

Gerald Sgro

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Research Interests

Diatom-based metrics for analysis of stream and nearshore Great Lakes ecosystems; urban systems; agricultural effects; biota impairment analysis for remedial action plans

Professional Experience

Research Adjunct, John Carroll University. Current research: 1) an evaluation of biotic metrics in urban aquatic systems (funded by the Lake Erie Protection Fund); 2) evaluating effects of precision farming methods on rural headwater streams using algal periphyton metrics (funded by Ohio EPA).

Senior Research Assistant, Cuyahoga River Watershed Project, Cleveland State University, 1997-1998. Responsibilities included supervision of field collection of algal, macroinvertebrate, fish, bacteria, mollusk, and water chemistry samples, and development of project web page (www.csuohio.edu/crwp).

Algal researcher, John Carroll University, 1992 -1997; conducted environmental research funded by the Lake Erie Protection Fund. Skills involved analysis of nutrient chemistry through wet chemistry techniques, operation of ICP-Mass-Spec for metals analysis, collection of in-field water chemistry data, preparation of algal samples and identification to species level for both diatom and non-diatom algae, computer programming in Turbo Pascal for data management, statistical and multivariate analysis of data using Statgraphics, CANOCO and ECOLOGY software.

Secondary level teacher, Earth Science, Physical Science and Life Science; 1974 to 1988; Cleveland Board of Education, the Catholic Diocese of Cleveland and the Hebrew Academy of Cleveland.

Education

Ph.D., Cleveland State University, 1998, Botany
M.S., John Carroll University, 1995, Biology
B.A., Ohio State University; 1969, History

Publications

Sgro, G.V. and J.R. Johansen. In review. Algal periphyton bioassessment methods for Lake Erie estuaries. *J. Great Lakes Res.*

Sgro, G.V. and J.R. Johansen. 1995. Rapid bioassessment of algal periphyton in freshwater streams. Chapter 20 *in*: Butterworth, F.M., L.D. Corkum and J.Guzmán-Rincón (Eds.) *Biomonitoring and Biomarkers as Indicators of Environmental Change: A Handbook*. Plenum Press, New York. p. 290-311.

Reports

Sgro, G.V. 1998. *Ecology of the Algal Communities of Four Lake Erie Estuaries*. Ph.D. Dissertation, Cleveland State University, Cleveland, OH. 425 pp.

Sgro, G.V. and J.R. Johansen. 1998. *Algal periphyton bioassessment methods for Lake Erie estuaries. Volume I. Metric Development*. Report submitted to Lake Erie Protection Fund, Ohio Lake Erie Office, Toledo, OH. 59 pp.

Sgro, G.V. and J.R. Johansen. 1998. *Algal periphyton bioassessment methods for Lake Erie estuaries. Volume II. Documentation of water chemistry and diatom species composition of 10 Lake Erie Estuaries*. Report submitted to Lake Erie Protection Fund, Ohio Lake Erie Office, Toledo, OH. 289 pp.

Sgro, G.V. and J.R. Johansen. 1995. *Ecology and assessment of the algae of four Lake Erie estuaries*. Report submitted to Lake Erie Protection Fund, Ohio Lake Erie Office, Toledo, OH. 273 pp.

Sgro, G.V. 1993. *Phytoplankton composition of the Cuyahoga River mouth and associated nearshore waters of Lake Erie in 1990-1991*. M.S. Thesis, John Carroll University. 130 pp.

Presentations

Sgro, G.V. and J.R. Johansen. 1998. Algal periphyton bioassessment methods for Lake Erie estuaries. Annual Meeting of the International Association of Great Lakes Research, Cleveland State University, Cleveland, OH.

Sgro, G.V. and J.R. Johansen. 1995. Ecology of the Algal Communities of Four Lake Erie Estuaries. XIIIth North American Diatom Symposium, Lakeside Laboratory, Iowa.

Sgro, G.V. and J.R. Johansen. 1995. Ecology of the Algal Communities of Four Lake Erie Estuaries. Annual Meeting of the Phycological Society of America, Breckenridge, Colorado.

Sgro, G.V. and J.R. Johansen. 1993. Phytoplankton Composition of the Cuyahoga River Mouth and Associated Nearshore Waters of Lake Erie. Twelfth North American Diatom Symposium, Delta Marsh, Manitoba.

Sgro, G.V. and J.R. Johansen. 1993. Phytoplankton Composition of the Cuyahoga River Mouth and Associated Nearshore Waters of Lake Erie. Annual meeting of the Phycological Society of America, Ames, Iowa.