environmental Protection Agency. Molecular Microbial Ecology Research Program. Principal Investigator. 9/91 - 9/94. \$626,159.
- Florida Institute of Oceanography. *UWF/CEDB Molecular Microbial Ecology Research Initiatives in Oceanography*. Principal Investigator. Shiptime Award. 1992.. \$10,800.
- National Oceanographic and Atmospheric Administration National Undersea Research Program. *Microbial Community Dynamics in mucus of healthy and stressed corals*. Principal Investigator. 6/92 - 6/93. \$7,000.
- Florida Institute of Oceanography. *Microbial gene expression, trophic interactions, and nutrient dynamics in the waters of the northeastern Gulf of Mexico*. Principal Investigator. Shiptime award. 1993. \$7,200.
- Office of Naval Research. *Detection of in situ genetic damage in marine bacteria resulting from introduced xenobiotics*. Principal Investigator. 7/93 - 6/97. \$307,486.
- US Environmental Protection Agency. *Bacterial recA gene expression in the marine environment: the effect of ultraviolet light*. Principal Investigator. 10/93-9/97. \$468,410.
- Florida Institute of Oceanography. *Microbial activity patterns in North Florida Coastal Waters and expression of bacterial genes indicative of stress*. Principal Investigator. Shiptime award. 1994. \$10,000.
- National Science Foundation. *Ultraviolet radiation induced DNA damage in bacterioplankton in the southern ocean*. Principal Investigator. 8/1/95 - 7/31/98. \$421,041.
- National Oceanographic and Atmospheric Administration National Undersea Research Program. *Molecular assessment of the effect of ultraviolet radiation on coral reef microbial ecology*. Principal Investigator. 1995. \$17,214
- Florida Institute of Oceanography. *Ultraviolet radiation effects on coral reef microbial ecology and isolation of algal symbionts bearing protists*. Principal Investigator. Shiptime award. 1995. \$8,000.

Office of Naval Research. *Detection of in situ genetic damage in marine bacteria resulting from introduced xenobiotics*. -Supplimental Funding Principal Investigator. 6/96 - 5/97. \$37,118.

National Oceanographic and Atmospheric Administration National Undersea Research Program. *Ultraviolet radiation induced DNA damage in coral reef microbial communities*. Principal Investigator. 4/1/97 - 3/31/99. \$37,876

Florida Institute of Oceanography. *Biological Oceanography Sampling Methodologies*. Principal Investigator. Shiptime award. 1997. \$12,000.

Florida Institute of Oceanography. *Biological Oceanography Sampling Methodologies*. Principal Investigator. Shiptime award. 1998. \$6,000.

US Environmental Protection Agency. *Science Training in Ecology Program (STEP)*. Project Manager. 3/1/98 - 2/28/01. \$898,024.

National Science Foundation. *Ultraviolet radiation induced DNA damage in bacterioplankton in the southern ocean. II. Photochemical & trophic interactions and seasonal patterns of UV response*. Principal Investigator. 8/1/98 - 7/31/01. \$344,422. (Total project budget: \$759,522).

National Science Foundation. *UV effects on marine production by bacteria and phytoplankton: Assessing the impact of UVB*. Co-Principal Investigator. 10/1/98 - 9/30/01. \$156,697 (Total project budget: \$ 335,750).

Florida Institute of Oceanography. *Biological Oceanography Sampling Methodologies*. Principal Investigator. Shiptime award. 1999. \$6,000.

National Science Foundation. *Ultraviolet radiation induced DNA damage in bacterioplankton in the southern ocean*. Supplemental Funding: *Latitudinal effects of ultraviolet radiation on marine microbial communities and molecular diversity of genes important in biogeochemical cycles*. Principal Investigator: 2000. \$12,810

National Science Foundation. *UV effects on marine production by bacteria and phytoplankton: Assessing the impact of UVB*. Supplemental Funding: *Summer Research Experience for Undergraduates (REU)*. Principal Investigator. 2000. \$5000.

Florida Institute of Oceanography. *Biological Oceanography Sampling Methodologies*. Principal Investigator. Shiptime award. 2000. \$8,000.

Florida Institute of Oceanography. *Oceanographic Techniques*. Principal Investigator. Shiptime award. 2001. \$6,000.

National Science Foundation: *LexEn Collaborative research: Glacial "hitchhiking:" A mechanism for bacterial speciation in an extremely cold environment*. Co-Principal Investigator. 10/1/00 - 9/30/03. \$138,459. (Total project budget: \$500,000)

University of West Florida. Faculty Small Grants Award. *Investigation of molecular diversity of important functional genes in marine bacteria*. Principal Investigator. 2001. \$2000

University of West Florida. University Summer Research Award. *Spatial Heterogeneity of marine bacterial community structure and function*. Principal Investigator. 2001. \$7,500 (declined).

National Science Foundation. *Ultraviolet radiation induced DNA damage in bacterioplankton in the southern ocean. Supplemental Funding: Summer Research Experience for Undergraduates (REU)*. Principal Investigator. 2001. \$5,000.

Florida Institute of Oceanography. *Oceanographic Techniques*. Principal Investigator. Shiptime award. 2002. \$6,000.

Bay Area Resource Commission. *An assessment of the source of human sewage waste input into Coldwater and Pond Creeks*. Co-Principal Investigator. 2002. \$18,988

National Science Foundation. *Collaborative Proposal: Interactive Effects of UV and Vertical Mixing on Phytoplankton and Bacterial Productivity of Ross Sea Phaeocystis Blooms*. Co Principal Investigator. 9/02 - 8/31/05. \$356,109. (Total Project budget \$975,350).

National Science Foundation. *Interactive Effects of UV Radiation and Temperature on Pelagic Foodwebs*. Co-Principal Investigator. 9/02/02 - 8/31/07 \$263,626 (Total Project budget \$2,750,000).

National Science Foundation. *Interactive Effects of UV and Vertical Mixing on Phytoplankton and Bacterial Productivity of Ross Sea Phaeocystis Blooms. Supplemental Funding Latitudinal Effects of UVR on Bacterioplankton: BRIDE OF TABASCO science of opportunity cruise NBP02-05*. \$16,786.

Florida Institute of Oceanography. *Marine Field Ecology*. Principal Investigator. Shiptime award. 2003. \$8,800.

University of West Florida. Faculty Scholarly and Creative Activity Award. *Development of International Research Collaborations with the Laboratoire d'Océanographie de Banyuls: Induction of Microbial Community Responses to Ultraviolet Radiation in Marine Ecosystems*. Principal Investigator. 2003. \$2000.

University of West Florida. University Summer Research Award. *The effects of growth rate and the response to ultraviolet radiation by marine bacterioplankton" preliminary data and proposal preparation*. Principal Investigator. 2003. \$6,250.

National Science Foundation. *Interactive Effects of UV and Vertical Mixing on Phytoplankton and Bacterial Productivity of Ross Sea Phaeocystis Blooms. Supplemental Funding Latitudinal Effects of UVR on Bacterioplankton:POTATOE science of opportunity cruise NBP03-04*. \$7,976.

Florida Institute of Oceanography. *Marine Field Ecology*. Principal Investigator. Shiptime award. 2003. \$9,000.

National Science Foundation Office of International Science and Engineering U.S.-France Cooperative Science Program. *The effect of nutrient limitation on the response of marine bacterioplankton to solar ultraviolet radiation: A comparison between nitrogen and phosphorous limited ecosystems*. Principal Investigator. 2/15/04 – 1/31/07. \$18,000.

University of West Florida. Faculty Scholarly and Creative Activity Award. *Nutrient availability and the response to ultraviolet radiation in marine bacterioplankton*. Principal Investigator. 2004. \$2000.

Centre National De La Recherche Scientifique. Institut National des Sciences de l'Univers, Département des Sciences de l'Univers.. *Impact du rayonnement solaire ultraviolet sur les bactéries marines : influence du mélange vertical des masses d'eau et des limitations nutritionnelles*. Visiting Research Scientist, Laboratoire d'Océanographie Biologique de Banyuls, France. 4/25/04 – 7/22/04. \$8825.

Florida Institute of Oceanography. *Biological Oceanography Laboratory*. Principal Investigator. Shiptime award. 2004. \$6,600.

University of West Florida. Faculty Scholarly and Creative Activity Award. Continued International Research Collaborations with the Laboratoire d'Océanographie Biologique de Banyuls: Nutrient availability and the response to ultraviolet radiation in marine bacterioplankton. Principal Investigator. 2005. \$2000

University of West Florida. University Summer Research Award. *Preparation of proposals to expand investigations of the effects of ultraviolet radiation on marine microorganisms*. Principal Investigator. 2005. \$6,250.

National Science Foundation. *Interactive Effects of UV and Vertical Mixing on Phytoplankton and Bacterial Productivity of Ross Sea Phaeocystis Blooms*. Supplemental Funding. 9/1/05 – 8/31/06. Principal Investigator. \$134,999.

University of West Florida. Faculty Scholarly and Creative Activity Award. Interactions between nutrient availability and the response to ultraviolet radiation in marine bacterioplankton. Principal Investigator. 2006. \$2000.

Florida Institute of Oceanography. *Marine Microbiology Laboratory*. Principal Investigator. Shiptime award. 2006. \$6,600. (Declined).

U.S. EPA. *Science Training in Ecology Program II*. Principal Investigator. 1/1/07- 12/31/09. \$150,000.

University of West Florida. University Summer Research Award. *Bacterioplankton uptake of carbon released by phytoplankton during high light conditions*. Principal Investigator. 2007. \$6,750.

University of West Florida. Faculty Scholarly and Creative Activity Award. Field experiments to examine the uptake by bacterioplankton of carbon released by phytoplankton during high light conditions. Principal Investigator. 2007. \$2000.

Florida Sea Grant. Preliminary data analysis to test land-use influence on red tide in Choctawhatchee Bay, Florida. Co-principal Investigator. 2008. \$3500.

University of West Florida. Faculty Scholarly and Creative Activity Award. *Interactive effects of ultraviolet radiation and climate change parameters on marine bacterioplankton production*. Principal Investigator. 2008. \$2000.

Florida Institute of Oceanography. Survey of Oceanography field sampling. Principal Investigator. Shiptime Award. 2008. \$8,800.

Merck Institute for Science Education and the American Association for the Advancement of Science. Merck/AAAS Undergraduate Science Research Program. Co-Principal Investigator. 5/1/09 – 4/30/12. \$120,000.

PUBLICATIONS

Paul, J.H., and **W.H. Jeffrey**. 1984. Measurements of diameters of estuarine bacteria and particulates in natural water samples by use of a submicron particle analyzer. *Current Microbiology* 10: 7-12.

Paul, J.H., and **W.H. Jeffrey**. 1985. The effect of surfactants on the attachment of estuarine and marine bacteria to surfaces. *Can. J. Microbiol.* 31: 224-228.

Paul, J.H., and **W.H. Jeffrey**. 1985. Evidence for separate adhesion mechanisms for hydrophilic and hydrophobic surfaces in *Vibrio proteolytica*. *Applied and Environmental Microbiology* 50: 431-437.

Paul, J.H., **W.H. Jeffrey**, and M.F. DeFlaun. 1985. Particulate DNA in subtropical oceanic and estuarine planktonic environments. *Marine Biology* 90: 95-101.

Jeffrey, W.H., and J.H. Schiltz. 1985. Algaecides: Solutions or problems? *Pool and Spa News* 24: 154-156.

Jeffrey, W.H., and J.H. Paul. 1986. The activity of attached and free-living *Vibrio* sp. as measured by thymidine incorporation, p-iodonitrotetrazolium reduction, and ATP/DNA ratios. *Applied and Environmental Microbiology* 51: 150-156.

Jeffrey, W.H., and J.H. Paul. 1986. Activity measurements of planktonic microbial and microfouling communities in a eutrophic estuary. *Applied and Environmental Microbiology* 51: 157-162.

Paul, J.H., M.F. DeFlaun, and **W.H. Jeffrey**. 1986. Elevated levels of microbial activity in the coral surface microlayer. *Mar. Ecol. Progr. Ser.* 33: 29-40.

Paul, J.H., **W.H. Jeffrey**, and M.F. DeFlaun. 1987. The dynamics of extracellular DNA in the marine environment. *Applied and Environmental Microbiology* 53: 170-179.

DeFlaun, M.F., J.H. Paul, and **W.H. Jeffrey**. 1987. Distribution and molecular weight of dissolved DNA in subtropical estuarine and oceanic environments. *Marine Ecology Progress Series* 34: 65-73.

- Jeffrey, W.H.**, and J.H. Paul. 1988. The effect of 5-fluoro 2'-deoxyuridine on [³H]thymidine incorporation by bacterioplankton in the waters of southwest Florida. *Applied and Environmental Microbiology* 54: 331-336.
- Paul, J.H., M.F. DeFlaun, **W.H. Jeffrey**, and A.W. David. 1988. Seasonal and diel variability in dissolved DNA and in microbial biomass and activity in a subtropical estuary. *Applied and Environmental Microbiology* 54: 718-727.
- Paul, J.H., M.F. DeFlaun, and **W.H. Jeffrey**. 1988. Mechanisms of DNA utilization by estuarine microbial populations. *Appl. Environ. Microbiol.* 54: 1682-1688.
- Jeffrey, W.H.**, and J.H. Paul. 1988. Underestimation of DNA synthesis by [³H]thymidine incorporation in marine bacteria. *Applied and Environ. Microbiology* 54: 3165-3168.
- Paul, J.H., **W.H. Jeffrey**, A.W. David, M.F. DeFlaun, and L.H. Cazares. 1989. The turnover of extracellular DNA in eutrophic and oligotrophic freshwater environments of southwest Florida. *Applied and Environmental Microbiology* 55: 1823-1828.
- Jeffrey, W.H.**, and J.H. Paul. 1990. Thymidine uptake, thymidine incorporation, and thymidine kinase activity in marine bacterium isolates. *Applied and Environmental Microbiology* 56: 1367-1372.
- Jeffrey, W.H.**, J.H. Paul, and G.J. Stewart. 1990. Natural transformation of a marine *Vibrio* sp. by plasmid DNA. *Microbial Ecology* 19: 259-268.
- Jeffrey, W.H.**, J.H. Paul, L.H. Cazares, M.F. DeFlaun, and A.W. David. 1990. Correlation of non-specific macromolecular labeling with environmental parameters during [³H]thymidine incorporation in the waters of southwest Florida. *Microb. Ecol.* 20: 21-35.
- Paul, J.H., **W.H. Jeffrey**, and J.P. Cannon. 1990. Production of dissolved DNA, RNA, and protein by microbial populations in a Florida reservoir. *Applied and Environmental Microbiology* 56: 2957-2962.
- Paul, J.H., L.H. Cazares, A.W. David, M.F. DeFlaun, and **W.H. Jeffrey**. 1991. The distribution of dissolved DNA in oligotrophic and eutrophic rivers in southwest Florida. *Hydrobiologia* 218: 53-63.
- Jeffrey, W.H.**, S.M. Cuskey, P.J. Chapman, S. Resnick, and R.H. Olsen. 1992. *Pseudomonas putida* mutants unable to catabolize benzoate: Cloning and characterization of *Pseudomonas* genes involved in benzoate catabolism and isolation of a chromosomal DNA fragment able to substitute for xyIS in the activation of the TOL lower pathway promoter. *J. Bacteriol.* 174: 4986-4996.
- Jeffrey, W.H.**, S. M Cuskey, R. B. Coffin, and M. Reagin. 1992. The use of lethal bacterial genes to limit the survival of intentionally released genetically engineered microorganisms, pp. 225-227. *In* Proceedings of the 4th investigators' meeting for EPA's biotechnology-biological control agent risk assessment research program. United States Environmental Protection Agency, Washington, DC. EPA/600/R-92/147.

- Jeffrey, W.H.**, S. Nazaret, and R. Von Haven. 1994. Improved method for the recovery of mRNA from aquatic samples: application to detecting *mer* gene expression. *Appl. Environ. Microbiol.* 60: 1814-1821.
- Nazaret, S., **W.H. Jeffrey**, E. Saouter, R. VonHaven, and T. Barkay. 1994. *mer* gene expression in aquatic environments measured by mRNA production and Hg(II) volatilization. *Appl. Environ. Microbiol.* 60: 4059-4065.
- Santavy, D.L., **W.H. Jeffrey**, R.A. Snyder, J. Campbell, P. Malouin, and L. Cole. 1994. Microbial community dynamics in the mucus of healthy and stressed coral hosts. *Bull. Mar. Sci.* 54: 1077-1078.
- Barkay, T., S. Nazaret, and **W.H. Jeffrey**. 1995. Degradative genes in the environment. *In: L.Y. Young and C. Cerniglia (ed) Microbiological transformation and degradation of toxic organic chemicals.* Wiley-Liss, Inc., New York. pp. 545-577.
- Jeffrey, W.H.**, D.L. Mitchell, and R.B. Coffin. 1995. Molecular studies of ultraviolet radiation effects on marine bacteria, pp. 90-104. *In: M. Levin, C. Grim, and J.S. Angle (eds.), Biotechnology Risk Assessment: Risk Assessment Methodologies, Proceeding of the Biotechnology Risk Assessment Symposium.* University of Maryland Biotechnology Institute, College Park.
- Jeffrey, W.H.**, R.J. Pledger, P. Aas, S. Hager, R.B. Coffin, R. Von Haven, and D.L. Mitchell. 1996. Diel and depth profiles of DNA photodamage in bacterioplankton exposed to ambient solar ultraviolet radiation. *Mar. Ecol. Progr. Ser.* 137: 293-304.
- Jeffrey, W.H.**, S. Nazaret, and T. Barkay. 1996. Detection of the *merA* gene and its expression in the environment. *Microb. Ecol.* 32: 293-303.
- Jeffrey, W.H.**, R. Von Haven, M.P. Hoch, and R.B. Coffin. 1996. Bacterioplankton RNA, DNA, protein content and relationships to rates of thymidine and leucine incorporation. *Aquatic Microbial Ecology* 10: 87-95.
- Pakulski, J.D., R.B. Coffin, C.A. Kelley, R. Downer, M. Maille Lyons, P. Aas, and **W.H. Jeffrey**. 1996. Iron stimulation of Antarctic bacteria. *Nature* 383: 133-134.
- Jeffrey, W.H.**, P. Aas, M. M. Lyons, R. Pledger, D.L. Mitchell, and R. B. Coffin. 1996. Ambient Solar Radiation Induced Photodamage in Marine Bacterioplankton. *Photochem. Photobiol.* 64 (3): 419-427.
- Aas, P., M. M. Lyons, R. J. Pledger , D.L. Mitchell, and **W.H. Jeffrey**. 1996. Inhibition of Bacterial Activities by Solar Radiation in Nearshore Waters and the Gulf of Mexico. *Aquat. Microb. Ecol.* 11: 229-238.
- Booth, C.R., J.H. Morrow, T.P. Coohill, J.J. Cullen, J.E. Frederick, D-P. Häder, O. Holm-Hansen, **W. H. Jeffrey**, D.L. Mitchell, P.J. Neale, I. Sobolev, J. Van Der Leun, and R.C. Worrest. 1997. Impacts of Solar UVR on Aquatic Microorganisms. *Photochem. Photobiol.* 65: 252-269.

- Jeffrey, W.H.**, R.V. Miller, and D.L. Mitchell. 1997. Detection of ultraviolet radiation induced DNA damage in microbial communities of the Gerlache Strait. *The Antarctic Journal of the United States*. 32: 85-87.
- Pakulski, J.D., P. Aas P, **W.H. Jeffrey**, M. Lyons, L. Von Waasenbergen, D. Mitchell, and R. Coffin. 1998. Influence of light on bacterioplankton production and respiration in a subtropical reef. *Aquatic Microbial Ecology* 14:137-148.
- Jeffrey, W.H.** 1998. Induction of DNA Photodamage in Marine Microbial Communities By Ultraviolet Radiation. In H. Honigsmann, R.M. Knobler, F. Trautinger, and G. Jori (eds) Proceedings of the 12th International Congress on Photobiology. Association Internationale de Photobiologie. Organizzazione Editoriale Medico Farmaceutica, Milano, Italy. pp. 26-30.
- Lyons, M.M., P. Aas, J.D. Pakulski, L. Van Waasbergen, D.L. Mitchell, R.V. Miller, and **W.H. Jeffrey**. 1998. Ultraviolet radiation induced DNA damage in coral reef microbial communities. *Marine Biology* 130: 537-543.
- Wilhelm, S.W., M.G. Weinbauer, C.A. Suttle, and **W.H. Jeffrey**. 1998. The role of sunlight in the removal and repair of viruses in the sea. *Limnology and Oceanography* 43: 586-592.
- Massana, R. L. T. Taylor, A.E. Murray, K. Y. Wu, **W.H. Jeffrey**, and E. F. DeLong. 1998. Distribution of marine planktonic Archaea in the Gerlache Strait, Antarctic Peninsula, during early spring. *Limnology and Oceanography* 43: 618-624.
- Miller, R.V., **W. Jeffrey**, D. Mitchell, and M. Elasri. 1999. Bacterial responses to Solar Ultraviolet light. *ASM News* 65: 535-541.
- Joux, F., **W.H. Jeffrey**, P. Lebaron, and D. Mitchell. 1999. Marine Bacteria Display Diverse Responses To Ultraviolet-B Radiation. *Applied and Environmental Microbiology* 65: 3820-3827.
- Kelley, C.A, J.D. Pakulski, S.H. Sandvik, R.B. Coffin, R.C. Downer, Jr., P. Aas, M.M. Lyons, and **W.H. Jeffrey**. 1999. Phytoplanktonic and bacterial carbon pools and productivities in the Gerlache Strait, Antarctica during early austral spring. *Microb. Ecol.* 38: 296-305.
- Jeffrey, W.H.** J.P. Kase, and S.W. Wilhelm. 2000. Ultraviolet Radiation Effects on Bacteria and Viruses in Marine Ecosystems. In S. de Mora, S. Demers, and M. Vernet (ed). *The Effects of UV Radiation on Marine Ecosystems*. Cambridge University Press. pp. 206-236.
- Huot, Y., J.J. Cullen, **W.H. Jeffrey**, and R.F. Davis. 2000. Damage to DNA in bacterioplankton: a model of damage by ultraviolet radiation and its repair as influenced by vertical mixing. *Photochemistry and Photobiology* 72:62-74.
- Kepner, R.L., R.A. Wharton, R. Collier, C. Cockell, and **W.H. Jeffrey**. 2000. UV radiation and potential effects beneath the perennial ice cover of an Antarctic lake. *Hydrobiologia*. 427:155-165.

- Jeffrey, W.H.** And D.L. Mitchell. 2001. Measurement of UVB induced DNA damage in marine planktonic communities. In J. Paul (ed) *Methods in Marine Microbiology*. Vol. 30. Academic Press, NY. pp. 469-485.
- Booth, M.G, L. Hutchinson, M. Brumsted, P. Aas, R. B. Coffin, R. C. Downer, Jr, C. A. Kelley, M. M. Lyons, J. D. Pakulski, S. L. Holder Sandvik, **W. H. Jeffrey**, and R. V. Miller. 2001. Quantification of RecA as an Indicator of Repair Potential in Marine Bacterioplankton Communities of Antarctica. *Aquatic Microbial Ecology* 24: 51-59.
- Booth, M.G., **W.H. Jeffrey**, and R.V. Miller. 2001. RecA expression in response to solar ultraviolet radiation in the marine bacterium *Vibrio natriegens*. *Microbial Ecology* 42:531-53.
- Meador, J., **W. H. Jeffrey**, J. P. Kase, J. D. Pakulski, S. Chiarello¹, and D. L. Mitchell. 2002. Seasonal fluctuation of DNA photodamage in Plankton Assemblages at Palmer Station, Antarctica. *Photochemistry and Photobiology* 75: 266-271.
- Mitchell, D.L, J. Meador, L. Paniker, D. Gasparutto, **W.H. Jeffrey**, and J. Cadet. 2002. Development and Application of a Novel Immunoassay for Measuring Oxidative DNA Damage in the Environment. *Photochemistry and Photobiology* 75: 257-265.
- Kelley, C.A., and **W.H. Jeffrey**. 2002. Dissolved methane concentrations profiles and air-sea fluxes from 41° S to 27° N. *Global Biogeochemical Cycles*. 10.1029/2001GB001809.
- Wilhelm, S.W., **W.H. Jeffrey**, and C.A. Suttle, and D.L. Mitchell. 2002. Estimation of Biologically Damaging UV levels in Marine Surface Waters with DNA and Viral Dosimeters. *Photochemistry and Photobiology* 76(3): 268 - 273.
- Buma, A.G.J., P. Boelen and **W.H. Jeffrey**. 2003. UVR-induced DNA damage in aquatic organisms. In: W. Helbling and H. Zagarese (eds.), *Comprehensive series in Photosciences "UV effects in aquatic organisms and ecosystems."* The Royal Society of Chemistry, Cambridge, UK. pp. 291-327
- Wilhelm, S., **W.H. Jeffrey**, A. Dean, J. Meador, and D.L. Mitchell. 2003. Ultraviolet radiation induced DNA damage in marine viruses along a latitudinal gradient. *Aquatic Microbial Ecology* 31: 1-8.
- Simmon, K., D. Steadman, S. Durkin, A. Baldwin, **W.H. Jeffrey**, P. Sheridan, R. Horton and M.S. Shields. 2004. An autoclave method for rapid preparations for bacterial PCR template DNA. *Journal of Microbiological Methods*. 56: 143-149.
- MacFadyen, E.J., C.E. Williamson, G. Grad, M. Lowery, **W.H. Jeffrey**, and D.L. Mitchell. 2004. Molecular Response to Climate Change: Temperature Dependence of UV-induced DNA Damage and Repair in the Freshwater Crustacean *Daphnia pulicaria*. *Global Change Biology* 10: 408-416.
- Arnosti, C., S. Durkin, and **W.H. Jeffrey**. 2005. Patterns of extracellular enzyme activities among pelagic microbial communities: Implications for cycling of dissolved organic carbon. *Aquatic Microbial Ecology* 38: 135-145.

- Mitchell, D.L., and **W.H. Jeffrey**. 2005. Can you really put something where the sun don't shine? *Journal of Irreproducible Results* 49: 6- 10.
- Baldwin, A.J., J.A. Moss, J.D. Pakulski, P. Catala, F. Joux, and **W.H. Jeffrey**. 2005. Microbial diversity in a Pacific Ocean transect from the Arctic to Antarctic circles. *Aquatic Microbial Ecology* 41: 91-102.
- Hoch, M.P., **W.H. Jeffrey**, R.A. Snyder, K. Dillon, and R.B. Coffin. 2006. Expression of glutamine synthetase and glutamate dehydrogenase by marine bacterioplankton: assay optimizations and efficacy for assessing nitrogen to carbon metabolic balance. *Limnology and Oceanography: Methods* 4: 294-307.
- Mioni, C.E., A.J. Baldwin, M.R. Twiss, L. Poorvin, J.D. Pakulski, **W.H. Jeffrey**, and S.W. Wilhelm. 2007. Variability in the *in situ* bioavailability of Fe to bacterioplankton communities in the eastern subtropical Pacific Ocean. *Aquatic Microbial Ecology* 46: 239-251.
- Pakulski, J.D., A. Baldwin, A. Dean, S. Durkin, D. Karentz, C.A. Kelley, K. Scott, H. J. Spero, S. Wilhelm and **W. H. Jeffrey**. 2007. Responses of heterotrophic bacteria to latitudinal variation in solar irradiance. *Aquatic Microbial Ecology* 47:153-162.
- Abboudi, M., **W.H. Jeffrey**, J.-F. Ghiglione, M. Pujo-Pay, L. Oriol, R. Sempéré, B. Charrière, and F. Joux. 2007. Effects of Photochemical Transformations of Dissolved Organic Matter on Bacterial Metabolism and Diversity in Three Contrasting Coastal Sites in the Northwestern Mediterranean Sea. *Microbial Ecology* 55: 344-357.
- Pakulski, J.D., J.A. Meador, J.P. Kase, and **W.H. Jeffrey**. 2008. Effect of stratospheric ozone depletion and enhanced ultraviolet radiation on marine bacteria at Palmer Station, Antarctica in the early austral spring. *Photochemistry and Photobiology* 84: 215-221.
- Meador, J.A., A.J. Baldwin, P. Catala, **W.H. Jeffrey**, F. Joux, J.A. Moss, J.D. Pakulski, R. Stephens, and D.L. Mitchell. 2009. Solar Ultraviolet radiation induced DNA damage in marine microorganisms collected along a latitudinal gradient from 70° N to 68° S. *Photochemistry Photobiology* 85:412-420.
- Neale, P. J., **W. H. Jeffrey**, C. Sobrino, J. D. Pakulski, J. D. Phillips-Kress, A. J. Baldwin, L. A. Franklin, and H. Kim. 2009. Inhibition of Phytoplankton and Bacterial Productivity by Solar Radiation in the Ross Sea Polynya. in M. Lang, S. Miller, and I. Krupnik, editors. Smithsonian at the Poles. Contributions to IPY Science. Smithsonian Press, Washington, D.C. pp. 299-308.
- Joux, F., **W.H. Jeffrey**, M. Abboudi, J. Neveux, M. Pujo-Pay, L. Oriol, and J.-J. Naudin. 2009. Ultraviolet radiation in the Rhône River lenses of low salinity and in marine waters of the northwestern Mediterranean Sea: attenuation and effects on bacterial production and net community production. *Photochemistry Photobiology (In Press)*.
- Valentine, S., J. Cherrier, **W.H. Jeffrey** and J.D. Pakulski. Light Mediated DOM Release by Phytoplankton: Implications for Carbon Cycling. *Marine Ecology Progress Series* (submitted).

Meador, J.A., **W.H. Jeffrey**, T. Douki, J.D. Pakulski, A. J. Baldwin, J. Cadet, D. Johnston, and D.L. Mitchell. A comprehensive comparison of UV induced DNA damage in marine microorganisms. *In preparation*.

Bertoni, R., F. Joux, **W.H. Jeffrey**, P. Conan, M. Pujo-Pay, and L. Oriol. *In situ* susceptibility of phyto and bacterioplankton to UV radiation in NW Mediterranean coastal water: short-term variations and the influence of water column mixing. To be submitted to *Journal of Plankton Research*.

Jeffrey, W.H., P. Aas, M. Booth, R. B. Coffin, R. C. Downer, Jr, S. Holder-Sandvik, L. Hutchinson, J. P. Kase, C.A. Kelley, M.M. Lyons, E. McKee, D. L. Mitchell, J.D. Pakulski, and S. Ripp. Ultraviolet Radiation Induced DNA Damage in the Microbial Community in Antarctic Waters during Ozone Depletion. *In preparation*.

Durkin, S. S.R. Jeffrey, D. Karentz, J. P. Kase, C. Lacavich, L. Norden, J. D. Pakulski, B. Tiffany, M. Voytek, and **W. H. Jeffrey**. Molecular Analysis of Bacterial Community Structure in the Coral Surface Microlayer and Water Column Samples from Key Largo, FL. *In preparation*.

Hullar, M., **W. H. Jeffrey**, and C.M. Cavanaugh. The effects of solar radiation on community structure and activity of tropical freshwater and marine bacterioplankton. *In preparation*.

Hullar, M., **W. H. Jeffrey**, and C.M. Cavanaugh. Light induced changes in microbial community structure and activity along a latitudinal gradient. *In preparation*.

Mitchell, D.L., Meador, J., J.P. Kase, J.D. Pakulski, S. Chiarello, and **W.H. Jeffrey**. Diel profiles of cyclobutane dimers and 8-oxodeoxyguanosine adducts in natural marine plankton communities at Palmer Station, Antarctica. *In preparation*.

Jeffrey, W.H., R.B. Coffin, P. Aas, S. Hager, A. Farrante and R.V. Miller. Induction of *recA* expression in marine bacterioplankton by solar radiation. *In preparation*.

INVITED TALKS AND SEMINARS

Jeffrey, W.H., S.M. Cuskey, R.B. Coffin, and M. Reagin. 1991. The use of lethal bacterial genes to limit survival of intentionally released genetically engineered microorganisms. EPA Biotech. & Risk Assessment All Investigators Meeting and Peer Review. April 12, Washington, D.C.

Jeffrey, W.H. 1993. Development of methods to monitor *in situ* gene expression in aquatic environments. EPA Biotechnology and Risk Assessment All Investigators Meeting and Peer Review. June 16, Duluth, MN.

Jeffrey, W.H., S. Nazaret, and T. Barkay. 1994. Detection of mercuric reductase (*merA*) gene expression in the environment. Amer. Soc. Microbiol. Ann. Meeting, Las Vegas, May 24-27.

Jeffrey, W.H., S. Nazaret, R. Von Haven, and T. Barkay. 1994. Environmental considerations for the expression of novel pathway genes. 7th International Symposium on the genetics of Industrial Microorganisms. June 26 - July 1, Montreal, Canada.

- Jeffrey, W.H.**, D.L. Mitchell, and R.B. Coffin. 1994. Molecular studies of ultraviolet radiation effects on marine bacteria. EPA Biotechnology and Risk Assessment All Investigators Meeting and Peer Review. June 22-24, Baltimore, MD.
- Jeffrey, W.H.**, and D.L. Mitchell. 1995. Ultraviolet radiation induced stress in marine bacterioplankton. EPA Biotechnology and Risk Assessment All Investigators Meeting and Peer Review. June 7-9, Pensacola Beach, FL.
- Jeffrey, W.H.**, R. Pledger, P. Aas, and D.L. Mitchell. 1995. Ambient Solar Radiation Induced Photodamage in Marine Bacterioplankton. American Society for Photobiology Annual Meeting, Washington, DC, June 17-22.
- Jeffrey, W.H.**, and D.L. Mitchell. 1996. Induction of DNA photodamage in marine microbial communities by UV. Amer. Society for Photobiology Annual Meeting, Atlanta, GA. June 16.
- Jeffrey, W.H.**, and D.L. Mitchell. 1996. Induction of DNA photodamage in marine microbial communities by ultraviolet radiation. 12th International Congress on Photobiology, Vienna, Austria. Sept. 1-6.
- Jeffrey, W.H.** 1997. Effects of ultraviolet radiation on marine microbial communities. Department of Marine Science, University of Georgia, Athens, GA. Jan. 22.
- Jeffrey, W.H.** 1997. Change the world? We already have. Considerations on Global climate change. University Spring Honors Symposium, Univ. West Florida, Pensacola, FL. March 12.
- Jeffrey, W.H.** 1997. Induction of DNA photodamage by ultraviolet radiation in marine microbial communities and impacts on bacterial production. Department of Biology, Virginia Tech, Blacksburg, VA. March 20.
- Jeffrey, W.H.** 1997. Ecological implications of ultraviolet radiation induced DNA damage in marine microbial communities. Dept. of Biology, Univ. West Florida, Pensacola, FL April 8.
- Jeffrey, W.H.** 1997. Effects of ultraviolet radiation on microbial communities: Molecular and physiological approaches. Pocono Comparative Lakes Program Annual Meeting, Keynote address. Lehigh University, Bethlehem, PA Oct. 17.
- Jeffrey, W.H.** 1997. Molecular and physiological effects of ultraviolet radiation on marine microbial communities. Department of Microbiology, Oklahoma State University. Stillwater, OK Nov. 20.
- Jeffrey, W.H.** 1998. Molecular and physiological effects of ultraviolet radiation on marine microbial communities. Dauphin Island Sea Lab, Univ. of Alabama, Dauphin Island, AL Jan. 22.
- Jeffrey, W.H.** 1998. Ozone depletion and global climate change. Science Seminar for Superior Students. University of West Florida, Pensacola, FL. February 19.
- Jeffrey, W.H.** 1998. Environmental regulation: Honorable ideas, difficult decisions. University Spring Honors Symposium, Univ. of West FL, Pensacola, FL. February 25.

- Jeffrey, W.H.** 1998. Ultraviolet radiation effects on bacteria. American Society for Microbiology Annual Meeting, Atlanta, GA. May 17-21.
- Jeffrey, W.H.** 1999. Ecological impacts of ultraviolet radiation on marine bacterioplankton. Rutgers University, New Brunswick, NJ. April 8.
- Jeffrey, W.H.** 1999. Molecular analysis of Ozone depletion and UVB effects in the marine environment. Gordon Research Conference, Applied and Environmental Microbiology. New London, CT July 3-8.
- Jeffrey, W.H.** 1999. The effects of ozone depletion and ultraviolet radiation on marine bacterioplankton. University of Tennessee, Knoxville, TN. Nov. 8.
- Jeffrey, W.H.** 2000. Molecular approaches to the study ultraviolet radiation effects on marine ecosystems. Department of Marine Science, Univ. of North Carolina, Chapel Hill, NC. March 23.
- Jeffrey, W.H.** 2000. Molecular approaches to the study ultraviolet radiation effects on marine ecosystems. Institute of Marine Science, Univ. of North Carolina, Morehead City, NC. March 24.
- Jeffrey, W.H.** 2000. Antarctica, ozone depletion, and ultraviolet radiation; why we should care in Pensacola. Department of Biology, University of West Florida, Pensacola, FL. April 14.
- Jeffrey, W.H.** 2000. Microbial community response to UVR. Pocono Comparative Lakes Program Annual Meeting, Lehigh University, Bethlehem, PA. Oct 14.
- Jeffrey, W.H.** 2000. Microbial community response to ultraviolet radiation in marine environments. College of Marine Studies, University of Delaware, Lewes, DE. Nov. 14.
- Jeffrey, W.H.** 2001. Ultraviolet Radiation Effects On Marine Bacterioplankton: DNA Damage and Changes in Community Structure and Function. US EPA EMAP Symposium 2001: Coastal Monitoring through Partnerships. Pensacola Beach, FL. April 25.
- Jeffrey, W.H.** 2001. Variations in microbial community response to ultraviolet radiation. Dauphin Island Sea Lab, Univ. of Alabama, Dauphin Island, AL. Aug. 7.
- Jeffrey, W.H.** 2001. Ozone Depletion and Ultraviolet radiation: From Antarctica to Pensacola. University of West Florida, Pensacola, FL. Sept. 28.
- Jeffrey, W.H.** 2002. Spatial and temporal variation in bacterioplankton response to ultraviolet radiation. Annual Meeting Amer. Soc. for Photobiology, Quebec City, Canada. July 13-17.
- Jeffrey, W.H.** 2002. Ultraviolet Radiation and Iron: What's TABASCO got to do with it? University of West Florida, Pensacola, FL. Sept. 16.
- Jeffrey, W.H.** 2003. Ultraviolet radiation effects on marine bacteria. University of California – Irvine, Irvine, CA. January 17.

Jeffrey, W.H. 2003. Molecular and physiological effects of ultraviolet radiation on marine bacterioplankton. Florida A & M University, Tallahassee, FL. February 7.

Jeffrey, W.H. 2003. Molecular and physiological effects of ultraviolet radiation on marine bacterioplankton. University of North Carolina at Wilmington, February 20.

Jeffrey, W.H. 2003. The power of partnerships between scientists and educators for promoting ocean science in Florida. Florida Center for Ocean Science Education Excellence (FCOSSEE) Florida Community Building Workshop, Tallahassee. FL. May 17.

Jeffrey, W.H. 2003. Molecular and physiological effects of ultraviolet radiation on marine bacterioplankton. Université Pierre et Marie Curie (Paris VI), Observatoire Océanologique. Banyuls-sur-Mer, France. June 6.

Jeffrey, W.H. 2003. Molecular and physiological effects of ultraviolet radiation on marine bacterioplankton. Annual Meeting Amer. Society for Photobiology, Baltimore, MD. July 5-9.

Jeffrey, W.H. 2003. Photographer Frank Hurley and The Endurance Expedition to Antarctica. Pensacola Junior College, Pensacola, FL. September 11.

Jeffrey, W.H. 2004. Spatial variation in ultraviolet radiation effects on marine bacterioplankton. University of West Florida. January 30.

Jeffrey, W.H. 2004. Photographer Frank Hurley and The Endurance Expedition to Antarctica: Extreme Photography and Historical Documentation. Pensacola Junior College, Pensacola, FL. September 9.

Jeffrey, W.H. 2005. Ozone depletion, ultraviolet radiation, icebergs, whales, penguins, and bacteria: This must be Antarctica. University of West Florida, April 1.

Jeffrey, W.H., and A.J. Baldwin. 2005. From the Arctic to Antarctic Circles: Are there patterns in Microbial Processes in the Pacific Ocean? Université Pierre et Marie Curie (Paris VI), Observatoire Océanologique. Banyuls-sur-Mer, France. June 16.

Jeffrey, W.H. 2005. Photographer Frank Hurley and The Endurance Expedition to Antarctica: Extreme Photography and Historical Documentation. Pensacola Junior College, Pensacola, FL. September 15.

Jeffrey, W.H. 2005. Spatial Patterns of Microbial process in the Pacific Ocean: from the Arctic to Antarctic Circles. Dauphin Island Sea Lab, Univ. of Alabama, Dauphin Island, AL. Sept. 29.

Jeffrey, W.H. 2006. March of the Pensacolians: UWF's Antarctic Research Program. University of West Florida, Pensacola, FL. March 3.

Jeffrey, W.H. 2006. From Pensacola to Penguins. The Lacawac Sanctuary. Lake Ariel, PA. June 24.

- Jeffrey, W.H.** 2006. Frank Hurley and The Endurance Expedition to Antarctica: Extreme Photography and Historical Documentation. Pensacola Junior College, Pensacola, FL. Sept. 14.
- Jeffrey, W.H.** 2007. The Effects of Ozone Depletion on Bacterioplankton in Antarctic Waters. The University of West Florida, Pensacola, FL Sept. 7
- Jeffrey, W.H.** 2007. Climate change from an oceanographer's perspective. Special Projects in Liberal Arts, Sciences and Humanities (SPLASH! Downtown) Lecture Series. University of West Florida, Pensacola, FL. October 23.
- Jeffrey, W.H.** 2008. An oceanographer's thoughts on climate change. American Chemical Society, Pensacola Chapter. Pensacola, FL. January 24.
- Jeffrey, W.H.** 2008. Climate Change 101: Facts, Fantasies, and Solutions? Leisure Learning Lectures. University of West Florida, Pensacola, FL. February 7.
- Jeffrey, W.H.** 2008. Ultraviolet radiation effects on microbial communities in Pocono Mountain Lakes. University of West Florida, Pensacola, FL. March 28.
- Jeffrey, W.H.** 2008. Climate Change 101: Facts, Fantasies, and Solutions? Earth Day Symposium. University of West Florida. April 22.
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ABSTRACTS

- Jeffrey, W.H.**, and J.H. Paul. 1984. Thymidine incorporation as a measure of the activity of a marine *Vibrio* attached to polystyrene. American Geophysical Union Ocean Sciences Meeting, New Orleans, LA. January 23-27.
- Paul, J.H., and **W.H. Jeffrey**. 1984. Use of photon correlation spectroscopy for sizing estuarine isolates and particulates in seawater. American Geophysical Union Ocean Sciences Meeting, New Orleans, LA. January 23-27.
- Jeffrey, W.H.**, and J.H. Paul. 1984. Differential DNA synthesis rates of attached and free-living bacteria. Marine Science Department 5th Annual Graduate Student Symposium. University of South Florida, St. Petersburg, FL. April 5-6.
- Jeffrey, W.H.**, and J.H. Paul. 1984. The use of ³H-thymidine incorporation for measuring the activity of attached and free living marine bacteria. American Society for Microbiology South East Branch Meeting, Clearwater, FL. October 25-27.
- Paul, J.H., **W.H. Jeffrey**, and M.F. DeFlaun. 1984. Significance of bacterioplankton in oceanic DNA measurements. American Society for Microbiology South East Branch Meeting, Clearwater, FL. October 25-27.
- Paul, J.H., and **W.H. Jeffrey**. 1984. Evidence for separate adhesion mechanisms for hydrophobic and hydrophilic substrata in *Vibrio proteolytica*. American Society for Microbiology South East Branch Meeting, Clearwater, FL. October 25-27.

- DeFlaun, M.F., D. Davis, J.H. Paul, and **W.H. Jeffrey**. 1984. Dissolved DNA in the marine environment: A preliminary study. Amer. Soc. Microb. South East Branch Meeting, Clearwater, FL. October 25-27.
- Jeffrey, W.H.**, and J.H. Paul. 1985. The effect of attachment to polystyrene on the activity of marine microfouling bacteria. Amer. Soc. Microb. Ann. Mtg., Las Vegas, Nevada. March 3-7.
- Paul, J.H., **W.H. Jeffrey**, and M.F. DeFlaun. 1985. Significance of bacterioplankton in oceanic DNA measurements. Amer. Soc. Microb. Ann. Meeting, Las Vegas, Nevada. March 3-7.
- DeFlaun, M.F., J.H. Paul, D. Davis, and **W.H. Jeffrey**. 1985. Dissolved DNA in the marine environment: a preliminary study. American Society for Microbiology Annual Meeting., Las Vegas, NV. March 3-7.
- Jeffrey, W.H.**, and J.H. Paul. 1985. The activity of marine microfouling bacteria as determined by ^3H -thymidine incorporation, INT reduction, and ATP/DNA ratios. American Society for Microbiology Annual Meeting, Florida Branch, Orlando, FL. December 6-7.
- DeFlaun, M.F., J.H. Paul, and **W.H. Jeffrey**. 1985. Distribution of dissolved DNA in aquatic environments. Amer. Soc. Microbiol. Ann. Mtg., Florida Branch, Orlando, FL. December 6-7.
- Paul, J.H., M.F. DeFlaun, **W.H. Jeffrey**, and D. Davis. 1986. The dynamics of dissolved DNA in aquatic environments. American Geophysical Union Ocean Sciences Meeting, New Orleans, LA. January 13-17.
- Jeffrey, W.H.**, and J.H. Paul. 1986. The use of a thymidylate synthase inhibitor to block de novo synthesis during ^3H -thymidine incorporation in estuarine waters. American Society for Microbiology Annual Meeting, Washington, DC. March 23-28.
- DeFlaun, M.F., J.H. Paul, and **W.H. Jeffrey**. 1986. Dissolved DNA in the coral reef environment: relation to microbial biomass and activity parameters. American Society for Microbiology Annual Meeting, Washington, DC. March 23-28.
- Paul, J.H., M.F. DeFlaun, and **W.H. Jeffrey**. 1986. Dissolved DNA in estuarine environments: rate of turnover and possible sources. American Society for Microbiology Annual Meeting, Washington, DC. March 23-28.
- Jeffrey, W.H.** 1986. The effects of fluorodeoxyuridine on ^3H -thymidine incorporation in estuarine bacteria. Marine Science Department 7th Annual Graduate Student Symposium, University of South Florida, St. Petersburg, FL. April 11.
- Jeffrey, W.H.**, and J.H. Paul. 1987. Factors affecting non-specific labeling by ^3H -thymidine in marine bacteria. Amer. Society for Microbiology Annual Meeting, Atlanta, GA. March 1-6.
- Jeffrey, W.H.**, and J.H. Paul. 1987. Non-specific labeling of macromolecules from incubation with ^3H -thymidine. Department of Marine Science 8th Annual Graduate Student Symposium, University of South Florida, St. Petersburg, FL. April 10.

- Jeffrey, W.H.**, J.H. Paul, and G.J. Stewart. 1988. Evidence for bacterial transformation in marine and freshwater environments. Amer. Geophys. Union, New Orleans, LA. January 18-22.
- Jeffrey, W.H.** 1988. The use of ³H-thymidine incorporation to detect natural transformation in aquatic environments. Department of Marine Science 9th Annual Graduate Student Symposium, University of South Florida, St. Petersburg, FL. April 8.
- Jeffrey, W.H.**, and J.H. Paul. 1988. A direct comparison of ³H-thymidine incorporation with DNA synthesis in aquatic environments. American Society for Microbiology. Ann. Meeting, Miami Beach, May 8-13.
- Paul, J.H., **W.H. Jeffrey**, and M.F. DeFlaun. 1988. The cycling of extracellular DNA in the rivers of southwest Florida. Amer. Soc. for Microb. Annual Mtg., Miami Beach, FL. May 8-13.
- Jeffrey, W.H.**, and J.H. Paul. 1989. Thymidine kinase activity, thymidine transport and incorporation into DNA in marine bacteria. American Society for Microbiology Annual Meeting, New Orleans, LA. May 14-18.
- Jeffrey, W.H.**, J.H. Paul, and G.J. Stewart. 1989. Natural plasmid transformation of *Vibrio parahaemolyticus* in estuarine sediment microcosms. Amer. Soc. for Microbiol. Annual Meeting, New Orleans, LA. May 14-18.
- Jeffrey, W.H.**, P.J. Chapman, R.H. Olsen, and S.M. Cuskey. 1989. Biochemical and genetic analysis of *Pseudomonas putida* mutants deficient in chromosomally encoded benzoate catabolism. Amer. Soc. for Microbiology Pseudomonas '89 Meeting, Chicago, IL. July 9-13.
- Jeffrey, W.H.**, and J.H. Paul. 1990. Correlation of non-specific labeling with environmental parameters during ³H-thymidine incorporation in the waters of southwest Florida. American Geophysical Union Ocean Sciences Meeting, New Orleans, LA. February 12-16.
- Paul, J.H., L.H. Cazares, A.W. David, M.F. DeFlaun, **W.H. Jeffrey**, S.L. Pichard, and J.M. Thurmond. 1990. Ecological and genetic significance of extracellular DNA in marine and freshwater environments. European Environmental Research Organization Workshop, Molecular Microbial Ecology, Braunschweig, Federal Republic of Germany. April 28-May 1.
- Jeffrey, W.H.**, S.M. Cuskey, P.J. Chapman, and R.H. Olsen. 1990. Biochemical and genetic analysis of *Pseudomonas putida* mutants deficient in chromosomally encoded benzoate catabolism. Suncoast Biotech Conference, St. Petersburg, FL. March 29-30.
- Cuskey, S.M., M. Reagin, **W.H. Jeffrey**, and R.B. Coffin. 1990. Conditional expression of the RK2 *kilA* gene in *Pseudomonas aeruginosa* PAO1 can cause a non-lethal inhibition of growth. Amer. Society for Microbiology Annual Meeting, Anaheim, CA. May 13-17.
- Jeffrey, W.H.**, S.M. Cuskey, P.J. Chapman, and R.H. Olsen. 1990. Isolation of a *Pseudomonas* chromosomal DNA fragment able to substitute for TOL plasmid *xyIS* regulatory gene. Amer. Soc. for Microbiol. Annual Meeting, Anaheim, CA. May 13-17.

- Jeffrey, W.H.**, S.M. Cuskey, R.B. Coffin, and M. Reagin. 1991. The use of lethal bacterial genes to limit survival of intentionally released genetically engineered microorganisms. US EPA Risk Assessment All Investigators Meeting. Washington, DC. April 9-11.
- Jeffrey, W.H.** 1991. Expression of *Pseudomonas* genes encoding for benzoate catabolism may be regulated by both *benR* and *xyfS*. American Society for Microbiology. Annual Meeting, Dallas, TX. May 5-9.
- Jeffrey, W.H.**, R.B. Coffin, and S.M. Cuskey. 1991. Effect of RK2 *kiA* expression on growth of *Pseudomonas aeruginosa* PAO1. American Society for Microbiology Annual Meeting, Dallas, TX. May 5-9.
- Santavy, D.L., **W.H. Jeffrey**, R.A. Snyder, J. Campbell, P. Malouin, and L. Cole. 1992. Microbial community dynamics in the mucus of healthy and stressed coral hosts. 1992 Symposium on the Florida Keys Regional Ecosystem, Miami, FL. November 16-20.
- Ammerman, J.W., E.R. Peele, E. Bentzen, J.S. Kim, M.J.D. MacRae, R.H. Sada Ruvalcaba, K. Elardo, and **W.H. Jeffrey**. Microbial phosphorous cycling at the Bermuda Time-Series Station (BATS). 1993. Third Scientific Meeting of the Oceanography Society, Seattle, WA. April 13-16.
- Jeffrey, W.H.**, S. Nazaret, and R. Von Haven. 1993. Improved method for the extraction of mRNA from aquatic samples: application to detecting *mer* gene expression. Amer. Society for Microbiology Annual Meeting, Atlanta, GA. May 16-20.
- Nazaret, S., **W.H. Jeffrey**, R. VonHaven, E. Saouter, and T. Barkay. 1993. *Mer* gene expression in aquatic environments. American Society for Microbiology Annual Meeting, Atlanta, GA. May 16-20.
- Santavy, D.L., **W.H. Jeffrey**, and R.A. Snyder. 1993. Changes in microbial community structure and productivity affiliated with the mucus of healthy and stressed corals. Amer. Soc. for Microbiology Annual Meeting, Atlanta, GA. May 16-20.
- Ferrante, A.A., R.B. Coffin, and **W.H. Jeffrey**, and R.V. Miller. 1993. RecA Protein expression in marine environments. American Society for Microbiology Annual Meeting, Atlanta, GA. May 16-20.
- Coffin, R.B., **W.H. Jeffrey**, A.A. Ferrante, and R.V. Miller. 1993. Marine bacterial expression of the RecA gene in response to UV light. Amer. Soc. of Limnology & Oceanography and Society of Wetland Scientists Annual Meeting, Edmonton, Alberta, Canada, May 30-June 3.
- Jeffrey, W.H.**, R. Von Haven, and R.B. Coffin. 1994. Fluorometric Determination of Bacterioplankton RNA:DNA Ratios and Comparison to Rates of Thymidine and Leucine Incorporation. American Society of Limnology and Oceanography Ocean Sciences Mtg., San Diego, CA. Feb. 21-25.
- Ammerman, J.W., M.J.D. McRae, E. Bentzen, E.R. Peele, J.B. Cottner, and **W.H. Jeffrey**. 1994. Phosphorous cycling at the Bermuda Time-Series Station: An Overview. Amer. Soc. of Limnology and Oceanography Ocean Sciences Meeting, San Diego, CA. February 21-25.

- Jeffrey, W.H.** 1994. Environmental considerations for the expression of novel pathway genes. 7th International Symposium on the Genetics of Industrial Microorganisms (GIM '94), Montreal, CN. June 26 - July 1.
- Miller, R.V., **W.H. Jeffrey**, David L. Mitchell, A. Ferrante, M. Hamissou, and R.B. Coffin. 1994. Assessing bacterial RecA activity as a biomarker for environmental DNA-damaging stress. Fallen Leaf Lake Conference on Microbial Ecology and Biological Control. South Lake Tahoe, CA. Sept. 15 - 18.
- Pledger, R., **W.H. Jeffrey**, and D.L. Mitchell. 1994. UVB effects on marine ecosystems: temporal and spatial distribution of UV photodamage in microplankton. Lost Pines Molecular Biology Conference, Smithville, TX. Oct. 21 - 23.
- Jeffrey, W.H.** 1994. Molecular studies of DNA damage in marine bacterioplankton caused by solar ultraviolet radiation. University of South Florida Department of Marine Science Alumni Research Symposium. St. Petersburg, FL. October 27.
- Pledger, R., **W.H. Jeffrey**, A. Mican, and D.L. Mitchell. 1995. Radioimmunoassay as a sensitive tool for measuring specific genotoxic damage in environmental samples. Annual meeting of the Environmental Mutagen Society, St. Louis, MO
- Hoch, M.P., L.A. Cifuentes, **W.H. Jeffrey**, and R.B. Coffin. 1995. Activities of ammonia assimilation enzymes as indicators of the relative supply of nitrogen substrates for marine bacterioplankton in sub-tropical coastal water. International Workshop on Aquatic Microbial Ecology; Konstanz, Germany. April 17-22.
- Hager, S., **W.H. Jeffrey**, D.L. Mitchell, R. Pledger, P. Aas, and G.J. Herndl. 1995. UV-B mediated photodamage of DNA in marine bacterioplankton. International Workshop on Aquatic Microbial Ecology; Konstanz, Germany. April 17-22.
- Jeffrey, W.H.**, D.L. Mitchell, R. Pledger, and P. Aas. 1995. Ultraviolet Radiation-B Induced Photodamage in Bacterioplankton in the Gulf of Mexico. Annual Meeting of the American Society for Microbiology, Washington, DC, May 21-25.
- Jeffrey, W.H.**, R. Pledger, P. Aas, S. Hager, R. B. Coffin, and D. L. Mitchell. 1995. Diel And Depth Profiles of DNA Photodamage In Bacterioplankton Exposed To Ambient Solar Ultraviolet Radiation. Amer. Soc. Limnol. Oceanogr Annual Mtg., Reno, NV. June 11 - 15.
- Aas, P. and **W.H. Jeffrey**. 1995. Influence Of Ambient Solar Ultraviolet Radiation On Bacterial Productivity In The Northern Gulf Of Mexico. American Society for Limnology and Oceanography Annual Meeting, Reno, NV. June 11 - 15.
- Miller, R.V., M. Hamissou, **W.H. Jeffrey**, D.L. Mitchell, and R.B. Coffin. 1995. Correlation of fluctuations in bacterial RecA activity with exposure to DNA-damaging stress in aquatic environments. Amer. Soc. for Limnol. Oceanogr., Annual Meeting, Reno, NV. June 11 - 15.
- Jeffrey, W.H.**, P. Aas, R. Pledger, S. Hager, R. B. Coffin, and D. L. Mitchell. 1995. Ambient Solar Radiation Induced Photodamage In Marine Bacterioplankton. Annual Meeting of the American Society for Photobiology. Washington, DC. June 17 - 22.

- Wilhelm, S.W., M.G. Weinbauer, D.R. Garza, K.M. Rodda, **W.H. Jeffrey**, and C.A. Suttle. 1996. *In situ* light mediated destruction and repair of viruses in the Gulf of Mexico. American Geophysical Union Ocean Sciences Mtg., San Diego CA, February 12-16. Eos 76(3, suppl) 208.
- Jeffrey, W.H.**, M.M. Lyons, P. Aas, R.B. Coffin, and D.L. Mitchell. 1996. Depth Profiles of Ultraviolet Radiation Induced DNA Damage in the Microbial Community in Antarctic Waters. Annual Meeting of the Amer. Society for Microbiology, New Orleans, May 16-20.
- Aas, P., **W.H. Jeffrey**, J.D. Pakulski and R.B. Coffin. 1996. Inhibition of Thymidine Incorporation by Bacterioplankton as a Function of Ambient Ultraviolet Radiation During Austral Spring in the Gerlache Strait, Antarctica.. Amer. Society for Microbiology Ann. Mtg., New Orleans, May 16-20.
- Lyons, M.M., P. Aas, J.D. Pakulski, L. Van Waasbergen, D.L. Mitchell, and **W.H. Jeffrey**. 1996. Detection of Ultraviolet Radiation Induced DNA Damage in a Coral Reef Microbial Community. Annual Meeting of the Amer. Soc. for Microbiology, New Orleans, May 16-20.
- Jeffrey, W.H.**, and D.L. Mitchell. 1996. Induction of DNA photodamage in marine microbial communities by UV. American Society for Photobiology Annual Meeting, Atlanta, GA. June 16.
- Jeffrey, W.H.**, P. Aas, M. M. Lyons, R.B. Coffin, J.D. Pakulski, US EPA, and D.L. Mitchell. 1997. Ultraviolet Radiation Induced DNA Damage in the Microbial Community in Antarctic Waters. Amer. Soc. Limnol. Oceanogr. Aquatic Sciences Meeting, Santa Fe, February 10-14.
- Aas, P., **W.H. Jeffrey**, J.D. Pakulski, and R.B. Coffin. 1997. Inhibition of Bacterioplankton Production by Solar Ultraviolet Radiation in Antarctic Surface Waters. Amer. Soc. Limnol. Oceanogr. Aquatic Sciences Meeting, Santa Fe, February 10-14.
- Murray, A., C.M. Preston, A. Blakis, R. Massana, K.Y. Wu, **W.H. Jeffrey**, and E. DeLong. 1997. Spatial and temporal variation in the picoplankton: examples from temperate and polar ecosystems. American Society of Limnology and Oceanography. Aquatic Sciences Meeting, Santa Fe, February 10-14.
- Pakulski, J.D., R. Coffin, P. Aas, M. M. Lyons, **W.H. Jeffrey**, L. VanWaasbergen, and D.L. Mitchell. 1997. Influence of light on bacterioplankton production and respiration in a subtropical reef. American Society of Limnology and Oceanography. Aquatic Sciences Meeting, Santa Fe, February 10-14.
- Kase, J. **W.H. Jeffrey**, J.D. Pakulski, and S. Ripp. 1998. Effect of ultraviolet radiation and ozone depletion on thymidine and leucine incorporation in antarctic surface waters. American Geophysical Union/American Society for Limnology and Oceanography Ocean Sciences Mtg., San Diego CA, February 9-13.
- Kase, J., **W.H. Jeffrey**, S. Ripp, J.D. Pakulski, and D.L. Mitchell. 1998. DNA Damage and Inhibition of Bacterial Production Due to Ultraviolet Radiation in Marine Surface Waters. Annual Meeting American Society for Microbiology, Atlanta, GA. May 17-21.

- Joux, F., P. Lebaron, and **W. H. Jeffrey**. 1998. Diversity of Responses Among Marine Bacteria During UV-B Exposure and Subsequent Recovery. Annual Meeting American Society for Microbiology, Atlanta, GA. May 17-21.
- W.H. Jeffrey**. 1998. Ultraviolet Effects on Bacteria. Annual Meeting American Society for Microbiology, Atlanta, GA. May 17-21.
- Kelley, C.A. P. Aas, R. B. Coffin, R. C. Downer Jr., **W. H. Jeffrey**, M. M. Lyons, J.D. Pakulski, and S. Holder Sandvik. 1998. Carbon Dynamics In Antarctic Waters During Late Austral Winter/Early Spring- Gerlache Strait. American Society of Limnology and Oceanography Summer Meeting. St. Louis, MO. June 7-12.
- Wilhelm, S.W., **W.H. Jeffrey**, C.A. Suttle, and D.L. Mitchell. 1998. Decay rates in situ of marine viral infectivity and its relationship to pyrimidine dimer formation in calf thymus DNA: an argument for the use of viruses as dosimeters for the exposure of aquatic communities to biologically damaging radiation. Eighth International Symposium on Microbial Ecology Mtg., Halifax, Nova Scotia. Aug 9-14.
- Hout, Y., J.J. Cullen, and **W.H. Jeffrey**. 1999. A Model For DNA Damage And Repair In Bacterioplankton As Influenced By Vertical Mixing. Amer. Soc. Limnol. Oceanogr. Aquatic Sciences Meeting, Santa Fe, February 1-5.
- Peloquin, J.A., P.J. Neale, **W.H. Jeffrey**, and J. Kase. 1999. Spectral Dependence of Ultraviolet Radiation on Bacterioplankton: An Experimental Approach. American Society for Photobiology Annual Meeting. Washington, D.C. July 10-15.
- Zhu, Yi , K. Mopper, D. Kieber, **W. H. Jeffrey**, J. Kase, P. Neale, J. Fritz, and R. Davis. 2000. Effect of Elevated Levels of Photochemically Produced Hydroxyl Radicals and Hydrogen Peroxide on Bacterial and Primary Productivities in Antarctic Surface Water. American Geophysical Union/ Amer. Society for Limnology and Oceanography Ocean Sciences Mtg., San Antonio, TX. January 24-28.
- Peloquin, J.A., P.J. Neale, **W. H. Jeffrey**, and J.P. Kase. 2000. Spectral Dependence of Ultraviolet Radiation on Bacterioplankton: An Experimental Approach. American Geophysical Union/American Society for Limnology and Oceanography Ocean Sciences Mtg., San Antonio, TX. January 24-28.
- Ahrens, S., J. Kase, **W.H. Jeffrey**, and M. Voytek. 2000. Changes in marine microbial community structure induced by solar radiation. American Geophysical Union/Amer. Soc. for Limnology and Oceanography Ocean Sciences Mtg., San Antonio, TX. January 24-28.
- Kase, J.P., and **W.H. Jeffrey**. 2000. Solar radiation effects on bacterial production in the southern ocean. American Geophysical Union/American Society for Limnology and Oceanography Ocean Sciences Mtg., San Antonio, TX. January 24-28.
- Meador, J., **W. Jeffrey**, and D.L. Mitchell. 2000. Isolation and photobiological characterization of marine bacteria from Palmer Station, Antarctica." 13th International Congress on Photobiology, San Francisco, California, July 1-6.

Meador, J., **W.H. Jeffrey**, and D.L. Mitchell., 2000. Seasonal Fluctuation of DNA Photodamage in Bacterioplankton and Phytoplankton at Palmer Station, Antarctica”, presented at the University of Texas-Houston graduate student research poster session.

Meador, J., **W. Jeffrey**, and D.L. Mitchell. 2000. Effects of UV-A and UV-B radiation on bacterioplankton and phytoplankton from Palmer Station, Antarctica. 16th Annual Lost Pines Conference, Smithville, Texas October 13-15.

Pakulski, J.D., , A. Baldwin, A. Dean, S. Durkin, D. Karentz, C.A. Kelley, and K. Scott, S. Wilhelm, and **W.H.Jeffrey**. 2001. “Translatitudinal Assessment of Biological Acclimation to Solar Conditions in the Oceans (TABASCO).” American Geophysical Union/American Soc. Limnol. and Oceanography Ocean Sciences Mtg., Albuquerque, NM. February 12-16.

Jeffrey, W.H., J. Kase, S. Durkin, and J. D. Pakulski, and K. Scott. 2001. Spatial and seasonal variations in marine microbial community response to ultraviolet radiation near Palmer Station, Antarctica. American Geophysical Union/American Society for Limnol. and Oceanography Ocean Sciences Mtg., Albuquerque, NM. February 12-16.

Huot, Y., Peloquin, J.A., P.J. Neale, **W.H.Jeffrey**, and J. Cullen. 2001. “Comparison of the effects of UV on bacterial and phytoplankton production using a modeling approach based on measured biological weighting functions.” American Geophysical Union/American Society for Limnology and Oceanography Ocean Sciences Mtg., Albuquerque, NM. February 12-16.

Meador, J., **W.H. Jeffrey**, S. Chiarello¹, and D.L. Mitchell. 2001. The Spectrum of Photoproducts Induced in DNA by Sunlight Mirrors the Relative Proportion of Ultraviolet A and B Radiation. American Geophysical Union/American Society for Limnol. and Oceanography Ocean Sciences Mtg., Albuquerque, NM. February 12-16.

Meador, J., **W.H. Jeffrey**, J.P. Kase, J.D. Pakulski, S. Chiarello, and D.L. Mitchell. 2001. Measurement of Ultraviolet Radiation Induced Cyclobutyl Pyrimidine Dimers and 8-hydroxydeoxyguanosine (8-oxodGuo) in Bacterioplankton and Phytoplankton from Palmer Station, Antarctica (64° latitude, 64° longitude). The University of Texas-Houston Graduate Student Research Poster Session, Houston.

Jeffrey, W.H., J. D. Pakulski, J. Kase, K. Scott, and S. Durkin. 2001. Seasonal and spatial reponse to ultraviolet radiation in marine bacterioplankton. Annual Meeting of the American Society for Microbiology, Orlando, FL. May 20 - 24.

Hullar, M.A.J., **W. H. Jeffrey**, and C. M. Cavanaugh. 2001. The Impacts of Light on Bacterial Productivity and Community Structure in Aquatic Systems. Annual Meeting of the American Society for Microbiology, Orlando, FL. May 20 - 24.

Arnosti, C., and **W.H. Jeffrey**. 2001. Patterns of extracellular enzyme activity among pelagic microbial communities. International Society for Microbial Ecology Symposium-9. Amsterdam, The Netherlands. Aug. 26-31.

- Jeffrey, W.H.**, J. P. Kase, J. D. Pakulski, S. Durkin, J. Meador, D. L. Mitchell, K. Brown, and R. V. Miller. 2001. Response to Ultraviolet Radiation by Bacterioplankton During Spring Ozone Depletion and Summer Seasons at Palmer Station, Antarctica. VIII SCAR International Biology Symposium. Amsterdam, The Netherlands. Aug. 27-Sept. 1.
- Jeffrey, W.H.**, A. Dean, D. L. Mitchell, J. Meador, and S. Wilhelm. 2002. Ultraviolet Radiation Induced DNA Damage in Marine Viruses Along a Latitudinal Gradient. American Geophysical Union/American Society for Limnology and Oceanography Ocean Sciences Mtg., Honolulu, HI. February 11-15.
- Jeffrey, W.H.**, J.D. Pakulski, J.P. Kase, and S. Durkin. 2002. The Role of Community Structure in Determining Bacterioplankton Response to Ultraviolet Radiation. American Society for Limnology and Oceanography Summer Meeting, Vancouver, BC. June 10-14.
- Jeffrey, W.H.** 2002. Spatial and temporal variation in bacterioplankton response to ultraviolet radiation. Annual Meeting Amer. Soc. for Photobiology, Quebec City, Canada. July 13-17.
- Meador, J., **W.H. Jeffrey**, and D.L. Mitchell, 2002. The Measurement of Ultraviolet Radiation Induced DNA Damage in Dosimeters Along a Latitudinal Gradient. Annual Meeting American Society for Photobiology, Quebec City, Canada. July 13-17.
- Pakulski, J.D., A. Baldwin, J. Lempa, P.J. Neale, **W.H. Jeffrey**. 2003. Response of Heterotrophic Bacteria to Ultraviolet Radiation in the Gulf of Mexico. American Society for Limnology and Oceanography Meeting, Salt Lake City, UT. February 9-14.
- Jeffrey, W.H.**, J.P. Kase, and J.D. Pakulski. 2003. The Effects of Temperature, Nutrients and Growth Rate on the Response to Ultraviolet Radiation by Marine Bacterioplankton. Amer. Society for Limnology and Oceanography Meeting, Salt Lake City, UT. February 9-14.
- Baldwin, A.J., L.Paniker, **W.H. Jeffrey**, and D.L. Mitchell. 2003. Bacterial survival and diversity in greenland ice. American Society for Limnology and Oceanography Meeting, Salt Lake City, UT. February 9-14.
- Arnosti, C., S. Durkin, and **W.H. Jeffrey**. 2003. Assessing the functional diversity of microbial extracellular enzymes: Evidence for geographic patterns and implications for DOC cycling. Amer. Society for Limnology and Oceanography Mtg., Salt Lake City, UT. February 9-14.
- Neale, P.J., J. Lempa, E.P.Y. Tang, J.D. Pakulski, A. Baldwin, and **W.H. Jeffrey**. 2003. UV inhibition of bacterioplankton production along a spatial gradient of transparency in the Gulf of Mexico. American Society for Limnology and Oceanography Meeting, Salt Lake City, UT. February 9-14.
- Meador, J. **W.H. Jeffrey**, J.D. Pakulski, A.J. Baldwin, and D.L. Mitchell,. 2003. The Measurement of Ultraviolet Radiation Induced DNA Damage in Marine Microorganisms Along a Latitudinal Gradient. Annual Meeting of the Texas Genetics Society, Austin.
- Jeffrey, W.H.** 2003. Molecular and physiological effects of ultraviolet radiation on marine bacterioplankton. Annual Meeting Amer. Society for Photobiology, Baltimore, MD. July 5-9.

- Meador, J. **W.H. Jeffrey**, and D.L. Mitchell,. 2003. Characterization of diverse photobiological responses of marine bacterioplankton. Annual Meeting American Society for Photobiology, Baltimore, MD. July 5-9.
- Jeffrey, W.H.**, J.D. Meador, J.D. Pakulski, T.A. Douki, A.J. Baldwin, and D.L. Mitchell. 2004. Solar induced DNA photoproducts across a latitudinal gradient in the eastern Pacific ocean. Amer. Society for Limnology and Oceanography Meeting, Honolulu, HI. February 15-20.
- Baldwin, A.J., J.D. Pakulski, and **W.H. Jeffrey**. 2004. Effects of prolonged solar exposure on bacterial response to UVR along a latitudinal gradient. American Society for Limnology and Oceanography Meeting, Honolulu, HI. February 15-20.
- Pakulski, J.D., A.J. Baldwin, R. Stephens, J. Moss, and **W.H. Jeffrey**. 2004. Variable responses of heterotrophic bacteria to surface solar conditions in the Pacific ocean. Amer. Soc. for Limnology and Oceanography Meeting, Honolulu, HI. February 15-20.
- Mioni, C.E., S.M. Handy, M.R. Twiss, J. Sudre, R.D. Frew, **W.H. Jeffrey**, P.W. Boyd, V. Garcon, and S.W. Wilhelm. 2004. Deployment of a heterotrophic bioluminescent bioreporter to estimate the bioavailability of iron in seawater. American Society for Limnology and Oceanography Meeting, Honolulu, HI. February 15-20.
- Arnosti, C., S. Ghobrial, and **W.H. Jeffrey**. 2005. Spatial patterns in the activities of microbial extracellular enzymes: A Factor in their persistence of "semi-labile" DOC? Amer. Society for Limnology and Oceanography Meeting, Salt Lake City. Feb. 20 – 25.
- Abboudi, M., R. Sempere, F. Joux, B. Charriere, D. Levevre, M Tedetti, M. Pujo-Pay, and **W.H. Jeffrey**. 2005. Impact du rayonnement ultraviolet sur le recyclage de la matiere organique par les bacteries marines. Colloque d'Ecologie Microbienne, Obernai, France. May 9-12.
- Jeffrey, W.H.**, A.J. Baldwin, J.A. Moss, J.D. Pakulski, F. Joux. 2005. Microbial Diversity in a Pacific Ocean transect from the Arctic to Antarctic Circles. American Society for Limnology and Oceanography Meeting, Santiago de Compostela, Spain, June 19 – 24.
- Joux, F., P. Conan, F. Lantoiné, I. Obernosterer, **W.H. Jeffrey**, and M. Abboudi. 2005. Depth distributions of solar UV radiation effects on bacterioplankton and phytoplankton in NW Mediterranean coastal water during summer. Amer. Society for Limnology and Oceanography Meeting, Santiago de Compostela, Spain, June 19 – 24.
- Neale, P.J., **W.H. Jeffrey**, C. Sobrino, L.A. Franklin, and J. Phillips-Kress. 2005. UV Inhibition of phytoplankton photosynthesis during the late stage of an extensive Ross Sea polynya bloom. American Society for Limnology and Oceanography Meeting, Santiago de Compostela, Spain, June 19 – 24.
- Joux, F. , I. Obernosterer, P. Conan, F. Lantoiné, **W.H. Jeffrey**, and A. Baldwin. 2005. Impact of solar UV radiation on bacterioplankton and phytoplankton biomasses and activities at different depths in NW Mediterranean coastal water during summer. 11th Congress of the European Soc. for Photobiology, Aix-les-Bains, France. September 3-8.

- Jeffrey, W.H.**, J.D. Pakulski, S. Connelly, A.J. Baldwin, D. Karentz, J. Phillips-Kress, C. Sobrino, L. Franklin, and P.J. Neale. 2006. Effects of ultraviolet radiation on bacterioplankton in the Ross Sea, Antarctica. American Society for Limnology and Oceanography Meeting, Honolulu, HI. February 19-24.
- Arnosti, C., S. Ghobrial, A. Baldwin, and **W.H. Jeffrey**. 2006. Evidence of Functional Diversity Among Pelagic Microbial Communities: Variations in Rates and Patterns of Extracellular Enzyme Activities with Site and Depth. American Society for Limnology and Oceanography Meeting, Honolulu, HI. February 19-24.
- Baldwin, A.J., J.D. Pakulski, S. Connelly, and **W.H. Jeffrey**. 2006. Effects of prolonged solar exposure on marine bacterioplankton community structure and function. Amer. Soc. for Limnology and Oceanography Meeting, Honolulu, HI. February 19-24.
- Guida, T., J. Porter, C. Williamson, and **W. Jeffrey**. 2006. Exposure of Bacteria to UV-B Radiation Over Chronic and Acute Time Scales: Evidence for Dose-rate Dependence. American Society for Limnology and Oceanography Meeting. Victoria, British Columbia. June 4 – 9.
- P. J. Neale, R. E. Moeller, G. Dee, C. E. Williamson, **W. Jeffrey**, R. Sanders, and M. Olson. 2006. UV effects across multiple trophic levels in freshwater ecosystems: Comparative spectroscopy of biological weighting functions. Annual Meeting American Society for Photobiology. Rio Grande, Puerto Rico. July 8 – 12.
- Jeffrey, W.H.**, S. Connelly, T.A. Guida, T.A., D.L. Mitchell, and P.J. Neale. 2007. Diel patterns of UVR induced DNA Damage and repair in the microbial community of Lake Giles, PA. American Society for Limnology and Oceanography Annual Meeting, Santa Fe, NM. February 4 – 9.
- Sanders, R.W., **W.H. Jeffrey**, R.E. Moeller, D. Morris, and J. Porter. 2007. Dynamics of planktonic microbial communities across a gradient of dissolved organic carbon (DOC): results from large scale mesocosms. American Society for Limnology and Oceanography Annual Meeting, Santa Fe, NM. February 4 – 9.
- Joux, F., **W. Jeffrey**, M. Abboud, and J.-J. Naudin. 2007. UV radiation penetration and biological impact on low salinity Rhone River mesoscale structures. Bilan des travaux dans le cadre du chantier Méditerranée Nord Occidentale (PNEC, CNRS-INSU). Banyuls-sur-Mer, France, March 14-15, 2007
- Abboudi, M., F. Joux, **W.H. Jeffrey**, J.-F. Ghiglione, M. Pujo-Pay, L. Oriol, R. Sempère, and B. Charrière. 2007. Effects of photochemical transformations of dissolved organic matter on bacterial metabolism and diversity. 38th CIESM Congress. Istanbul, Turkey. April 9 – 13.
- Joux, F., **W. Jeffrey**, M. Abboud, M. Pujo-Pay, L. Oriol, and J.-J. Naudin. 2007. UV radiation penetration and biological impact on low salinity Rhone River mesoscale structures in the NW Mediterranean Sea. 10th Symposium on Microbial Ecol, Faro, Portugal. September 2 – 7.

- Bertoni, R., **W. H. Jeffrey**, F. Joux, P. Conan, M. Pujo-Pay, L.Oriol. 2007. Phyto and bacterioplankton susceptibility to UV radiation : influence of water column mixing in NW Mediterranean coastal waters. XVIII Congresso Nazionale Associazione Italiana di Oceanologia e Limnologia. Ancona, Italy. September 17-20.
- Fischer, J.M., K. Kessler, R.W. Sanders, C.E. Williamson, **W.H. Jeffrey**, R.E. Moeller, D.P. Morris, J.A. Porter, P.A. Neale, J.E. Saros, S.L. Cooke, A.L. Macaluso, E.P. Overholt, J.D. Pakulski, D. Schoener, and C. Scott. 2008. Effects of CDOM addition on crustacean zooplankton in an oligotrophic lake: carbon and nutrient subsidy or UV screen? Amer. Society of Limnology and Oceanography Annual Meeting. Orlando, FL. March 2-7.
- Williamson, C. E., G. Dee, L. J. Shirey, J. E. Saros, R. W. Sanders, J. A. Porter, W. J. Palen, M. H. Olson, P. J. Neale, A. L. Macaluso, K. Kessler, **W. H. Jeffrey**, T. Guida, S. Gilroy, M. DeLange, S. J. Connelly, and A. A. Clauser. 2008. Do ultraviolet (UV) tolerance and photoenzymatic repair vary across trophic levels from bacteria and phytoplankton to zooplankton and fish? Amer. Society of Limnology and Oceanography Annual Meeting. Orlando, FL. March 2-7.
- Neale, P. J., **W.H. Jeffrey**, R.E. Moeller, J. Phillips-Kress, J.D. Pakulski, J.A. Porter, A. Heinze, A. Macaluso, R.W. Sanders, and C.L. Speekman. 2008. Planktonic response to UV in a changing environment: effects of early spring warming on biological weighting functions. American Society of Limnology and Oceanography Annual Meeting. Orlando, FL. March 2-7.
- Jeffrey, W. H.**, A.J. Baldwin, A. Heinze, A. Macaluso, R. Moeller, P.J. Neale, J.D. Pakulski, J. Phillips-Kress, J.H. Porter, and R. Sanders. 2008. The effects of UV and temperature on microbial community structure in a temperate lake. American Society of Limnology and Oceanography Annual Meeting. Orlando, FL. March 2-7.
- Mitchell, D. L., C.J. Connelly, **W.H. Jeffrey**, A. Macaluso, R.E. Moeller, M.H. Olson, J.A. Porter, R.W. Sanders, A.J. Tucker, and C.E. Williamson. 2008. Photoprotection against UV-B radiation in freshwater plankton: a comparative approach across a broad trophic spectrum. Amer. Society of Limnology and Oceanography Annual Meeting. Orlando, FL. March 2-7.
- Miller, A. L., M.A. Cochran, J.A. Serdula, K. Davis, D. Ann, **W.H. Jeffrey**, and P.P. Vaughan. 2008. Bacterial growth response to photoactive quinines. 2008. American Society of Limnology and Oceanography Annual Meeting. Orlando, FL. March 2-7.
- Bullock, A.K., and **W.H. Jeffrey**. 2008. Temperature and ultraviolet radiation interactions on bacterioplankton production in Pensacola Bay, FL. Joint meeting of the Southeastern and Florida Branches of the Amer. Society for Microbiology, Jacksonville, FL. November 6 - 8.

RESEARCH CRUISE EXPERIENCE

- 1982 R/V BELLOWS, 2 days, Gulf of Mexico, G. Vargo, Chief Scientist
 1983 R/V BELLOWS, 6 days, Gulf of Mexico, S. Vargo, Chief Scientist
 1984 R/V BELLOWS, 6 days, Gulf of Mexico, Ken Carder, Chief Scientist
 1985 R/V BELLOWS, 5 days, Dry Tortugas, J.H. Paul, Chief Scientist
 1985 R/V SUNCOASTER, 14 days, Gulf of Mexico, J.H. Paul, Chief Scientist
 1986 R/V BELLOWS, 6 days, Gulf of Mexico, W.H. Jeffrey, Acting Chief Scientist

1987 R/V BELLOWS, 5 days, Dry Tortugas, J.H. Paul, Chief Scientist
 1988 R/V BELLOWS, 6 days, Cay Sal, Bahamas, J. Paul, Chief Scientist
 1990 R/V CAPE HATTERAS, 8 days, Bahamas, J.H. Paul, Chief Scientist
 1992 OSV P.W. ANDERSON, 8 days, Northern Gulf of Mex., R.B. Coffin, Chief Scientist
 1992 R/V BELLOWS, 5 days, Northeastern Gulf of Mexico, W.H. Jeffrey, Chief Scientist
 1992 R/V GYRE, 5 days, Northern Gulf of Mexico, L. Cifuentes, Chief Scientist
 1992 OSV P.W. ANDERSON, 8 days, Northern Gulf of Mex., W. Jeffrey, Chief Scientist
 1993 R/V CAPE HENLOPEN, 3 days, Bermuda (BATS), J.W. Ammerman, Chief Sci.
 1993 OSV P.W. ANDERSON, 9 days, Key West, FL, R.B. Coffin, Chief Scientist
 1994 OSV P.W. ANDERSON, 7 days, Northern Gulf of Mex., R.B. Coffin, Chief Scientist
 1994 R/V BELLOWS, 5 days, Northeastern Gulf of Mexico, W.H. Jeffrey, Chief Scientist
 1994 R/V BELLOWS, 4 days, Northeastern Gulf of Mexico, W.H. Jeffrey, Chief Scientist
 1994 OSV P.W. ANDERSON, 4 days, Gulf of Mexico, R.B. Coffin, Chief Scientist
 1995 R/V LONGHORN, 10 days, Gulf of Mexico, C. Suttle, Chief Scientist
 1995 R/V POLAR DUKE, 40 days, Gerlache Straits, Antarctica, W.H. Jeffrey, Chief Sci.
 1996 R/V POLAR DUKE, 40 days, Gerlache Straits, Antarctica, W.H. Jeffrey, Chief Sci.
 1997 R/V POLAR DUKE, 22 days, Chile to Louisiana, W.H. Jeffrey, Chief Scientist
 1997 R/V BELLOWS, 4 days, Biol. Oceanogr. Teaching Cruise, W.H. Jeffrey, Chief Sci.
 1998 R/V BELLOWS, 3 days, Oceanogr. Tech. Teaching Cruise, W.H. Jeffrey, Chief Sci.
 1998 R/V LAWRENCE M. GOULD. 40 days, Weddell Sea, Patrick Neale, Chief Scientist
 1999 R/V BELLOWS, 3 days, Oceanogr. Tech. Teaching Cruise, W.H. Jeffrey, Chief Sci.
 2000 R/V BELLOWS, 3 days, Oceanogr. Tech. Teaching Cruise, W.H. Jeffrey, Chief Sci.
 2000 RVIB NATHANIAL B. PALMER, 25 days, Chile to Louisiana, W. Jeffrey, Chief Sci.
 2000 R/V BELLOWS, 4 days, Biol. Oceanogr. Teaching Cruise, W.H. Jeffrey, Chief Sci.
 2001 R/V BELLOWS, 3 days, Oceanogr. Tech. Teaching Cruise, W.H. Jeffrey, Chief Sci.
 2001 R/V PELICAN, 13 days, Gulf of Mexico, W.H. Jeffrey, Chief Scientist
 2002 R/V SUNCOASTER, 4 Days, Mar. Field Ecol. Teach Cruise, W.H. Jeffrey, Chief Sci.
 2002 RVIB NATHANIAL B. PALMER, 29 days, Chile to California, W. Jeffrey, Chief Sci.
 2003 R/V BELLOWS, 4 Days, Mar. Field Ecol. Teach Cruise, W.H. Jeffrey, Chief Sci.
 2003 RVIB NATHANIEL B. PALMER. 3 days, Barrow, AK, W.H. Jeffrey, Chief Scientist
 2003 RVIB NATHANIEL B. PALMER. 23 days, Ross Sea, Patrick Neale, Chief Scientist
 2004 RV TEHTYS II, 4 days, Mediterranean Sea, J.-J. Naudin, Chief Scientist
 2004 R/V BELLOWS, 3 days, Biol. Oceanogr. Teaching Cruise, W.H. Jeffrey, Chief Sci.
 2004 RVIB NATHANIEL B. PALMER. 39 days, Ross Sea, Ron Kiene, Chief Scientist
 2005 RVIB N.B. PALMER. 45 days, Ross Sea, PJ Neale & W.H. Jeffrey, Chief Scientists
 2006 N/O Le Suroît. 14 days, Mediterranean Sea, J.-J. Naudin, Chief Scientist

TEACHING – University of West Florida

<i>Molecular Ecology</i>	1993. PCB 4990/5990. 2 cr. hr. 1996, 1998, 2000. PCB6990. 3 cr. hr.
<i>Genetics Laboratory</i>	1994, 1997. PCB3063L.
<i>Current Biology</i>	1995. PCB2990. 3 cr. hr.
<i>Biological Oceanography</i>	1996. BSC 4990/5990. 3 cr. hr. 1997, 2004 BSC 4990/5265. 3 cr. hr. 2008. BSC4263 3 cr. hr. (On-line)
<i>Biol. Ocean. Laboratory</i>	1997, 2004. BSC 5265L. 1 cr. hr.
<i>Marine Microbiology</i>	1997. MCB 4990/5990. 3 cr. hr. 1999, 2004. MCB 4733/5735. 3 cr. Hr.
<i>Oceanography</i>	1997, 1998, 1999. OCE 3001. 3 cr. hr.
<i>General Biology</i>	1997. BIO 1010. 3 cr.hr (2 sections).
<i>Oceanographic Techniques</i>	1998, 1999, 2000. BSC 6990. 1 cr. Hr.
<i>Experimental Oceanography</i>	2001. OCE 4990/5990. 1 cr Hr.
<i>Marine Biotechnology</i>	2001, 2003. 2005. BSC 4990/5990. 3 cr. Hr.
<i>Marine Field Ecology</i>	2002, 2003. OCE 4990. 2 cr. Hr.
<i>Biology Seminar</i>	2002, 2003. PCB4991/5991. 1 cr. Hr. 2007 - 2009. PCB4922/5924. 1 cr. Hr.
<i>Climate Change Biology</i>	2007. BSC4990/5990. 3 cr. Hr.
<i>Genetics</i>	2008. PCB3063. 3 cr. Hr.
<i>Professional Development</i>	2009. BSC6840. 3 cr. Hr.
<i>Directed Study</i>	1993-2009. BSC3905, BSC4905, BSC5905, BSC6905, OCE4905. Over Forty separate projects from 1-6 credits

STUDENT SUPERVISION AND TRAINING*Graduate Student Supervision*

LeAnna Hutchinson (MS 1997)
Jason Kase (MS 1998). Outstanding Grad. Student Award, Dept Biology 1998-99.
Sarah Ahrens (MS 1999)
Ronald Combs (MS – 2006)
Amy Baldwin (MS - 2007) Awarded Outstanding Grad. Stud. Dept Biology 2004-05.
Erin Hunter (MS - current)
Kathleen McClinton (MS – current)
Melissa Overton (MS – current)

Graduate Committee Member

Aileen Grunwald (MS-2000)
Kathleen Kresge, Lehigh University (PhD-2002)
Melissa Booth, Oklahoma State University (PhD-1997)
Jarrah Meador, University of Texas- Houston (PhD-2004)
Marc Frischer, Univ. South FL. Chair, PhD Dissertation Defense Committee, 1993
Christine Kellogg, Univ. South FL. Chair, PhD Dissertation Defense Committee, 1998
Lori Deneke, Univ West Florida. (MS-2004)
Sara Laporte, University of West Florida. (MS-2006)
Tim Guida, Lehigh University (MS-2006)
Cheryl McGill, Univ. West Florida (MS-2007)
Kristen Smith, Univ. West Florida (MS-2006)
Suzanne Gibson, Univ. West Florida (MS - 2008)

Kristen Hellein, Univ. West Florida (MS - 2008)

Eric Tauchman, Univ. West Florida (MS – 2008)

Dustin Addis, Univ. West Florida (MS – 2008)

Post Doctoral Associates

Sylvia Nazaret, Fabien Joux, J.D. Pakulski, Hui Wang

Sixteen Undergraduate Students currently or previously employed in the laboratory

UNIVERSITY SERVICE

- University representative to Florida Institute of Oceanography Advisory Committee (1996-present)
- Chair, Florida Institute of Oceanography Advisory Committee (1998- 2004)
- University Task Force for Faculty Rights and Responsibilities (1997-8)
- University Employee Benefits Committee (1998-present)
- College of Science and Technology Resource Allocation Committee (1999-present)
- Member, Florida Sea Grant Ad Hoc Committee on Marine Biotechnology (2000)
- University representative to the Florida Center for Environmental Studies (1995, 1998 - 2000)
- Member, Search Committee, Marine Invertebrate Physiologist & Marine Vertebrate Physiologist. Department of Biology (1998)
- Guest Lecturer: “Introduction to Environmental Sciences.” Lecture on ozone depletion Pensacola Junior College. 1996.
- Guest Lecturer: Leisure Learning Society Series on *The Myths of Science*. Lectures on “El niño” and “Antarctic Ozone Depletion.” University of West Florida (1997)
- Guest Lectures, Science Seminar for Superior Students (1996; 1998; 2000)
- Guest Lectures, Spring Honors Seminar Series (1997; 1998)
- Member, Search Committee, Environmental Microbiologist, Center for Environmental Diagnostics & Bioremediation, Department of Biology (2001)
- Member, Selection committee for the Art in State Buildings Program (2002)
- Member, Department of Biology 5 year planning committee (2002 – present)
- Member, University Radiation Safety Committee (2001-present)
- Member, SCUBA Diving Safety Control Board (2001-present)
- Chair, Search Committee, Microbiologist, Department of Biology (2003)
- Chair, Search Committee, Sediment Biogeochemist, Center for Environmental Diagnostics and Bioremediation (2003).
- Member, Search Committee, University Provost (2003, 2004)
- Presidential Faculty Advisory Council (2005 – 2008)
- Guest Lecturer: “Foundations in Chemistry.” Lecture on ozone depletion, ultraviolet radiation, and climate change. University of West Florida (2005, 2006, 2007, 2008)
- Member, Campus Master Plan Task Force, Main Campus Sub Group (2006)
- Member, Search Committee, University Provost (2007)
- Member, Search Committee, University Interim Provost (2007)
- Member, Search Committee, Marine Ecologist, Department of Biology (2007-8)
- Member, Distinguished University Professorship Committee (2007)
- Chair, Search Committee, Biogeochemist, CEDB (2008)

PROFESSIONAL SERVICE

- 1996. Invited Participant, Inter-American Institute for Global Change Research Workshop, “The effects of UV radiation on various ecosystems at different latitudes.” Ensenada, MX. Sept. 15-19.
- 1997. Invited Participant, Inter-American Institute for Global Change Research Workshop, “Low latitude UVB effects in phytoplankton and bacteria, mechanisms and methods.” Puerto Morelas, MX. March 3 - 7.
- 1998. Invited Participant, Inter-American Institute for Global Change Research Workshop. Ensenada, MX. February 13-15.
- 1998. American Society for Microbiology Annual Mtg. Symposium organizer and co-convenor *Ultraviolet radiation induced processes and effects in microbial ecosystems*. Atlanta, GA
- 1998–2002. Chair, Florida Institute of Oceanography Advisory Committee
- 1998–2004. Member, Raytheon Polar Services and National Science Foundation Office of Polar Programs “Palmer Area Users Committee”
- 2001–2004. Chair, Raytheon Polar Services and National Science Foundation Office of Polar Programs “Palmer Area Users Committee”
- 1999. Member, Panel for Proposal Reviews, Biological Oceanography Program, National Science Foundation
- 1999–2001. Instructor, “*Advanced Biology Training Course In Antarctica, Integrative Biology and Adaptation of Antarctic Marine Organisms.*” National Science Foundation, McMurdo Station, Antarctica.
- 2002. American Society for Limnology and Oceanography Ocean Sciences Meeting, Honolulu, HI. Session Co-chairman. *Viruses and prokaryotes in Aquatic Systems III.*
- 2002. Member, Panel for Proposal Reviews, Biocomplexity GEN-EN Program, National Science Foundation
- 2002. Member, Panel for Proposal Reviews, Ship time awards, Florida Institute of Oceanography
- 2003. Member, Panel for Proposal Reviews, Ship time awards, Florida Institute of Oceanography
- 2003–2006. Member, Executive committee, Florida Institute of Oceanography advisory committee.
- 2004. Member, Panel for Proposal Reviews, Office of Polar Programs, National Science Foundation
- 2004–present. Associate Editor, *Limnology and Oceanography*
- 2006. Member, Panel for Proposal Reviews, Planetary Protection Program, NASA
- 2008. American Society for Limnology and Oceanography Ocean Sciences Meeting, Orlando, FL. Session Chairman. *UV Effects on Aquatic Ecosystems: Integration at multiple trophic levels.*

Manuscript Peer Review:

Applied and Environmental Microbiology
Aquatic Microbial Ecology
Arctic, Antarctic, and Alpine Research
Biogeosciences
Environmental Microbiology
Hydrobiologia
Journal of Bacteriology
Journal of Coastal Research
J. Exp Marine Biology & Ecology

Proposal Peer Review:

Department of Energy
Florida Sea Grant
Georgia Sea Grant
National Science Foundation
Nat. Undersea Res. Program NOAA
US Environmental Protection Agency
US Department of State
Florida Institute of Oceanography
The Dutch Research Council for

Journal of Phycology
Journal of Plankton Research
Limnology and Oceanography
Marine Ecology Progress Series
Marine Microbial Food Webs
Microbial Ecology
Nature
Photochemistry and Photobiology
Limnology and Oceanography Methods
Aquatic Science
Science
Science of the Total Environment

Marine Biology
Antarctica New Zealand
Natural Environment Research
Council (United Kingdom)
Texas Sea Grant
Delaware Sea Grant
Mississippi Sea Grant
NASA

COMMUNITY SERVICE

- Mentored high school science fair projects, one a repeat regional winner and state finalist, One an honorable mention in regional competition
- Judge; Microbiology Division, 1996 Northwest Florida Regional Science Fair
- Guest Speaker at various local public schools, topics include Antarctica, ozone depletion
- Volunteer teacher, Gulf Breeze Elementary School
- Guest speaker, Santa Rosa Sound Coalition.
- Guest Speaker, Math and Science Day 2000, 2001. Escambia Public Schools.
- Center for Environmental Diagnostics & Bioremediation display at Bay Day 2001, 2003, a hands-on environmental awareness program for sixth graders in Escambia County Schools
- Member, Escambia County Board of County Commissioners Information Analysis and Planning Team (IAPT). A community task force to study and make recommendations concerning ground level ozone in Northwest Florida. 2001.
- Volunteer, Pensacola Children's Chorus
- Volunteer, Pensacola Little Theatre
- Volunteer, Gulf Breeze High School Marching Band
- Technical Advisor, Brentwood Elementary Magnet School of Communication and Technology, Internet Science and Technology Fair. 2002. Project Title: "What's up with ultraviolet rays?"
- Email correspondence with elementary, middle, and high school classes from remote field locations including oceanographic cruises and Antarctic field stations
- Guest Lecturer: History of Photography course. "Frank Hurley and the Endurance expedition to Antarctica: Extreme Photography and Historical Documentation." Pensacola Junior College (2003 – 2007)
- Guest Speaker: Old Antarctic Explorers Gulf Coast Group, Pensacola, FL
- Distinguished Alumni Award, Trinity Episcopal School, Richmond, Virginia (2006)
- Judge; Environmental Sciences Division, Episcopal Day School Science Fair (2006)
- Volunteer, Science Olympiad, Gulf Breeze Middle School (2006-7)
- Lecturer; "In Service Workshop on Global Climate Change," Escambia County, Florida K-12 Science and Social Studies teachers. Pensacola, FL Sept. 18 – 19, 2007.
- Judge; Science Fairs at Episcopal Day School and Bellview Middle School (2007)
- Guest Speaker, Bailey Middle School and Workman Middle Schools on Climate Change (2007)
- Science Fair Advisor, students at Workman Middle School (2007)
- Microbiology Project Advisor, students in the International Baccalaureate Program, Pensacola High School (2007-08)

- Judge; Science Fairs at Episcopal Day School, St. Paul Catholic School (2008 – 09)
- Lead Judge, Environmental Sciences section, The 54th Annual West Panhandle Regional Science and Engineering Fair (2009)

PROFESSIONAL MEMBERSHIPS

American Society for Microbiology, American Society of Limnology and Oceanography, American Society for Photobiology, The Oceanography Society