

CURRICULUM VITAE

Joan Forshaug Braddock

PERSONAL INFORMATION

Current Address:

School of Fisheries and Ocean Sciences
905 N. Koyukuk Drive, 245 O'Neill
P.O. Box 757220
Fairbanks, AK 99775-7220
jnbraddock@alaska.edu

PROFESSIONAL EXPERIENCE/EMPLOYMENT

2015-present	Interim Dean, School of Fisheries and Ocean Sciences
2009-2015	Director, UA Press
2009-present	Dean Emerita, Professor Emerita, University of Alaska Fairbanks
2008-2009	Interim Director, UA Press
2004-2009	Dean, College of Natural Science and Mathematics
2003-2004	Interim Dean, College of Science, Engineering and Mathematics
2003-2013	Affiliate Faculty, Department of Microbiology, University of Washington
2002-2003	Associate Director, Institute of Arctic Biology.
2001-2003	Professor of Microbiology (tenure track), Institute of Arctic Biology and Department of Biology and Wildlife, and Adjunct Professor, Water and Environmental Research Center, University of Alaska Fairbanks
1999-2001	Department Chair and Coordinator of the Graduate Program, Department of Biology and Wildlife, University of Alaska Fairbanks
1996-2001	Associate Professor of Biology, Institute of Arctic Biology and Department of Biology and Wildlife, and Adjunct Associate Professor, Water and Environmental Research Center, University of Alaska Fairbanks
1990-1996	Assistant Professor of Microbiology, Institute of Arctic Biology and Department of Biology and Wildlife, and Adjunct Assistant Professor, Water and Environmental Research Center, University of Alaska Fairbanks.
1989-1990	Research Associate, Water Research Center, University of Alaska Fairbanks
1985-1989	Graduate Research Assistant, Water Research Center, University of Alaska Fairbanks
1984-1985	Research Associate, Water Research Center, University of Alaska Fairbanks
1983-1984	Agricultural Assistant, Agricultural Experiment Station, University of Alaska
1980-1983	Graduate Research Assistant, Institute of Water Resources, University of Alaska
1979-1980	Chemist, Syva Company, Cupertino, CA
1977-1978	Research Assistant, Inst. of Marine Science, University of Alaska
1976-1977	Microbiologist, U.S. Environmental Protection Agency, Fairbanks AK

EDUCATION

1989	Ph.D. Oceanography, University of Alaska; Dissertation Title: Competition between two aquatic microorganisms for oscillating concentrations of phosphorus.
1983	M.S. Microbial Physiology, University of Alaska; Thesis Title: Iron-limited growth kinetics of <i>Thiobacillus ferrooxidans</i> isolated from arsenic mine drainage.

1977 B.S. Biological Sciences, University of Alaska, cum laude.
Druska Carr Schaible Memorial Award (for outstanding Biological Sciences major), 1977

Professional Organizations

American Society for Microbiology
Association for Women in Science
Sigma Xi
Phi Kappa Phi
Golden Key

RESEARCH

Publications

Journal Articles

McKelvie, J.R., S.K Hirschorn, G. Lacrampe-Couloune, J. Lindstrom, J. Braddock, K. Finneran, D. Trego and B Sherwood Lollar. 2007. Evaluation of TCE and MTBE in situ biodegradation: integrating stable Isotope, metabolic intermediate, and microbial lines of evidence. *Ground Water Monitoring & Remediation*. 27:63-73.

Budsberg, K.J., C.F. Wimpee and J.F. Braddock. 2003. Isolation and identification of *Photobacterium phosphoreum* from an unexpected niche: migrating salmon. *Applied and Environmental Microbiology* 69:6938-6942.

Prince, R.C., R.M. Garrett, R.E. Bare, M.J. Grossman, T. Townsend, J.M. Suflita, K. Lee, E.H. Owens, G.A. Sergey, J.F. Braddock, J.E. Lindstrom, J. Oudot and R.R. Lessard. 2003. The roles of photooxidation and biodegradation in long-term weathering of crude and heavy fuel oils. *Spill Science and Technology Bulletin*. 8: 145-156.

Braddock, J.F., J.E. Lindstrom and R.C. Prince. 2003. Weathering of a subarctic oil spill over twenty five years: the Caribou-Poker Creeks Research Watershed experiment. *Cold Regions Science and Technology*. 36: 11-23.

Zhou, F., J.F. Braddock, Y. Hu, X. Zhu, R.J. Castellani, M.A. Smith and K.L. Drew. 2002. Microbial origin of glutamate, hibernation and tissue trauma. *Journal of Neuroscience Methods*. 119: 121-128.

Lindstrom, J.E. and J.F. Braddock. 2002. Biodegradation of petroleum hydrocarbons at low temperature following application of the dispersant Corexit 9500. *Marine Pollution Bulletin*. 44: 739-747.

Richmond, S.A., J.E. Lindstrom and J.F. Braddock. 2001. Assessment of natural attenuation of chlorinated aliphatics and BTEX in subarctic ground water. *Environmental Science & Technology*. 35: 4038-4045.

Filler, D.M., J.E. Lindstrom, J.F. Braddock, R.A. Johnson, and R. Nickalaski. 2001. Integral biopile components for successful bioremediation in the arctic. *Cold Regions Science and Technology*. 32:143-156.

Walworth, J., J. Braddock and C. Woolard. 2001. Nutrient and temperature interactions in bioremediation of cryic soils. *Cold Regions Science and Technology*. 32:85-91.

Richmond, S.A., J.E. Lindstrom and J.F. Braddock. 2001. Effects of chitin on microbial emulsification, mineralization potential and toxicity of bunker C fuel oil. *Marine Pollution Bulletin*. 42:773-779.

- Lokvam, J., J.F. Braddock, P.B. Reichardt and T.P. Clausen. 2000. Two polyisoprenylated benzophenones from the trunk latex of *Clusia grandiflora* (Clusiaceae). *Phytochemistry*. 55:29-34.
- Lindstrom, J.E., R. P. Barry and J.F. Braddock. 1999. Long-term effects on microbial communities after a subarctic oil spill. *Soil Biology and Biochemistry*. 31: 1677-1689.
- Lokvam, J.C. and J.F. Braddock. 1999. Anti-bacterial function in the sexually dimorphic pollinator rewards of *Clusia grandiflora* (Clusiaceae). *Oecologia*. 119: 534-540.
- Braddock, J.F. and P.H. Catterall. 1999. A simple method for enumerating gasoline- and diesel-degrading microorganisms. *Bioremediation Journal* 3: 81-84.
- Walworth, J.L., C.R. Woolard and J.F. Braddock. 1999. Nitrogen: how much is enough for bioremediation? *Soil and Groundwater Cleanup*. Feb./March: 12-15.
- Braddock, J.F., J.L. Walworth and K.A. McCarthy. 1999. Biodegradation of aliphatic vs. aromatic hydrocarbons in fertilized arctic soils. *Bioremediation Journal* 3:105-116.
- Schimmel, J.P, J.M. Gulledege, J.S. Clein-Curley, J.E. Lindstrom and J.F. Braddock. 1999. Moisture effects on microbial activity and community structure in decomposing birch litter in the Alaskan taiga. *Soil Biology and Biochemistry* 31: 831-838.
- Lindstrom, J.E., R.P. Barry and J.F. Braddock. 1998. Microbial community diversity analysis: a kinetic approach to constructing carbon source utilization patterns. *Soil Biology and Biochemistry*. 30:231-239.
- Walworth, J.L., C.R. Woolard, J.F. Braddock and C.M. Reynolds. 1997. Enhancement and inhibition of soil petroleum biodegradation through the use of fertilizer nitrogen: an approach to determining optimum levels. *Journal of Soil Contamination*. 6:465-480.
- Braddock, J.F., M.L. Ruth, P.H. Catterall, J.L. Walworth and K.A. McCarthy. 1997. Enhancement and inhibition of microbial activity in hydrocarbon-contaminated arctic soils: implications for nutrient-amended bioremediation. *Environmental Science and Technology*. 31:2078-2084.
- Sugai, S.F., J.E. Lindstrom and J.F. Braddock. 1997. Environmental influences on the microbial degradation of Exxon Valdez oil on the shorelines of Prince William Sound, Alaska. *Environmental Science and Technology*. 31:1564-1572.
- Braddock, J.F., J.E. Lindstrom, T.R. Yeager, B.T. Rasley and E.J. Brown. 1996. Patterns of microbial activity in oiled and unoled sediments in Prince William Sound. *American Fisheries Society Symposium*. 18:94-108.
- Braddock, J.F. and K.A. McCarthy. 1996. Hydrologic and microbiological factors affecting persistence and migration of petroleum hydrocarbons spilled in a continuous-permafrost region. *Environmental Science and Technology*. 30:2626-2633
- Braddock, J.F., J.E. Lindstrom and E.J. Brown. 1995. Distribution of hydrocarbon-degrading microorganisms in sediments from Prince William Sound, Alaska following the *Exxon Valdez* oil spill. *Marine Pollution Bulletin*. 30:125-132.
- Tumeo, M.A., J.F. Braddock, T. Venator and S. Rog. 1994. Effectiveness of a biosurfactant in removing weathered crude oil from sub-surface beach material. *Spill Science Technology Bulletin* 1:53-59.

- Braddock, J.F. and E.J. Brown. 1994. Phosphate uptake by the yeast, *Rhodotorula rubra*, and the green alga, *Selenastrum capricornutum* Printz, after phosphate additions to steady-state continuous cultures. *Federation of European Microbiology Society Microbiology Ecology* 14:11-120.
- Wolfe, D.A., M.J. Hameedi, J.A. Galt, G. Watabayashi, J.W. Short, C.E. O'Clair, S. Rice, J. Michel, J.R. Payne, J.F. Braddock, S. Hanna and D.M. Sale. 1994. Fate of the oil spilled from the *T/V Exxon Valdez* in Prince William Sound. *Environmental Science and Technology* (feature article) 28:561-568.
- Lindstrom, J.E., R.C. Prince, J.R. Clark, M. Grossman, T. Yeager, J.F. Braddock and E.J. Brown. 1991. Microbial populations and hydrocarbon biodegradation potentials in fertilized shoreline sediments affected by the *T/V Exxon Valdez* oil spill. *Applied and Environmental Microbiology* 57:2514-2522.
- Brown, E.J. and J.F. Braddock. 1990. Sheen Screen: a miniaturized Most Probable Number technique for oil-degrading microorganisms. *Applied and Environmental Microbiology* 56:3895-3896.
- Luong, H.V., J.F. Braddock and E.J. Brown. 1984. Microbial leaching of arsenic from low-sulfide gold mine material. *Geomicrobiology Journal*. 4:85-90.
- Braddock, J.F., H.V. Luong and E.J. Brown. 1984. Growth kinetics of *Thiobacillus ferrooxidans* isolated from arsenic mine drainage. *Applied and Environmental Microbiology* 48:48-55.
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- Braddock, J.F., J. Lindstrom, D. Filler and J. Walworth. 2001. Temperature and nutrient effects on biodegradation of petroleum hydrocarbons in cold soils and ground water. pp. 161- 169, In *Proceedings of Edmonton '01: Assessment and Remediation of Contaminated Sites in Arctic and Cold Climates* (M. Nahir, K. Biggar and G. Cotta, Ed.), Edmonton, Alberta, Canada, May 2001.
- Braddock, J.F., L.N.A. Harduar, J.E. Lindstrom and D.M. Filler. 2000. Efficacy of bioaugmentation versus fertilization for treatment of diesel contaminated soil at an arctic site. pp. 991-1002, In *Proceedings of the Twenty-Third Arctic and Marine Oilspill Program (AMOP) Technical Seminar*, Vancouver, BC, June 2000.
- Richmond, S.A. and J.F. Braddock. 2000. Geochemical characterization of anaerobic ground water in subarctic Alaska. pp. 141-145, In *Proceedings of the American Water Research Association Conference on Water Resources in Cold Environments*, Anchorage, AK, May 2000.
- Rhoton, S.L., R.A. Perkins, Z.D. Richter, C. Behr-Andres, J.E. Lindstrom and J.F. Braddock. 1999. Toxicity of dispersants and dispersed oil to an Alaskan marine organism. #450 In *Proceedings of the International Oil Spill Conference*, March 1999.

- Walworth, J.L., C.R. Woolard, J.F. Braddock and C.M. Reynolds. 1997. The role of soil nitrogen concentration in bioremediation. Proceedings from the Fourth International Symposium on In Situ and On-Site Bioremediation Symposium, April-May 1997.
- Guinn, D.A., M.A. Tumeo and J.F. Braddock. 1995. Isolation and use of indigenous bacteria for bioremediation of soil from a former wood treatment site in southwestern Alaska. Proceedings of the 50th Annual Purdue Industrial Waste Conference, May 1995.
- Prince, R.C., J.R. Clark, J.E. Lindstrom, E.L. Butler, E.J. Brown, G. Winter, M.J. Grossman, P.R. Parrish, R.E. Bare, J.F. Braddock, W.G. Steinhauer, G.S. Douglas, J.M. Kennedy and P. Barter. Bioremediation of the *Exxon Valdez* oil spill: monitoring safety and efficacy in 1990. 1994. Proceedings of the International Symposium on In Situ and On-Site Bioreclamation, April 1993.
- Brown, E.J., H.V. Luong and J.M. Forshaug. 1983. Geomicrobiology of arsenic associated with gold deposits in Alaska. p.570-580 In G. Rossi and A.E. Torma (ed.), Recent progress in biohydrometallurgy. Associazione Mineralia Sarda, 09016, Iglesias, Italy.

Government/Agency Reports

- Payne, J.R., W.B. Diskell, J.F. Braddock, and J. Bailey. 2005. Hydrocarbon biodegradation in the ballast water treatment facility, Alyeska Marine Terminal. A final report to the Prince William Sound Regional Citizen's Advisory Council. May 2005.
- Braddock, J.F., K.A. Gannon and B.T. Rasley. 2004. Petroleum hydrocarbon-degrading microbial communities in Beaufort–Chukchi Sea sediments. Final Report. OCS Study MMS XXXX University of Alaska Coastal Marine Institute, University of Alaska Fairbanks and USDO, MMS, Alaska OCS Region, 36 p.
- Braddock, J.F., K.A. Gannon and B.T. Rasley. 2004. Petroleum hydrocarbon degrading microbial communities in Beaufort–Chukchi Sea sediments, p. 9. *In* University of Alaska Coastal Marine Institute Annual Report No. 10. OCS Study MMS 2004-002, University of Alaska Fairbanks and USDO, MMS, Alaska OCS Region.
- Braddock, J.F., and K.A. Gannon. 2002. Petroleum hydrocarbon degrading microbial communities in Beaufort–Chukchi Sea sediments, p. 65–72. *In* University of Alaska Coastal Marine Institute Annual Report No. 8. OCS Study MMS 2002-001, University of Alaska Fairbanks and USDO, MMS, Alaska OCS Region.
- Braddock, J.F. 2001. Biodegradation potential of petroleum hydrocarbons in Beaufort Sea sediments: assessment of long-range impacts of oil spills. Final Report to the Oil Spill Recovery Institute, November 2001.
- Braddock, J.F. and K.A. Gannon 2001. Petroleum hydrocarbon degrading microbial communities in Beaufort Sea sediments. Annual Report to the Coastal Marine Institute/Minerals Management Service, September 2001.
- Davies, L., F. Daniel, R. Swannell and J. Braddock. 2001. Biodegradability of chemically-dispersed oil. A report produced for the Minerals Management Service, Alaska Department of Environmental Conservation and the United States Coast Guard, Report no. AEAT/ENV/R0421 produced by AEA Technology Environment, U.K., March 2001.
- Richmond, S.A. and J.F. Braddock. 2000. In situ Gibbs free energies of hydrogen-oxidizing terminal electron-accepting processes in contaminated subarctic ground water. Annual Report to the Water and Environmental Research Center, Univ. of Alaska Fairbanks, September 2000.

- Braddock, J.F., and K.A. Gannon. 2000. Petroleum hydrocarbon degrading microbial communities in Beaufort Sea sediments, p. 69–77. *In* University of Alaska Coastal Marine Institute Annual Report No. 7. OCS Study MMS 2000-070, University of Alaska Fairbanks and USDO, MMS, Alaska OCS Region.
- Lindstrom, J.E., and J.F. Braddock. 2000. Petroleum hydrocarbon degrading microbial communities in Beaufort Sea sediments, p. 81. *In* University of Alaska Coastal Marine Institute Annual Report No. 6. OCS Study MMS 2000-046, University of Alaska Fairbanks and USDO, MMS, Alaska OCS Region.
- Hinzman, L.D., M.R. Lilly, J.F. Braddock, K.A. McCarthy, S. Richmond and M. Wegner. 2000. Natural Attenuation of Chlorinated-Hydrocarbon Contamination at Fort Wainwright, Alaska, A Hydrogeochemical and Microbiological Investigation. INE/WERC Report 00.02.
- Lindstrom, J.E., D.M. White and J.F. Braddock. 1999. Biodegradation of dispersed oil using Corexit 9500. A Final Report to the Alaska Department of Environmental Conservation, Oil Spill Response Division.
- Richmond, S.A. and J.F. Braddock. 1999. Results of the microbiological and geochemical study, chapter 3 In "A hydrologic, microbiological, and geochemical characterization of a trichloroethene-contaminated ground-water site on Fort Wainwright, Alaska". U.S. Geological Survey Open-File Report.
- Braddock, J.F., P.H. Catterall and S. A. Richmond. 1998. Assessment of the Potential for Biodegradation of Petroleum Hydrocarbons in the Railroad Industrial Area, Fairbanks, Alaska, 1993-94. U.S. Geological Survey Open-File Report 98-287.
- McCarthy, K.A., M.R. Lilly, J.F. Braddock, and L.D. Hinzman. 1998. Natural Attenuation of Chlorinated-Hydrocarbon Contamination at Fort Wainwright, Alaska: a Hydrogeochemical and Microbiological Investigation Workplan. Open-File Report 98-198, U.S. Geological Survey.
- Braddock, J.F. and Z. Richter. 1998. Microbial Degradation of Aromatic Hydrocarbons in Marine Sediments. Final Report to the Minerals Management Service, OCS Study MMS 97-0041, June 1998.
- Braddock, J.F., J.E. Lindstrom and S. F. Sugai. 1997. Hydrocarbon Monitoring: Integration of Microbial and Chemical Sediment Data. Final Report to Exxon Valdez Oil Spill Trustee Council. Restoration Project 95026 continued as 97026, May 1997.
- Braddock, J.F. 1996. Microbial Degradation of Aromatic Hydrocarbons in Marine Sediments. Annual Report to the Coastal Marine Institute, May 1996.
- Braddock, J.F. 1995. Microbial Degradation of Aromatic Hydrocarbons in Marine Sediments. Annual Report to the Coastal Marine Institute, May 1995.
- Braddock, J.F., and Z. Richter. 1994. Microbiology of subtidal sediments: monitoring microbial populations. Peer Reviewed Final Report to Alaska State Department of Environmental Conservation, June, 1994.
- Tumeo, M.A. and J.F. Braddock. 1994. Effectiveness of PES-51 in removing weathered crude oil from sub-surface beach material. Final Report, December, 1994.
- Braddock, J.F., B.T. Rasley and L. Nix. 1992. Hydrogen utilization by *Thiobacillus ferrooxidans* isolated from neutral pH mine drainage. Water Research Center, University of Alaska, Completion Report.

- Braddock, J.F., B.T. Rasley, T.R. Yeager, J.E. Lindstrom and E.J. Brown. 1992. Hydrocarbon mineralization potentials and microbial populations in marine sediments following the *Exxon Valdez* oil spill. Final Report to Alaska Department of Environmental Conservation. Peer reviewed and revised in 1993.
- Brown, E.J., B.T. Rasley, D.P. Dixon, S. Hong, H.V. Luong and J.F. Braddock. 1990. Microbial Ecology of *Thiobacillus ferrooxidans*. Final Technical Report to U.S. Dept. of the Interior, contract number 14-08-0001-61313.
- Braddock, J.F., J.E. Lindstrom and E.J. Brown. 1990. Microbial hydrocarbon degradation in sediments impacted by the *Exxon Valdez* oil spill. Final Report to Science Applications International Corporation for the National Oceanic and Atmospheric Administration, NOAA contract number 50-DSNC-8-00141.
- Brown, E.J. and J.M. Forshaug. 1983. Metabolic properties of *Thiobacillus ferrooxidans* isolated from neutral pH mine drainage. Institute of Water Resources, University of Alaska, Completion Report 81-11.
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- Luong, H.V., J.M. Forshaug and E.J. Brown. 1981. Biogeochemistry of arsenic mine drainage. Institute of Water Resources, University of Alaska, Completion Report 79-21.

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- Garron, J.I. and J.F. Braddock. 2005. Oil in a subarctic soil: a 30 year case study of a persistent oil spill. Abstracts of the 60th American Chemical Society Northwest Regional/Small Chemical Businesses Meeting, Fairbanks, AK, June 2005.
- Garron, J.I., and J.F. Braddock. 2005. Nitrogen cycling in a subarctic oil polluted soil following fire. *In* Abstracts of the 105th General Meeting of the American Society for Microbiology, Atlanta, GA, June 2005.
- Budsberg, K.J., J.F. Braddock. 2004. Analysis of the *Photobacterium phosphoreum* lux operon. *In* Abstracts of the 104th General Meeting of the American Society for Microbiology, New Orleans, LA, May 2004.
- Braddock, J.F., J.E. Lindstrom, R.C. Prince and K.J. Budsberg. 2004. Long-term effects of crude oil spilled in subarctic Alaska on microbial communities and hydrocarbon chemistry. *In* Abstracts of the International Conference on Arctic Microbiology, Rovaniemi, Finland, March 2004.
- Garron, J.I., and J.F. Braddock. 2004. Bacterial diversity in an oil contaminated subarctic soil. *In* Abstracts of the 104th General Meeting of the American Society for Microbiology, New Orleans, LA, May 2004.
- Budsberg, K.J., P. Massengo-Tiasse, J.F. Braddock and C.F. Wimpee. 2003. Are lux operon organization and expression conserved in geographically isolated strains of the same species? *In* Abstracts of the Arctic Science Conference, Fairbanks, AK, Septmeber 2003.

- Garron, J.I., K.J. Budsberg and J.F. Braddock. 2003. Bacterial diversity in an oil contaminated subarctic soil. *In* Abstracts of the 103rd General Meeting of the American Society for Microbiology, Washington, DC, May 2003.
- Budsberg, K.J., C.F. Wimpee and J.F. Braddock. 2003. Phenotypic characterization of *Photobacterium phosphoreum* from migrating Alaskan salmon. *In* Abstracts of the 103rd General Meeting of the American Society for Microbiology, Washington, DC, May 2003.
- Budsberg, K.J., C.F. Wimpee and J.F. Braddock. 2003. Genomic cloning of the lux operon from luminous Alaskan isolates. Oral presentation at the Alaska Chapter of the American Society for Microbiology 19th Annual Meeting, Anchorage, AK, April 2003
- Braddock, J.F., K. Semple, and J.M. Foght. 2003. Co-occurrence of nitrogenase (nifH) and alkane hydroxylase (alkB) sequences in bacterial isolates from fuel-contaminated Arctic and Antarctic soils. Oral presentation at the Alaska Chapter of the American Society for Microbiology 19th Annual Meeting, Anchorage, AK, April 2003
- Braddock, J.F. 2003. Petroleum hydrocarbon degrading microbial communities in Beaufort Sea sediments (Phase II) [Outreach perspective]. University of Alaska Coastal Marine Institute Annual Research Review, February 2003, Fairbanks.
- Braddock, J.F. and K.A. Gannon. 2003. Petroleum hydrocarbon degrading microbial communities in Beaufort Sea sediments. Coastal Marine Institute Annual Research Review, Fairbanks, AK, February 2003.
- Budsberg, K.J., C.F. Wimpee and J.F. Braddock. 2002. Isolation and identification of photobacterium phosphoreum from a new niche: Yukon River salmon, Alaska, USA. *In* Abstracts of the 102th General Meeting of the American Society for Microbiology, Salt Lake City, UT, May 2002, p. 248.
- Richmond, S.A., J.E. Lindstrom and J.F. Braddock. 2002. Biogeochemical Footprints of TCE and BTEX Attenuation in Subarctic Groundwater? Oral presentation at the American Society for Microbiology—Alaska Chapter 18th Annual Meeting, Fairbanks, AK, March 2002.
- Gannon, K.A. and J.F. Braddock. 2001. Petroleum hydrocarbon degrading microbial communities in Beaufort Sea sediments. Oral presentation at the American Society for Microbiology—Alaska Chapter 17th Annual Meeting, Anchorage, AK, April 2001.
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- Richmond, S.A. and J.F. Braddock. 2001. Ground-water/surface water interactions in a subarctic aquifer: implications for natural attenuation of chlorinated solvents. Oral presentation at the American Society for Microbiology—Alaska Chapter 17th Annual Meeting, Anchorage, AK, April 2001.
- Braddock, J.F. and K.A. Gannon. 2001. Petroleum hydrocarbon degrading microbial communities in Beaufort Sea sediments. Minerals Management Service Information Transfer Meeting, Anchorage, AK, April 2001.
- Drew, K.F., F. Zhou, Y. Hu, J.F. Braddock, X. Zhu, R. Castellani, and M.A Smith. 2001. Microdialysis, tissue trauma and glutamate in hibernating brains. *In* Abstracts of the 9th Annual Meeting on In Vivo Methods For Monitoring Molecules In Neuroscience. Dublin, June 2001.

- Braddock, J.F., L.N.A. Harduar, J.E. Lindstrom and D.M. Filler. 2000. Efficacy of bioaugmentation versus fertilization for treatment of diesel contaminated soil at an arctic site. pp. 991-1002, In Proceedings of the Twenty-Third Arctic and Marine Oilspill Program (AMOP) Technical Seminar, Vancouver, BC, June 2000.
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- Braddock, J.F. and K.A. Gannon. 2001. Petroleum hydrocarbon degrading microbial communities in Beaufort Sea sediments. Minerals Management Service Technology Transfer Meeting, Anchorage, AK, February 2000.
- Braddock, J.F. and J.L. Walworth. 1999. Nutrient effects on bioremediation. *In* Abstracts of the 15th Annual International Conference on Contaminated Soils and Water. Amherst, MA, October 1999. Invited Talk.
- Estensen, J.L, J.F. Braddock, M.W. Oswood, J.P. Bryant and J.G. Irons III. 1999. Winter vertebrate browsing of birch: effects on the use of leaf leachates by stream microbes. *In* Abstracts of the 50th Arctic Science Conference, Denali, Alaska, September 1999.
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- Lindstrom, J.E. and J.F. Braddock. 1999. Fungal and bacterial respiration in subarctic soils contaminated by crude oil. *In* Abstracts of the 99th General Meeting of the American Society for Microbiology, Chicago, IL, May 1999, p. 614.
- Richmond, S.A. and J.F. Braddock. 1999. Evidence of simultaneous aerobic and anaerobic transformation of trichloroethene in ground water treated with air sparging and soil vapor extraction. *In* Abstracts of the 99th General Meeting of the American Society for Microbiology, Chicago, IL, May 1999, p. 538.
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- Richmond, S.A. and J.F. Braddock. 1998. Evidence for biotic and abiotic transformation of trichloroethylene in subarctic ground water under aerobic and anaerobic conditions. *In* Abstracts of the 49th Arctic Science Conference, Fairbanks, Alaska, October 1998, p. 64.
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- Loquvam, J.C. and J.F. Braddock. 1998. Anti-bacterial pollinator rewards from a tropical plant. *In* Abstracts of the 98th General Meeting of the American Society for Microbiology, Atlanta, GA, May 1998.
- Richmond, S.A., J.E. Lindstrom and J.F. Braddock. 1998. Microbial mineralization and emulsification potential of bunker fuel oil spilled on a sandy beach near Dutch Harbor, Alaska. *In* Abstracts of the 98th General Meeting of the American Society for Microbiology, Atlanta, GA, May 1998.
- Loquvam, J.C. and J.F. Braddock. Anti-bacterial pollinator rewards from a tropical plant. Oral presentation at the American Society for Microbiology—Alaska Chapter meeting, Fairbanks, AK, April 1998.
- Richmond, S.A., J.E. Lindstrom and J.F. Braddock. 1998. Microbial mineralization and emulsification potential of a bunker fuel oil spilled on a sandy beach near Dutch Harbor, Alaska. Oral Presentation at the American Society for Microbiology—Alaska Chapter meeting, Fairbanks, AK, April 1998.
- McCarthy, K.M., L.D. Hinzman, J.F. Braddock, M.R. Lilly, S.A. Richmond and M.A. Wegner. 1997. A hydrological, geochemical, and microbiological characterization of a trichloroethene-contaminated alluvial aquifer in subarctic Alaska. *In* Abstracts of the American Geophysical Union Annual Meeting, San Francisco, CA, December 1997.
- Braddock, J.F. and J.E. Lindstrom. 1997. Microbial populations and processes in subarctic soils twenty years after an experimental crude oil spill. Poster presentation at the Gordon Research Conference on Applied and Environmental Microbiology, Newport, RI, August 1997.
- Braddock, J.F., J.L. Walworth and K. A. McCarthy. 1997. Nutrient effects on microbial activity in hydrocarbon-contaminated arctic soils: implications for bioremediation. *In* Abstracts of the International Symposium on Physics, Chemistry, and Ecology of Seasonally Frozen Soils, Fairbanks, AK, June 10-12, 1997.
- Braddock, J.F. 1997. Microbial responses to fertilization of diesel-contaminated soil. *In* Abstracts of the Cold Regions Remediation Conference, Anchorage, AK, April 3-5, 1997.
- Braddock, J.F. 1997. Microbial responses to fertilization of petroleum hydrocarbon contaminated soil. Oral presentation at the American Society for Microbiology—Alaska Chapter meeting, Anchorage, AK, April 1997.

- Bidartondo, M., J. Lindstrom and J. Braddock. 1996. A comparison of microbial populations between oiled and unoled taiga soils. p. 336. *In* Abstracts of the 96th General Meeting of the American Society for Microbiology, New Orleans, LA, May 1996.
- Monroe, E.M., J.E. Lindstrom, E.J. Brown and J.F. Braddock. 1996. The effect of organic matter on the biodegradation potential of crude oil applied on Alaskan taiga: nineteen years later. p.439. *In* Abstracts of the 96th General Meeting of the American Society for Microbiology, New Orleans, LA, May 1996.
- Richter, Z.D., E.J. Brown and J.F. Braddock. 1996. Bioavailability of phenanthrene in marine intertidal sediment slurries. p. 446. *In* Abstracts of the 96th General Meeting of the American Society for Microbiology, New Orleans, LA, May 1996.
- Lindstrom, J.E., R.P. Barry and J.F. Braddock. 1996. Microbial community diversity analysis: a kinetic approach to carbon source utilization patterns. Oral presentation at the American Society for Microbiology—Alaska Chapter meeting, Fairbanks, AK, May 1996.
- Smith, R.L., J.F. Braddock and E.J. Brown. 1996. The lectin-like properties of the extracellular protein produced by *Pseudomonas aeruginosa* during hexadecane degradation. Oral presentation at the American Society for Microbiology—Alaska Chapter meeting, Fairbanks, AK, May 1996.
- Catterall, P.H., M.L. Ruth and J.F. Braddock. 1995. An investigation of the microbial population at a sub-arctic bioremediation site. p. 202. *In* Abstracts of the 46th Arctic Division Science Conference, Fairbanks, AK, May 1996.
- Lindstrom, J.E. and J.F. Braddock. 1995. Microbial ecology of a taiga crude oil spill: microbiological indicators of contaminated soil. p. 205. *In* Abstracts of the 46th Arctic Division Science Conference, Fairbanks, AK, May 1996.
- Richter, Z.D. and J.F. Braddock. 1995. Bioavailability of phenanthrene in marine intertidal sediments. p. 219. *In* Abstracts of the 46th Arctic Division Science Conference, Fairbanks, AK.
- McCarthy, K.A., J.F. Braddock, G.L. Solin and D.C. Trabant. 1995. Assessment of the hydrology and subsurface microbiology of hydrocarbon contamination sites in a continuous-permafrost region. *In* Abstracts of the American Water Resources Association Summer Symposium, June 1995, Honolulu, HI.
- Braddock, J.F., K.A. McCarthy, P.H. Catterall and M.L. Ruth. 1995. Microbial degradation of hydrocarbons in contaminated ground water from a continuous permafrost region. p. 411. *In* Abstracts of the 95th General Meeting of the American Society for Microbiology, Washington, DC, May 1995.
- Lindstrom, J.E. and J.F. Braddock. 1995. Microbial ecology of a subarctic taiga crude oil spill: activity and metabolic diversity. p. 355. *In* Abstracts of the 95th General Meeting of the American Society for Microbiology, Washington, DC, May 1995.
- Catterall, P.H., J.E. Lindstrom, M.L. Ruth and J.F. Braddock. 1995. A substrate-specific most probable number technique for enumeration of microbial populations at petroleum contaminated sites. p. 422. *In* Abstracts of the 95th General Meeting of the American Society for Microbiology, Washington, DC, May 1995.
- Richter, Z.D. and J.F. Braddock. 1994. Monitoring microbial populations in sediments of Prince William Sound following the T/V Exxon Valdez oil spill. *In* Abstracts of the 54th North Central Branch of American Society for Microbiology Meeting, LaCrosse, WI, Oct. 1994.

- Monroe, E.M., J.E. Lindstrom and J.F. Braddock. 1994. Effects of nutrients on biodegradation of an eighteen-year-old oil spill on Alaskan subarctic permafrost terrain. *In* Abstract of the 54th North Central Branch of American Society for Microbiology Meeting, LaCrosse, WI, Oct. 1994.
- Lindstrom, J.E., P.H. Catterall and J.F. Braddock. 1994. Soil microbiological assays and their use in monitoring environmental damage and recovery. *In* Abstracts of the American Association for the Advancement of Science- Arctic Division Annual Meeting, August 1994.
- Braddock, J.F., T. Venator and M. Tumeo. 1994. Microbial response to a field test of the hydrocarbon cleanser, PES-51. *In* Abstracts of the 94th General Meeting of the American Society for Microbiology, Las Vegas, NV, May 1994.
- Gavlak, R.G., C.M. Reynolds, J.L. Walworth, J. Braddock, G.A. Mitchell and J. McKendrick. 1994. Expanding the role of soil science in bioreclamation: lessons learned from presenting a workshop to the Alaska Geological Society. *In* Agronomy Abstracts, 1994. Soil Science Society of America, Seattle, WA.
- Braddock, J.F. 1994. Women in Microbiology. Oral presentation at the American Society for Microbiology—Alaska Chapter meeting, Fairbanks, AK, April 1994.
- Lindstrom, J.E. and J.F. Braddock. 1994. Microbiological indices of soil stress at a hydrocarbon-contaminated site. Oral presentation at the American Society for Microbiology—Alaska Chapter meeting, Fairbanks, AK, April 1994.
- Smith, R., T. Yeager, E. Brown and J. Braddock. 1993. The effect of synthetic surfactants on the biodegradation of a petroleum hydrocarbon by *Pseudomonas aeruginosa*. *In* Abstracts of the 1993 International Symposium on Subsurface Microbiology, Bath, UK.
- Braddock, J.F., J. Lindstrom and E.J. Brown. 1993. Microbial biodegradation of oil in sediments following the T/V *Exxon Valdez* oil spill. *In* Abstracts of the 93rd General Meeting of the American Society for Microbiology, Atlanta, GA, May 1993.
- Wolfe, D.A., M.J. Hameedi, J.A. Galt, G. Watabayashi, J.W. Short, C.E. O'Clair, S. Rice, J. Michel, J.R. Payne, J.F. Braddock, S. Hanna and D.M. Sale. 1993. Fate of the oil from the T/V *Exxon Valdez* in Prince William Sound. Expanded and peer reviewed abstract from the Exxon Valdez Oil Spill Symposium, Feb. 1993.
- Braddock, J.F., J.E. Lindstrom, T.R. Yeager, B.T. Rasley, G. Winter and E.J. Brown. 1993. Microbial activity in sediments following the T/V *Exxon Valdez* oil spill. Expanded and peer reviewed abstract from the *Exxon Valdez* Oil Spill Symposium, Feb. 1993, Anchorage, AK.
- Braddock, J.F., M. O'Malley and B.T. Rasley. 1991. Hydrogen utilization in *Thiobacillus ferrooxidans*. *In* Abstracts of the American Society for Microbiology 91st Annual Meeting, Dallas, TX, May 1991.
- Brown, E.J. and J.F. Braddock. 1990. Microbial activity in marine sediments off the South Coast of Alaska after the *Exxon Valdez* oil Spill. Invited paper for a special oil symposium at the 90th Annual Meeting of the American Society for Microbiology, Anaheim, CA, May 1990, May 1990.
- Brown, E.J. and J.F. Braddock. 1989. How phosphate pulses alter species composition in carbon-limited aquatic systems. Abstract # P-11-10 from the Fifth International Symposium on Microbial Ecology, Kyoto, Japan.

- Braddock, J.F. and E.J. Brown. 1989. Competition between a yeast, *Rhodotorula rubra*, and a green alga, *Selenastrum capricornutum*, for phosphorus pulses in phosphate-limited cultures. Abstract from the American Society of Limnology and Oceanography 52nd Annual Meeting, Fairbanks, AK.
- Braddock, J.F. and E.J. Brown. 1989. Competition between two aquatic microorganism for oscillating supplies of phosphorus. Abstract from the American Society for Microbiology Annual Meetings, New Orleans, LA.
- Braddock, J.F. and E.J. Brown. 1988. Competition between aquatic microorganisms for oscillating supplies of phosphorus. Abstract from the 39th Alaska Science Conference, Fairbanks, AK.
- Braddock, J.F. and E.J. Brown. 1987. Microplankton competition for oscillating concentrations of phosphorus. Abstract from the American Society of Limnology and Oceanography 50th Annual Meeting, Madison, WI.
- Forshaug, J.M., H.V. Luong, E.J. Brown. 1983. Iron-limited growth kinetics of *Thiobacillus ferrooxidans*. Abstract from the Third International Symposium on Microbial Ecology, East Lansing, MI.
- Luong, H.V., J.M. Forshaug and E.J. Brown. 1983. Geomicrobiology of arsenic. Proceedings of the 34th Alaska Science Conference, Whitehorse, Yukon.
- Forshaug, J.M., H.V. Luong and E.J. Brown. 1982. The role of *Thiobacillus ferrooxidans* in the arsenic cycle in interior Alaska. Abstract from the 33rd Alaska Science Conference, Fairbanks, AK.
- Luong, H.V., J.M. Forshaug and E.J. Brown. 1982. Arsenic mine drainage. Abstract from the American Society for Microbiology Annual Meetings, Atlanta, GA.
- Forshaug, J.M. and E.J. Brown. 1981. Biogeochemical aspects of arsenic mobilization associated with gold mining in interior Alaska. Abstract from the 32nd Alaska Science Conference, Fairbanks, AK.

Grants Funded

- Food preparation and marketing for Alaskan consumers. U.S. Department of Agriculture, co-P.I. with Charles Crapo, \$286,128 (my portion \$30,312). October 2003 to September 2005.
- Microbial efficacy of the Valdez Marine Terminal biological treatment facility, Payne environmental, P.I., \$9,000, November 2003 to March 2005.
- Molecular characterization of the lux operon of *Photobacterium phosphoreum* isolated from Yukon River, Alaska salmon. Alaska EPSCoR Seed Grant, P.I., \$4,700, July 2003 to March 2004.
- Luminescent bacteria: a new water quality issue? U.S. Geological Survey through the Water and Environmental Research Center, University of Alaska Fairbanks, P.I., \$27,463, March 2002 to February 2004.
- Characterization of luminous bacteria from Yukon River salmon. UA Natural Resources Fund, P.I., \$19,415, May 2002 to May 2003.
- Characterization of luminous bacteria from Yukon River salmon using *luxA* probes. Alaska Sea Grant, P.I., \$14,339, January 2002 to December 2002.
- Biodegradation Analysis, Kent and Sullivan, Inc., P.I., \$3,000, July 2001 to October 2001.

Biodegradation potential of petroleum hydrocarbons in Beaufort Sea sediments: assessment of long-range impacts of oil spills, Oil Spill Recovery Institute, P.I., \$24,500, July 2000 to June 2001.

Faculty Development Travel Grant, University of Alaska Fairbanks, \$1,500, May 2001

Support services for 15th Annual International Conference on Contaminated Soils and Water, U.S. Army Cold Regions Research and Engineering Laboratory, P.I., \$2,600, Sept. 1999 to November 1999.

Chemically-dispersed oil at sea: the effect on polycyclic aromatic hydrocarbon and alkane degrader populations and activities, Alaska Department of Environmental Conservation, P.I., \$20,000, July 1999 to June 2000.

Microbial assessment and monitoring at the former Deadhorse Hotel site, Shannon and Wilson, Inc., P.I., \$50,000, June 1999 to October 2004.

Petroleum hydrocarbon degrading microbial communities in Beaufort Sea sediments, Coastal Marine Institute (Minerals Management Service), co-P.I. with J.E. Lindstrom, \$ 111,860 , June 1999 to May 2002.

In situ Gibbs free energies for hydrogen oxidizing terminal electron-accepting processes in contaminated subarctic ground water, Water and Environmental Research Center, P.I. with S. Richmond, \$27,716, March 1999 to February 2001.

Biodegradation of Dispersed Oil Using Corexit 9500, Alaska Department of Environmental Conservation, P.I. with J. Lindstrom and D. White, \$60,538, September 1998 to June 1999.

Toxicity of Weathered, Dispersed Oil to Alaskan Marine Organisms, Alaska Department of Environmental Conservation, P.I. with C. Behr-Andres and R. Perkins, \$149,404, September 1998 to June 1999.

Ultra-low Temperature Storage for Biological Preservation, Mapco, P.I. with Perry Barboza, \$7,000, January 1998 to January 1999.

Evaluation of Toxicity of Dispersants and Dispersed Oil to Alaskan Marine Organisms. Alaska Department of Environmental Conservation, P.I. with C. Behr-Andres and R. Perkins, \$149,999, October 1997 to March 1999.

Chemical Analysis of *Clusia* Anti-Microbials. President's Special Projects Fund, University of Alaska. P.I. with J. Loquvam, \$1,000, February 1997 to December 1997.

Bioremediation Study of Diesel-Contaminated Gravel at Toolik Lake Field Station. Toolik Field Station. P.I., \$66,332, September 1996 to September 1999.

Natural Attenuation of Contamination at Ft. Wainwright, Alaska: A Hydrogeochemical and Microbiological Investigation of Surface-Water/Ground-water Interaction, their Influence on the Fate of Organic Contaminants in Ground Water, and Implications for Site Remediation. U.S. Army, co-P.I. with L. Hinzman (P.I), M. Lilly and S. Leake, \$396,000, August 1996 to May 1998.

Hydrocarbon Monitoring: Integration of Microbial and Chemical Data. *Exxon Valdez* Restoration Project, co-P.I. (with Bret Luick), \$81,500, April 1995 to June 1997.

Water Resources Research Institute Internship. U.S.G.S., Water Resources Division, P.O., \$9,681, June 1996 to September 1996.

Biodegradation of Petroleum Contaminants in Soils at the Naval Arctic Research Laboratory, Barrow, Alaska. U.S.G.S., Water Resources Division, P.I., \$57,200, August 1994 to March 1997.

Structure and Function of the Biosurfactant from *Pseudomonas aeruginosa*. U.S.G.S. through Water Research Center, P.I., \$7,460, Sept. 1994 to Sept. 1995.

Microbial Degradation of Aromatic Hydrocarbons in Marine Sediments. Coastal Marine Institute, MMS, P.I., \$75,000, July 1994 to June 1997.

Microbial Ecology of Subarctic Soils: the Key to Successful Land Reclamation for Alaska's Resource Industries. UA Natural Resources Fund, P.I., \$22,387, May 1994 to Dec. 1995.

Biodegradation of Hydrocarbon Contaminants. U.S.G.S. through Water Research Center, P.I., \$9,500, Sept. 1993 to Sept. 1994.

Biodegradation of Petroleum Contaminants in Soils at the Naval Arctic Research Laboratory, Barrow, Alaska. U.S.G.S., Water Resources Division, P.I., \$14,164, August 1993 to March 1994.

Evaluation of the Effectiveness and Impacts of PES-51: Remediation of a Contaminated Beach. Tesoro Alaska Petroleum co- P.I. with M. Tumeo, \$32,400, June 1993 to June 1994.

Monitoring Microbial Populations in Marine Sediments as Indicators of Environmental Disturbance and Restoration. Oil Spill Restoration Planning Office, P.I., \$62,400, April 1993 to Feb. 1994.

Hydrogen Utilization by *Thiobacillus ferrooxidans* Isolated from Neutral pH Mine Drainage (year 2). U.S.G.S. through Water Research Center, P.I., \$29,058, Sept. 1990 to Sept. 1992.

Oil Spill Microbiology, Alaska Department of Environmental Conservation, P.I. with E.J. Brown, \$90,923, July 1991 to June 1992.

Damage Assessment Microbiology, Alaska Department of Environmental Conservation, P.I. with E.J. Brown, \$81,018, June 1990 to June 1991.

Bioremediation Monitoring Program, Alaska Department of Environmental Conservation, co-P.I. with E.J. Brown, \$81,600, July 1990 to June 1991.

Bioremediation Research Program, Alaska Department of Environmental Conservation, co-P.I. with E.J. Brown, \$74,400, July 1990 to June 1991.

Bioremediation Monitoring Program, Exxon Corporation, co-P.I. with E.J. Brown, \$32,000, July 1990 to Dec. 1990.

Damage Assessment-- *Exxon Valdez* Oil Spill, Alaska Department of Environmental Conservation, co-P.I. with E.J. Brown, \$75,000, March 1990 to Sept. 1990.

Oil Spill Microbiology, Alaska Department of Environmental Conservation, P.I. with E.J. Brown, \$47,545, October 1989 to July 1990.

Microbial Hydrocarbon Degradation in Sediments Impacted by the *Exxon Valdez* Oil Spill, Science Applications International Corporation (contract to National Oceanic and Atmospheric Administration), co-P.I. with E.J. Brown and J. Lindstrom, \$132,311, May 1989 to December 1989.

TEACHING EXPERIENCE

Undergraduate (two courses per year; full course responsibility)

Microbiology- BIOL 342 (4 credits), Women and Science- BIOL 450 (3 credits), Advanced Microbiology- BIOL 442/642 (4 credits), Microbial Ecology- BIOL 443 (3 credits).

Research Projects by Undergraduates:

- 2003: EPSCoR Undergraduate Research Project, Nathan Adams
1997: NSF Research Experiences for Undergraduates, Andrew Gilbert
1995: EPA Undergraduate Research Intern Program for Minority Students, Martin Bidartondo
Senior Honors Theses, Marian Ruth and Martin Bidartondo
1994: Senior Honors Thesis, Brian Accola
1993: NSF Research Experiences for Undergraduates student, Stacey Eaton
Senior Honors Thesis, Tracey Papenfuss
1992: NSF Research Experiences for Undergraduates student, Zachary Richter

Graduate Student Advising:

Graduate Chair for:

Ph.D.

- Richard Smith, Biochemistry and Molecular Biology. Dissertation topic: Structure and Function of the Extracellular Protein of *Pseudomonas aeruginosa*. Graduated May 1996.
Jon Lindstrom, Biology. Dissertation topic: Microbial Ecology and Long-Term Persistence of Crude Oil in a Taiga Spruce Forest. Graduated August 1997.
John Lokvam, Biology. Dissertation topic: Chemo-ecological and Evolutionary Aspects of the Pollinator Reward System in *Clusia gradiflora* (Clusiaceae). Graduated August 2000.
Sharon Richmond, Biology. Dissertation topic: Natural Attenuation of Chlorinated Solvents in Subarctic Groundwater. Graduated May 2001.

M.S.

- Lee Nix, Environmental Quality Engineering. Thesis Title: An Examination of the Potential for Amelioration of Acid Mine Drainage Using Competitive Microbial Substrate. Graduated December 1993.
Sharon Moore, Environmental Quality Science. Thesis Title: Hydrocarbon Utilization by Microbial Isolates from Cold Weather Ecosystems. Graduated August 1994.
Dave Guinn, Environmental Quality Engineering (co-chair). Thesis Title: Feasibility of Using Indigenous Microorganisms for Bioremediation of Penta-chlorophenol Contaminated Soil in Southcentral Alaska. Graduated August 1995.
Chris Kjellmark, Environmental Quality Science. Thesis Title: Eielson Air Force Base Subarctic Bioventing Project. Graduated May 1998.
Jeff Estensen, Biology and Wildlife. Thesis Title: Effects of Over-Winter Vertebrate Browsing on Utilization of Dissolved Organic Carbon by Microbes. Graduated May 2001.
Kathleen Gannon, Environmental Chemistry. Thesis Title: Petroleum hydrocarbon degrading microbial communities of Arctic Ocean sediment. Graduated August 2002.
Kevin Budsberg, Biological Sciences. Thesis topic: Characterization of Luminescent Bacteria. Graduated May 2004.
Jessica Garron, Biological Sciences. Thesis topic: Microbial communities in oil-contaminated soil. Graduated May 2007.

M.A.

- Qiaofei Zheng, Chemistry. Project Title: A Study of Cyanide-Degrading Microorganisms from Alaska Mining Wastewater. Graduated May 1993.
Carl Rebstock, Marine Environmental Studies. Project Title: Evaluating Microbial Capability to Degrade Petroleum. Graduated August 1997.

M.A.T.

Jacqueline Meumann. No project or thesis. Graduated May 2000.

Other

Emy Monroe, M.S., Environmental Studies, Univ. of Northern Iowa (co-chair), graduated December 1995. Zachary Richter, M.S., Environmental Studies, Univ. of Northern Iowa (co-chair), graduated August 1996.

HONORS

American Society for Microbiology, Chair-elect, Division Q, 2003-2004; Chair, Division Q, 2004-2005.
Sabbatical, University of Alberta, Edmonton, Alberta, 2001-2002
Award for Service to the Alaska High School Science Symposium, April 2001
Nominated by the State of Alaska for the National Academy of Sciences Committee on the Environmental Effects of Oil and Gas Development on the North Slope in Alaska, August 2000
Receipt of Faculty Productivity Adjustment, July 1996 and July 1998.
Nominated for membership of the Arctic Research Commission, July 1996
Nominated for Usibelli Distinguished Teaching Award, 1994
Phi Kappa Phi
Teaching Excellence, Academic Excellence Week at UAF, 1993, 1994, 1995 and 1996.
Sigma Xi
Graduate Resource Fellowship, 1981 and 1982.
Druska Carr Schaible Memorial Award (for outstanding Biological Sciences major), 1977

Invited Talks

Annual Women Faculty Luncheon, Fairbanks, AK, September 2006
International Conference on Alpid and Polar Microbiology, Innsbruck, Austria, March 2006
International Conference on Arctic Microbiology, Rovaniemi, Finland, March 2004
4th International Conference on Contaminants in Freezing Ground, Fairbanks, AK, May 2004. Plenary Speaker
Minerals Management Service Information Transfer Meeting, Anchorage, AK, March 2003
Barrow Arctic Research Consortium public lecture, Barrow, AK, November 2002
Alaska Women in Higher Education Conference "Leadership for the New Millennium" panelist, Anchorage, AK, September 2002
University of Toronto, Toronto, Ontario, March 2002
University of Wyoming, Laramie, Wyoming, October 2001
University of Alberta, Edmonton, Alberta, October 2001
Assessment and Remediation of Contaminated Sites in Arctic and Cold Climates, Edmonton, Alberta, May 2001
Minerals Management Service 8th Information Transfer Meeting, Anchorage, AK, April 2001
Minerals Management Service, Anchorage, AK, September 2000
15th Annual International Conference on Contaminated Soils and Water, Amherst, MA, October 1999
Minerals Management Service, 7th Alaska OCS Region Information Transfer Meeting, Anchorage, AK, January 1999
Kachemak Bay Conference, Homer, AK, April 1998.
University of Bayreuth, Bayreuth, Germany, December 1997
Minerals Management Service Information Transfer Meeting, Anchorage, AK, September 1997
U.S. Geological Survey Water Quality Class, Anchorage, AK, January 1997
Alaska Water Management Assn/Alaska Section American Water Works Assn Conference, Fairbanks, AK, May 2004
Alaska Geographical Society Bioreclamation Workshop, Anchorage, AK, April 1994
ARCO Alaska Soils Workshop, Anchorage, AK, October 1993

BP Soil Remediation Conference, Anchorage, AK, November 1992

Symposia Chaired

Degradation of Contaminants in Extremely Cold Environments. 102nd Annual Meeting of the American Society for Microbiology. Salt Lake City, UT, May 2002. Co-convener and co-chair.

SERVICE

Review Panels

National Sciences and Engineering Research Council (NSERC) of Canada Research Networks Selection Committee, 2003-2004

National Science Foundation IGERT Program Review Panel Member. Fall 2002

National Research Council Committee to Review the Oil Spill Recovery Institute's Arctic and Subarctic Research Programs: January 2002-December 2002.

National Science Foundation Graduate Research Fellowships Review Panel Member: Spring 2002

Site Visit for the National Sciences and Engineering Research Council (NSERC) of Canada: October 2001

Site Visit for the National Sciences and Engineering Research Council (NSERC) of Canada: January 2000

National Science Foundation IGERT Program Review Panel Member: Fall 2000

Ad Hoc Reviewer for:

National Sciences and Engineering Research Council of Canada

National Science Foundation

Joint Infrastructure Fund of the Wellcome Trust

Alaska Science and Technology Foundation

Department of Agriculture

Sea Grant Program

Applied and Environmental Microbiology

Environmental Science and Technology

Canadian Journal of Microbiology

Canadian Journal of Soil Science

Journal of Industrial Microbiology

Journal of Soil Contamination

Arctic and Alpine Research

Bioremediation Journal

Environmental Pollution

Polar Biology

Journal of Environmental Quality

Chemosphere

Advances in Environmental Research

Water, Air and Soil Pollution

Department of Agriculture

Cold Regions Science and Technology

Polar Record

Marine Environmental Research

Saunders College Publishing (lab manual chapter)

Harcourt Brace College Publishers (lab manual chapter)

Service to Professional Societies

Chair, Division Q, American Society for Microbiology (2004-2005)
Vice Chair, Division Q, American Society for Microbiology (2003-2004)
Councilor (2002-2004), American Society for Microbiology
Annual Meeting Organizational Committee (1999), American Association for the Advancement of
Science, Arctic Division
Chair, Organization Committee (1998), for Branch meeting of the American Society for Microbiology
Annual Meeting.
President (1997-1998), Treasurer (1993-1994), for Alaska Branch of the American Society for
Microbiology
Councilor (1994-1996 and 1998-2000), American Society for Microbiology
Secretary/Treasurer (1996-1998), Phi Kappa Phi, Alaska Chapter

Major University/Community Service

Search Committee Chair for the Vice Chancellor for Administrative Services (2006-2007)
Search Committee Chair for Dean of the College of Engineering and Mines (2004-2005)
Search Committee Chair for Director of the Academic Advising Center (2004)
Associate Director, Institute of Arctic Biology (2002-2003)
Inland Northwest Research Alliance University Programs Coordinator (2002-2004)
UA Intellectual Property Committee (2002-2005)
UA Research Advisory Committee (2002-present)
UAF Inquiry/Investigation Committee (2002-2003)
Graduate Dean and Vice Provost for Academic Affairs Search Committee (2002-2003)
Editor-In-Chief, UA Press Search Committee (2002-2003)
Chair, Physiology Search Committee, Dept. of Biology and Wildlife (2002-2003)
Department Chair, Dept. of Biology and Wildlife (1999-2001)
Graduate Program Coordinator, Dept. of Biology and Wildlife (1999-2001)
Vice President of Research (Statewide) Search Committee (2000-2001)
Institute of Arctic Biology Director Search Committee (2000-2001)
Honors Council (1998-present)
Chair of Committee to Elect Honorary Degrees and Commencement Speakers (1997-1999; member
1993-2001)
College of Sciences Engineering and Mathematics Dean Search Committee (1998-1999)
Chair Biology/Wildlife Master's Comprehensive Exam Committee (1997-1999)
UAF Library Director Search Committee (1997-1998)
Faculty Senate (1995-1997)
Athletic Director Search Committee (1993-1994)
Various Faculty Search Committees (1992-present)
Academic Advising Center Faculty Advisor (1992-1994)
Life Sciences Seminar Speaker Coordinator (1991-1992)
Chair College of Natural Sciences Curriculum Council (1993-1996)
UA Press Editorial Board (1998-present)
Arctic Monitoring and Assessment Program Second Phase Expert (2000-2004)
Eielson Air Force Base Technical Review Committee for Superfund Cleanup (1992-1999)
Fairbanks North Star Borough Groundwater Task Force (1991-1993)
Mentor for High School Science Research Projects (1992-2003; 1-2 per year)