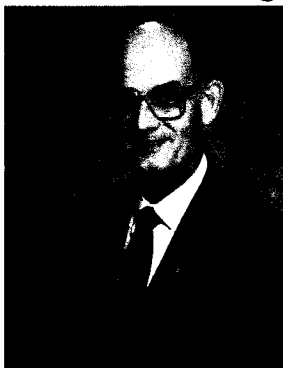


JOSEPH C. GREENE

Research Biologist



Greene Environmental Services



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Summary of Experience

Over 30 years of national and international professional experience including consulting, research, and teaching for industry and government regulatory agencies. Activities included project management, contract administration, experimental design, preparation of research reports and technical documents, laboratory supervision, statistical analysis of data, computer simulation, development and application of biological methods, and performance of algal growth potential and aquatic and terrestrial toxicity tests.

Consulting experience included assessment of nutrient pollution in freshwater canals and rivers, assessment of heavy metals toxicity from mining activities and paint stripping, investigation of toxicity and bioaccumulation in soils at a military facility, evaluation of water soluble toxicants at Superfund sites, and assessment of algal toxicity from textile dyes.

Research activities included establishment of an ecotoxicology laboratory, development of a biological-chemical-physical protocol for measuring potential toxicity of construction materials, development of internationally standardized test methods (aquatic algae, aquatic macroinvertebrate, terrestrial plant and terrestrial invertebrate), chairman of testing committees for ASTM and Standard Methods, platform chairman of several international symposiums, workshops, and congresses, and invited speaker to numerous national and international professional scientific meetings.

Teaching experience included a number of short courses and workshops on performance of algal growth potential and interpretation of results across the nation, a workshop on environmental analysis techniques in Europe, a workshop on complex problems with point and non-point sources of water contamination for the US Department of the Interior, and an environmental engineering graduate seminar on toxicity testing for environmental engineering applications.

Government agencies experience included project management, experimental design, hands-on research, data analysis, and report writing.

Employment History

US Environmental Protection Agency (EPA), Terrestrial Processes & Effects	10/1994 - 06/2002
Oregon State University, Corvallis, OR (OSU)	10/1990 - 02/1997
US Environmental Protection Agency (EPA), Ecotoxicology Branch	10/1988 - 09/1990
US Environmental Protection Agency (EPA), Terrestrial Toxicology	10/1987 - 09/1988
US Environmental Protection Agency (EPA), Hazardous Waste & Water	10/1985 - 09/1987
US Environmental Protection Agency (EPA), Hazardous Material Team	10/1981 - 09/1985
US Environmental Protection Agency (EPA), Freshwater Toxicology	3/1979 - 10/1981
US Environmental Protection Agency (EPA), Special Studies	8/1976 - 03/1979
US Department of the Interior, National Eutrophication Research	6/1969 - 07/1976

US EPA, Terrestrial Processes & Effects Team- Research Biologist (Retired June 2002).

Responsibilities include development of weather data sets for sites throughout the Western United States for simulating the effects of changes in CO₂ and ozone concentrations on global climate changes. Activities include performing data parameterization, sensitivity analysis, field studies, and computer simulations using the TREGRO model for ponderosa pine and Douglas fir.

Oregon State University, Dept of Civil Engineering- Adjunct Professor / Research Biologist (6-years). Developed an ecotoxicology research program to evaluate environmental contamination, nutrient pollution in surface waters, and standardized testing methodologies. This effort included the establishment of two modern ecotoxicology laboratories encompassing three temperature controlled environmental chambers, electronic particle counters, fluorometers, microscopes, a high-speed refrigerated ultracentrifuge, and high capacity commercial refrigerated storage. The facilities are used for the performance of aquatic and terrestrial toxicity tests such as: terrestrial acute toxicity tests and bioaccumulation in earthworms cultured in site soils; 48-static acute freshwater macroinvertebrate toxicity tests; 96-hour static chronic freshwater algal toxicity tests. 48-hour in-situ, acute marine mysid toxicity tests, Microtox toxicity tests; and SOS Chromotests. Research projects included ecotoxicology investigations involving the Burnt Fly Bog Superfund Site, Marlboro, NJ; Cannelton Superfund Site, Saulte Ste. Marie, MI; Camp Pendleton Marine Base, San Diego County, CA; Black Point Canals, Dade County, FL; Lower Granite Reservoir, Snake River, WA; and, near Kelly Boatworks, Coos Bay, OR. Project proponents included The US EPA, US Army Corps of Engineers, National Academy of Sciences (TRB), CH₂M-Hill, Jacobs Engineering Group, Ciba-Geigy Corporation,

Metropolitan Dade County Florida, Oregon Department of Environmental Quality, and the City of Corvallis, OR.

Research activities have resulted in numerous publications, peer reviewed journals, book chapters, conference proceedings, manuals, research reports, and consultation to the Canadian Association of Petroleum Producers and Environment Canada. The published research has been recognized and has resulted in national and international invitations to professional conferences and workshops.

US EPA, Ecotoxicology Branch- Research Biologist (2-years)

Responsibilities included project management for investigations of Superfund sites including: Drake Chemical, Loch Haven, PA; California Gulch, Leadville, CO. Activities included test design, statistical data analysis, and report writing.

US EPA, Terrestrial Toxicology- Biologist (1-year)

Responsibilities included project management for an investigation of toxicity at the United Chrome, Superfund Site, Corvallis, OR and a surface water pollution investigation of the Red River of the North for the International Red River Pollution Board. Activities included test design statistical data analysis, and report writing.

US EPA, Hazardous Waste & Water Branch- Biologist (2-years)

Responsibilities included project management for an investigation of toxicity at the largest Superfund Site in the US, Clark Fork River and Silver Bow Creek, MT, the Cabot/Carbon Superfund Site, Gainesville, FL, and Sapp Battery Superfund Site, FL. Activities included test design, statistical data analysis, and report writing.

US EPA, Hazardous Materials Team- Biologist (4-years)

Responsibilities included project management for an investigation of toxicity at the Rocky Mountain Arsenal Superfund Site, Denver, CO; Aberdeen Arsenal, MD; Sunflower Arsenal, KS; H&L Landfill, IL; and United Chrome Superfund Site, OR. Activities included test design, statistical data analysis, and report writing.

US EPA, Freshwater Toxicology- Biologist (2-years)

Responsibilities included project management for an investigation of surface water quality (toxicity and nutrient pollution) in: Lake Mead, NV; Zumbro Lake, MN; and Lake Pend Oreille, ID. Special research projects included investigations of the toxicity of Dimilin and Dimethyl Foramide to algae. Activities included test design, statistical data analysis, and report writing.

US EPA, Special Studies Branch- Biologist (3-years)

Responsibilities included an investigation of nutrient pollution (Eutrophication) in Shagawa Lake, MN; the Snake and Columbia River systems of ID, WA, and OR. A laboratory investigation was performed to determine the sensitivity of the green algae *Selenastum capricornitum* to zinc in the presence of EDTA and phosphorus. Activities included test

design, statistical data analysis, and report writing.

US EPA, National Eutrophication Research Program- Biologist (7-years)

Responsibilities included an investigation of nutrient pollution (Eutrophication) in: the South Fork Coeur d'Alene River, ID; Lake Coeur d'Alene, ID, the Spokane River, ID; Long Lake, WA; and 49 lakes throughout the United States. The objective of these studies was to test surface water samples and validate the results obtained from the performance of the Algal Growth Potential (AGP) laboratory assay. Investigations included: comparison of the indigenous algal biomass to that grown in the AGP laboratory tests; AGP yields in surface waters containing toxic concentrations of zinc; development of coefficients for the prediction of algal yields based upon chemical analysis of the growth limiting nutrient (nitrogen or phosphorus). These studies formed the basis of the U.S. EPA standard method for biologically measuring algal growth potential (nutrient pollution) in surface waters.

Professional Societies

- Society of Environmental Toxicology and Chemistry (*Charter member*), 1980-1997
- American Society for Testing and Materials, 1978-1997
- Pacific NW Society of Environmental Toxicology and Chemistry (Charter Member), 1990-1997.
- Hazardous Materials Control Resources Institute, 1992-1995.
- Water Environment Federation, 1992-1995

Professional Recognition

- Sigma Xi, the Scientific Research Society;
- Intergovernmental Personnel Act (IPA) exchange with Oregon State University, Department of Civil Engineering, Western Regional Hazardous Substance Research Center, 1990-1994;
- Courtesy Faculty Appointment, Adjunct Professor, Oregon State University, Department of Civil Engineering, 1990-1997.

Committees, Commissions and Boards

- Joint Task Group Chairman, American Public Health Association, Standard Methods for the Examination of Water and Wastewater, Committee on Part 8111, Biostimulation (Algal Productivity) 1995-1997;
- Scientific Advisory Group Member, Canadian Association of Petroleum Producers, Testing of Toxicity Based Methods to Develop Site-Specific Cleanup Objectives, 1993-1994;
- Member, Middle Snake River (Idaho) Nutrient Management Technical Advisory Committee, 1992-1994;
- Chairman, American Society for Testing and Materials, Task Group for a Proposed Standard Guide for Conducting Static Chronic 96-h Toxicity tests on Hazardous Chemical Wastes Using the Freshwater Alga *Selenastrum capricornutum*, 1990-1991;
- Co-Chairman, American Society for Testing and Materials, Task Group for a Proposed Standard Guide for Conducting Seed Germination and Root Elongation Soil Elutriate

- Chronic Toxicity Bioassays, 1990-1993;
- Co-Chairman, American Society for Testing and Materials, Task Group for a Proposed Standard Guide for Conducting Seedling Emergence Toxicity Tests in Soils or Sediments from Hazardous Waste Sites, 1990-1993;
 - Member, Organization for International Standards (ISO), Technical Advisory Group for the United States, International Standards Committee, Technical Committee 147 for Water Quality, Subcommittee 5 for Aquatic Toxicology, 1988-1993;
 - Chairman, American Society for Testing and Materials, Task Group for A Standard Guide for Conducting Static 96-Hr Toxicity Tests with Micro algae, 1987-1990;
 - Reviewer, Journal of the Society of Environmental Toxicology and Chemistry (SETAC), 1987-1990;
 - Reviewer, Acute Lethality Test Method Documents, Environment Canada, Conservation and Protection, Ottawa, Ontario, Canada, 1989;
 - Reviewer, Archives of Environmental Contamination and Toxicology, 1985-1990.
 - Reviewer, Journal of Water, Air and Soil Pollution, 1974-1985;
 - Chairman, American Society for Testing and Materials, Committee on A Standard Practice for Algae Growth Potential Testing with *Selenastrum capricornutum*, 1977-1981;
 - Chairman, American Public Health Association, Standards for the Examination of Water and Waste Water, Task Committee on Part 802, Biostimulation (Algal Productivity), 1977-1981;
 - Chairman, American Public Health Association, Standards for the Examination of Water and Waste Water, Task Committee on Part 803, Toxicity Testing with Phytoplankton, 1977-1981.

Technical Advisor to Environment Canada

- Member Environment Canada's External Advisory Committee on Development of Guidance Document for Environmental Toxicological Data Interpretation and Application, 1993-1994;
- External reviewer for the "Toxicity Data Interpretation and Application Guidance Manual in support of the Environment Canada Steering Committee, 1993-1994
- Provide an International Review of toxicity bioassay protocols for use in the assessment of contaminated sites under the Canadian Governments National Contaminated Sites Assessment Program, 1991-1993;
- Member, Canadian Intergovernmental Aquatic Toxicity Group Subcommittee, Microplate Growth Inhibition test Using *Selenastrum capricornutum*, Environment Canada 1990-1992;
- Waste Management Division, Ottawa, Ontario. Participation led to an agreement to include a waste extraction procedure for hazardous wastes with a biological testing component included, 1986-1993;
- Oil, Gas and Energy Division, Ottawa, Ontario, Technical advisor to Environment Canada and the Canadian Petroleum Association, Participation led to a procedure for determining the character and environmental hazard of natural gas processing industrial waste sludge which includes a biological testing component, 1986-1992;

Awards

- Technical Contribution Award, U.S. Environmental Protection Agency, Environmental Research Laboratory, Corvallis OR., 1988;
- Nomination for the Scientific and Technological Achievement Award for the research publication "Comparative Toxicology of Laboratory Organisms for Assessing Hazardous Waste Sites," U.S. Environmental Protection Agency, Office of Research and Development, Washington, DC, 1987;
- Nominated for The Gold Medal for Scientific Achievement, U.S. Environmental Protection Agency, Office of the Administrator, Washington. D.C., 1979;
- Special Achievement Award for Noteworthy Contribution in the Environmental Protection Agency, Environmental Research Laboratory, Corvallis, OR., 1979;
- Special Service Award for Special achievement in the Environmental Protection Agency, Environmental Research laboratory, Corvallis, OR, 1977;
- Special Achievement Award, U.S Environmental Protection Agency, Environmental Protection Agency, Corvallis, OR, 1974.

PUBLICATIONS

Books and Book Chapters

- Application of Recommended Whole Organism Bioassays in the Assessment of Contaminated Sites in Canada.* (with C. Keddy and M. A. Bonnell), Environmental Protection Service, Environment Canada, Ottawa, Ontario, Canada. 1996.
- Evaluation of Hazard Potential of Chemicals and Chemical Wastes Through the Use of Toxicity Bioassays*, In: **Pollution and Biomonitoring**, ed. Dr. B.C. Rana, Tata McGraw-Hill Publishing Company, Ltd., New Delhi, India, ISBN 0-07-462351-6. 1995. pp. 101-116.
- A Review of Whole Organism Bioassays for Assessing the Quality of Soil, Freshwater Sediment and Fresh Water in Canada*, (with C. Keddy and M. A. Bonnell), Scientific Series No. 198, Ecosystem Conservation Directorate, Evaluation and Interpretation Branch, Environment Canada, Ottawa, Ontario, Canada. (ISBN 0-662-22155-9), March 1994, 185 pages.
- Biological and Chemical Evaluation of Remediation Performed on Metal Bearing Soils*, (with J.J. Barich, III), In: **Tailings and Mine Waste '94**, ed. A.A. Balkema, A.A. Balkema Publishers, Brookfield, VT, ISBN 90 5410 3647, 1994, pp. 157-166.
- The Toxicological Assessment of Remedial and Restoration Techniques*, (with J.J. Barich and S.A. Peterson), In: **International Seminar on Nuclear War and Planetary Emergencies, 14th Session: Innovative Technologies For Cleaning The Environment: Air, Water and Soil.** ed. A. Zichichi, 1993, pp. 221-233.
- Biological Assessment of Toxicity Differences in Survival for Four Organisms Cultured in Sodium Acetate Leaching Media and Elutriates of Municipal or Industrial Waste Leached with De-ionized Water or Sodium Acetate Leaching Media*, (with S.A. Peterson and W.E. Miller), In: **Symposium on Waste Testing and Quality Assurance: ASTM STP 1062** (D. Friedman ed.). American Society for Testing and Materials, Philadelphia, 1990 [INVITED].
- Protocols for Short Term Toxicity Screening of Hazardous Waste Sites*, (with C. L. Bartels, W.J. Warren-Hicks, B.R. Parkhurst G.L. Linder, S.A. Peterson, and W.E. Miller), U.S.

Environmental Protection Agency, Environmental Research Laboratory, Corvallis, OR., EPA/600/3-88/029, 1988.

Early Plant Development and Plant Toxicity Assessments: Seed Germination and Root Elongation Tests, (with G. Linder, C. Bartels, S. Nwosu, S. Smith, D. Wilborn and H. Ratsch), **1st Symposium on the Use of Plants for Toxicity Assessment**, American Society for Testing and Materials, Atlanta, GA., 1989.

Limnological Studies of Zumbro Lake and the Application of Quantitative Techniques to Control the Sources of Cultural Eutrophication, (with J.G. Schilling and C.N. Affeldt), In: **Surface Water Impoundments**, (H.G. Stephen, ed.) American Society of Civil Engineering, New York, 1982.

Bibliography of the Literature Pertaining to the Genus Selenastrum, (with A.A. Leishman and W.E. Miller) US Environmental Protection Agency, Environmental Research Laboratory, Corvallis, OR. EPA 600/9-79-021. 1979.

The Selenastrum capricornutum Printz Algal Assay Bottle Test: Experimental Design, Application, and Data Interpretation Protocol, (with W.E. Miller and T. Shiroyama), U.S. Environmental Protection Agency, Environmental Research Laboratory, Corvallis, OR. EPA 600/9-78-018. 1978.

"The Relationship of Laboratory Algal Assays to Measurements of Indigenous Phytoplankton in Long Lake, WA," (with R.A. Soltero, W.E. Miller, A.F. Gasperino, and T. Shiroyama) In: **Biostimulation and Nutrient Assessment**, (E.J. Middlebrooks, D.H. Falkenberg and T.E. Maloney, eds.) Ann Arbor Science, 1976.

Application of Algal Assays to Define the Effect of Waste Water Effluents Upon Algal Growth in Multiple Use River Systems, (with W.E. Miller and T. Shiroyama) In: **Biostimulation and Nutrient Assessment**, (E.J. Middlebrooks, D.H. Falkenberg and T.E. Maloney, eds.) Ann Arbor Science, 1976.

The Algal Growth Responses of Selenastrum capricornutum Prinz and Anabaena flos-aquae (Lyngb.) De Brebisson in Waters Collected from Shagawa Lake, Minnesota, (with W.E. Miller and T. Shiroyama) In: **Biostimulation and Nutrient Assessment**, (E.J. Middlebrooks, D.H. Falkenberg and T.E. Maloney, eds.) Ann Arbor Science. 1976.

Technical Journals

Elevated CO₂ and Temperature Alter the Response of Pinus Ponderosa to Ozone: A Simulation Analysis, (with D.T. Tingey, J.A. Laurence, J.A. Weber, W.E. Hoggsett, S. Brown, and E.H. Lee), *Ecological Applications*, 11(5) 2001, pp1412-1424.

Effects of 50 Textile Dyes on Population Growth of the Freshwater Green Alga Selenastrum capricornutum, (with G.L. Baughman), *Textile Chemist and Colorist*, April 1996.

Review of Whole-Organism Bioassays: Soil, Freshwater Sediment and Freshwater Assessment in Canada, (with C. Keddy and M.A. Bonnell), *Ecotoxicology and Environmental* (In Review) 1995.

How Chemically Stable is Stabilized Hazardous Waste? (with S.A. Peterson and J.J. Barich. III), *Remediation: Journal of Environmental Cleanup Costs, Technologies, and Techniques*, 1992.

Three Studies Using Ceriodaphnia to Detect Non-point Sources of Metals from Mine Drainage. (with D.R. Nimmo, M.H. Dodson, P.H. Davies, and M.A. Kerr), *Research Journal Water Pollution Control Federation*, Vol. 62, Number 1, January/February 1990.

- Use of Selenastrum capricornutum to Assess the Toxicity Potential of Surface and Ground Water Contamination Caused by Chromium Waste*, (with W.E. Miller, M. Debacon, M.A. Long, and C.L. Bartels), J. Environmental Toxicology and Chemistry 7:35-39, 1988.
- The Effect of Secondary Effluents on Eutrophication in Las Vegas Bay, Lake Mead, Nevada*, (with W.E. Miller and E. Merwin), J. Water, Air, and Soil Pollution 29:391-402, 1986.
- Characterization of Chemical Waste Site Contamination and Determination of its Extent Using Bioassays*, (with J.M. Thomas, J.R. Skalski, J.L. Cline, M.C. McShane, J.C. Simpson, W.E. Miller, S.A. Peterson, and C.A. Callahan) J. Environmental Toxicology Chemistry 5:487-501, 1986.
- A Comparison of Three Microbial Assays Used for Measuring Chemical Toxicity*, (with W.E. Miller, M.K. Debacon, M.A. Long and C.L. Bartels). Journal Environmental Quality 14(4):569-574, 1985.
- Use of Laboratory Cultures of Selenastrum, Anabaena, and the Indigenous Isolate Sphaerocystis to Predict Effects of Nutrient and Zinc Interactions Upon Phytoplankton Growth in Long Lake, Washington*, (with W.E. Miller, T. Shiroyama, R.A. Soltero, and K. Putnam), Mitt. Int. Ver. Limnol. 21:372-384, 1978.
- Algal Productivity in 49 Lake Waters as Determined by Algal Assay*, (with W.E. Miller and T.E. Maloney), Water Research 5:667-679, 1974.
- Utilization of Algal Assays to Determine Effects of Municipal, Industrial and Agricultural Waste Water Effluents Upon Phytoplankton Production in the Snake River System*, (with T. Shiroyama and W.E. Miller), J. Water, Air, and Soil Pollution 4:415-434, 1975.

Conference Proceedings

- Selection and Application of Whole Organism Tests in Assessing Toxicity in Soil, Freshwater Sediment and Freshwater Collected from Chemically Contaminated Sites in Canada: Review and Evaluation of Published Procedures*, (with J.J. Barich, III), II Congreso Internacional De Suelos Contaminados, Sociedad Publica Gestion Ambiental, Europa Congress Centre, Vitoria-Gasteiz, Spain, 20-22 September 1994, pages 87-89.
- Evaluation of Bioassays for Their Application in Assessing the Toxicity of Complex Chemical Wastes*, (with J.J. Barich, III), II Congreso Internacional De Suelos Contaminados, Sociedad Publica Gestion Ambiental. Europa Congress Centre, Vitoria-Gasteiz. Spain. 20-22 September 1994 pages 79-82.
- Miniaturization of the 120-Hour Root Elongation Test Used For Measuring Toxicity in Elutriates Prepared from Chemically Contaminated Soils*, (with J.J. Barich, III), II Congreso Internacional De Suelos Contaminados, Sociedad Publica Gestion Ambiental, Europa Congress Centre, Vitoria-Gasteiz, Spain, 20-22 September 1994, pages 95-98.
- Review and Evaluation of Whole Organism Toxicity Tests for Their Selection and Application in Assessing Soil, Freshwater Sediment, and Freshwater Collected from Chemically Contaminated Sites in Canada*, (with M. Bonnell and C. Keddy). Third European Conference on Ecotoxicology, Swiss Institute of Technology, Zurich, Switzerland, 28-31 August 1994.
- A Miniaturized 120-Hour Root Elongation Test for Assessing Toxicity in the Water Soluble Fraction Eluted from Chemically Contaminated Soils*, Third European Conference on

- Ecotoxicology, Swiss Institute of Technology, Zurich, Switzerland. 28-31 August 1994.
- The Toxicological Assessment of Innovative Remedial and Restoration Technologies*, (with S.A. Peterson and J.J. Barich, III), Course Proceedings, Innovative Technologies for Cleaning the Environment: Air, Water, and Soil. Effort Majorana Centre for Scientific Culture, International School for Innovative Technology for Cleaning the Environment. Erice-Trapani, Sicily, Italy, 22- 29 April, 1992 [INVITED].
- "Toxicological Implications of Remediating Hazardous Wastes*, (with S.A. Peterson and J.J. Barich, III), VIII International Conference on Chemistry for Protection of the Environment, Lublin, Poland, September 16-18, 1991, CONF-9109358.
- Toxicological Implications of Remediating Hazardous Wastes*, (with S.A. Peterson and J.J. Barich, III), Sixth International Conference on Bioindication of Regional Deterioration. Ceske Budejovice, Czechoslovakia, September 20, 1991.
- Toxicology Assessment of Hazardous Chemical Wastes*, (with J.J. Barich, III), World Environment International Conference, International Association of Science and Technology for Development, Calgary, Alberta, Canada, April 8-10, 1991 [INVITED].
- Zinc Sensitivity of *Selenastrum capricornutum* in Algal Assay Medium with Various EDTA Concentrations*, (with S.A. Peterson, L. Parrish, and D. Nimmo), Proceedings of the Seventeenth Annual Aquatic Toxicity Workshop, Vancouver, B.C., Canada, November 5-7, 1990, Can. Tech. Report. Fish. Aquatic Sci., No. 1774 (Vol. I.), February, 1991. [INVITED].
- Three Studies Using *Ceriodaphnia* to Detect Non-point Sources of Metals from Mine Drainage*, (with D.R. Nimmo, M.H. Dodson, P.H. Davies, and M.A. Kerr), Water Environment & Technology, 2(1):76, January, 1990.
- Methods to Assess Toxicity in Three Rocky Mountain Streams*, (with D.R. Nimmo, P.H. Davies, G.R. Phillips and R. McConnell), 10th Annual Meeting, Society of Environmental Toxicologists and Chemists, Session on Biological Assessment of Hazardous Wastes in North America, Toronto, Ontario, Canada. 1989 [INVITED].
- Toxicity Evaluations for Hazardous Waste Sites: An Ecological Assessment Perspective*, (with G. Linder), 5th Annual Testing and Quality Assurance Symposium, Washington, DC., 1989.
- Three Case Studies on the Use of *Ceriodaphnia* as Indicators of Water Quality in Western Trout Streams*, (with D.R. Nimmo, M.H. Dodson, R. McConnell and M.A. Kerr), In: Proceeding 23rd Annual Meeting Colorado/Wyoming Chapter of the American Fisheries Society, Fort Collins, CO. 1988.
- Discovery of Toxicants in Colorado and Montana Streams Using Biomonitoring Techniques*, (with D.R. Nimmo, M.H. Dodson, R. McConnell and M.A. Kerr), Special Symposium on Colorado Water Quality, Fort Collins, CO. 1988.
- Comparison of Toxicity Results Obtained for Eluates Prepared from Stabilized and Non-Stabilized Waste Site Soils*, (with J.J. Barich and C.L. Bartels), In: Proceedings of the 5th National Conference on Hazardous Wastes and Hazardous Materials, Las Vegas, NV. 1988.
- Bioactivity Differences of Water and Sodium Acetate Eluate from Municipal and Industrial Wastes*, (with S.A. Peterson and W.E. Miller), In: Proceedings 3rd Animal Solid Waste Testing and Quality Assurance Symposium, Volume I. Washington, D.C. 1987.
- Use of Bioassays to Determine Potential Toxicity Effects of Environmental Pollutants*, (with S.A. Peterson, W.E. Miller and C.A. Callahan), In: Perspectives on Non-Point Source Pollution:

Proceedings of a National Conference. EPA 440/5-85-001, Office of Water Regulations and Standards, Washington, D.C. 1985.

Algal Bioassay techniques for Pollution Evaluation, (with W.E. Miller, E.A. Merwin and T. Shiroyama), In: Seminar on Toxic Materials in the Aquatic Environment, Oregon State University, Water Research Institute, Corvallis, OR. SEMIN WR-024-78, 1978 [INVITED].

Use of Algal Assays to Assess the Effects of Municipal and Smelter Wastes Upon Phytoplankton Production, (with W.E. Miller, T. Shiroyama, R.A. Soltero, and K. Putnam), Proceedings of the Symposium on Terrestrial and Aquatic Ecological Studies of the Northwest, Eastern Washington State College Press, Cheney, WA. 1976 [INVITED].

Use of Algal Assays to Define Trace-Element Limitation and Heavy Metal Toxicity, (with W.E. Miller and T. Shiroyama), Proceedings of the Symposium on Terrestrial and Aquatic Ecological Studies of the Northwest, Eastern Washington State College Press, Cheney, WA. 1976 [INVITED].

Growth Response of Anabaena flos-aquae (Lyngb.) De Brebisson in Waters Collected from Long Lake Reservoir, Washington, (with W.E. Miller, T. Shiroyama and C. Shigihara), Proceedings of the Symposium on Terrestrial and Aquatic Ecological Studies of the Northwest, Eastern Washington State College Press, (Cheney, WA. 1976 [INVITED].

Toxicity of Zinc to the Green Alga Selenastrum capricornutum as a Function of Phosphorus or Ionic Strength, (with W.E. Miller, T. Shiroyama, and E. Merwin), Proceedings of the Biostimulation Nutrient Assessment Workshop, U.S. Environmental Protection Agency, Corvallis, OR. (EPA 660/3-75-034), 1973.

Published Abstracts

Evaluation of the Effects of Forest Management on Water Quality in the South Umpqua Experimental Forest Watersheds, Oregon, (with W.E. Miller, T. Shiroyama, and M. Knittel), American Geophysical Union, Chapman Conference on Nitrogen Cycling in Forested Catchments, Sunriver, OR, September 16-20, 1996.

Effects of Tailings Upstream of Yellowstone's Boundary: The Case Against Copper, (with D.R. Nimmo, M.J. Wilcox, T.D. Lafrancois, P.L. Chapman, and S.F. Brinkman), Conference on Advanced Technologies for Environmental Monitoring and Remediation, Session on Approaches for Measuring, Monitoring, and Assessing Metals in Aquatic Environments Impacted by Mine Wastes, August 2-4, 1996, Denver, CO. USA.

Simulation of the Response of Seedling and Mature Ponderosa Pine to Ozone Exposure Using TREGRO, (with J.A. Weber, C.A. Hendricks, and W.E. Hogsett), Annual Meeting, American Society of Biological Sciences, International Society of Ecological Modeling. Botanical Society of North America, North American Chapter, San Diego, CA, USA, August 1995.

Biomonitors to Assess the Toxicological Liabilities from The McLaren Tailings on Water Quality in Yellowstone National Park, (with D.W.R. Nimmo), International Conference on Environmental Monitors and Hazardous Waste Site Remediation, Munich, Germany, June 19, 1995 [INVITED].

Toxicity Bioassay Applications in Assessing Sites Contaminated with Complex Chemical Wastes, International Conference on Environmental Monitors and Hazardous Waste Site Remediation, Munich, Germany. June 19, 1995 [INVITED].

Standard Bioassessment Techniques: Essential Tools in the Identification of Remedial Measures, with J.J. Barich, III), 13th Annual Meeting, Society of Environmental Toxicologists and Chemists, Session on Biological Laboratory Testing of Contaminated Soils, Sediments, and Solid Wastes, Cincinnati, Ohio, November 11, 1992 [INVITED].

Review of Whole Organism Bioassays for Assessing Soil, Freshwater Sediment, and Freshwater at Contaminated Sites in Canada, (with C. Keddy, M. Bonnell, and M. Wong), 13th Annual Meeting, Society of Environmental Toxicologists and Chemists, Session on Biological laboratory Testing of Contaminated Soils, Sediments and Solid Wastes, Cincinnati, OH., November 8-11, 1992 [INVITED].

Using Biological Testing to Assess Environmental Impacts from the South Dade County Landfill, Homestead Florida, (with D.R. Nimmo, Wilcox, R. Curry, and D.B. Hicks), 13th Annual Meeting. Society of Environmental Toxicologists and Chemists, Session on Biological Laboratory Testing of Contaminated Soils, Sediments, and Solid Wastes, Cincinnati, OH, November 8-11, 1992 [INVITED].

Selection of Bioassay Organisms for Evaluating Toxicity of Hazardous Chemicals, (with C.L. Jones), 12th Annual Meeting Society of Environmental Toxicologists and Chemists, Session on Laboratory Approaches to Biological Assessment of Hazardous Wastes, Seattle, WA., November 3-7, 1991 [INVITED].

Test Organism Selection and Comparison of Toxicity Characteristic Leaching Procedure (TCLP) and Deionized Water Leaching Media, (with C.L. Jones), Responsible Hazardous Materials Management Conference, Portland, OR., September 16-17, 1991 [INVITED].

Seedling Responses to Known Chemicals, Soils and Soil Elutriates from Hazardous Waste Sites, (with J.V. Perino and S.A. Peterson), 11th Annual Meeting, Society of Environmental Toxicologists and Chemists, Session on Laboratory Approaches to Biological Assessment of Hazardous Wastes, Arlington, VA., November 11-15 1990 [INVITED].

Biological Assessment of the Success of Amending Metal Bearing Soils with Natural Zeolite, (with S.A. Peterson and J.J. Barich, III), 11th Annual Meeting, Society of Environmental Toxicologists and Chemists, Session on Laboratory Approaches to Biological Assessment of Hazardous Wastes, Arlington VA., November 11-15, 1990 [INVITED].

*Zinc Sensitivity of *Selenastrum capricornutum* in Algal Assay Medium with Various EDTA Concentrations*, (with S.A. Peterson, L. Parrish and D. R. Nimmo), Proceedings of the Seventeenth Annual Aquatic Toxicity Workshop: November 5-7, 1990, Vancouver, BC., Canada, in: Canadian Technical Report of Fisheries and Aquatic Sciences No. 1774 (Vol. I).

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