

## RESUME

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### Academic Degrees

A.B., 1955 -- Kansas State Teachers College, Emporia  
M.S., 1956 -- Kansas State Teachers College, Emporia  
Ph.D., 1961 -- University of Michigan

### Professional Experience

Eminent Scholar Emeritus, University of Florida, 2001-  
Carl S. Swisher Eminent Scholar Chair and Professor of Water Resources,  
University of Florida, 1987-2000.  
Affiliate Professor of Geology, University of Florida, 1995.  
Affiliate Professor of Soil and Water Science, University of Florida,  
1994.  
Affiliate Professor of Zoology, University of Florida, 1988.  
Affiliate Professor, College of Natural Resources and Environment, 1998  
Emeritus Professor of Natural Resources, 1987, Professor of Natural  
Resources 1986-1987, Associate Professor of Natural Resources,  
School of Natural Resources - 1976-1986; The University of  
Michigan.  
Emeritus Associate Professor of Limnology, 1987, Associate Professor of  
Limnology, Department of Atmospheric and Oceanic Science, The  
University of Michigan, 1976-1987.  
Research Limnologist, Great Lakes Research Division, The University of  
Michigan, 1971-1987.  
Acting Director, Great Lakes Research Division, The University of  
Michigan, 1973-1976.  
Lecturer, University of Michigan Biological Station, Summer 1970.  
Assistant Director, Great Lakes Research Division, The University of  
Michigan, 1970-1972.  
Associate Research Limnologist, Great Lakes Research Division,  
The University of Michigan, 1969-1971.  
Assistant Professor of Radiological Health, Department of Environmental  
Health, School of Public Health and Assistant Research Limnologist,  
Great Lakes Research Division, Institute of Science and Technology,  
The University of Michigan, 1967-1968.  
Technical Assistant, Office of Science and Technology, Executive Office  
of the President, Washington, D.C., 1966-1967.  
Adjunct Assistant Professor, Department of Zoology, North Carolina State  
University, Raleigh, 1964-1966.  
Fishery Biologist, Supervisory Fishery Biologist, Chief of Estuarine  
Ecology Program, Bureau of Commercial Fisheries, Radiobiological  
Laboratory, Beaufort, North Carolina, 1962-1966.  
Research Associate, University of Georgia Marine Institute, 1960-1962.  
Visiting Instructor, Kansas State Teachers College, Emporia, Summer  
1960.  
Research Fellowship, Institute for Fisheries Research, Michigan  
Department of Conservation, 1957-1960.  
Teaching Fellowship, Department of Zoology, University of Michigan,  
1955-1957.  
Teaching and Research Assistantships, Department of Biology, Kansas  
State Teachers College, Emporia, 1952-1955.

## **Special Honors and Awards**

Who's Who in America  
American Men and Women in Science  
Distinguished Alumnus Award, Emporia State University, 1989  
Edward S. Deevey Award, Florida Lake Management Society, 2000  
Ruth Patrick Award, American Society of Limnology and Oceanography, 2003

## **Scientific and Professional Societies**

American Society of Limnology and Oceanography  
Societas Internationalis Limnologiae  
American Association for Advancement of Science (Fellow)  
American Geophysical Union  
American Institute of Fishery Research Biologists (Fellow)  
International Association for Great Lakes Research  
North American Benthological Society  
North American Lake Management Society

## **Miscellaneous**

### **A. Offices:**

National Representative, International Society for Applied and Theoretical Limnology, 1999-2007  
Past-President, 1991-1992, President, 1989-1991, Vice President, 1988-1989, and Secretary, 1976-1985, American Society of Limnology and Oceanography  
Director, South-Central Great Lakes District, American Institute of Fishery Research Biologists, 1977-1980  
Associate Editor, Ecology and Ecological Monographs, 1972-1975  
Member of Editorial Board, International Association for Great Lakes Research, 1970-1973  
Associate Editor, Journal of Great Lakes Research, 1984-1993.

### **B. Consulting:**

Consultant, Illinois Attorney General, 1977-1980  
Consultant, WAPORA, Washington, D.C., 1977-1980  
Consultant, Department of Health, State of Colorado, 1981-1982  
Consultant, Union Lakes Community Association, Union Lake, MI, 1982-1983  
Consultant, Wisconsin Center for Public Policy, 1984  
Consultant, National Environmental Policy & Law Center, Inc. 1995

### **C. Professional Activities:**

Member of Chemical and Biological Scientific Panel for International Field Year for the Great Lakes.  
Member of Standing Committee on Eutrophication, Research Advisory Board, International Joint Commission.  
Member of Standing Committee on Analytical Sampling and Measurement Methods, Research Advisory Board, International Joint Commission.  
Member, National Research Council's Ocean Sciences Board Site Review Team for Great Lakes Environmental Research Laboratory, NOAA, 1976.  
Coordinator, Wisconsin Center for Public Policy, Madison, Information Verification Project, Panel on Phosphates Ban, 1984.  
National Research Council, Committee on Restoration of Aquatic Systems: Science, Technology, and Public Policy, 1989-1991.  
Rookery Bay National Estuarine Research Reserve Advisory Committee - 1991-1994.

Panel on the NOAA Coastal Ocean Program, Ocean Studies Board, National Research Council.  
Upper Ocklawaha River Basin Technical Advisory Group, St. Johns River Water Management District, 1989.  
Orange Creek Basin Advisory Council, St. Johns River Water Management District, Scientific Advisory Committee, 1995-  
Ocklawaha Study Group, 1998.  
North American Lake Management Society, Program Committee for 20th Annual Meeting, Miami Florida, 1999-2000.  
Florida Department of Environmental Protection, Technical Advisory Committee, Total Maximum Daily Load (TMDL) for Total Phosphorus in Lake Okeechobee, 2000-2001.  
Florida Defenders of the Environment, Advisor, 2001-  
Annis Water Resources Institute, Grand Valley State University, Science Advisory Board, 2002-2005

### **Principal Research Interests**

Research on biological productivity, nutrient enrichment, biogeochemistry and eutrophication; effects of nutrients and other factors on biological production; and paleolimnology of lakes.

### **Publications**

#### **A. Refereed Journals and Major Principal Proceedings:**

- Schelske C. L., F. J. Aldridge, H. J. Carrick, and M. F. Coveney. 2006. Reply--Net production and heterotrophy in Lake Apopka: A reply to Bachmann et al. *Archiv Hydrobiol.* 166:565-576.
- Schelske, C. L. 2006. Comment on the origin of the "fluid mud layer" in Lake Apopka, Florida. *Limnol. Oceanogr.* 51:2472-2480.
- Gu, B. H., A. D. Chapman, and C. L. Schelske. 2006. Factors controlling seasonal variations in stable isotope composition of particulate organic matter in a soft water eutrophic lake. *Limnol. Oceanogr.* 51:2837-2848.
- Schelske, C. L., E. F. Stoermer, and W. F. Kenney. 2006. Historic low-level phosphorus enrichment in the Great Lakes inferred from biogenic silica accumulation in sediment. *Limnol. Oceanogr.* 51:728-748.
- Waters, M. N., C. L. Schelske, W. F. Kenney, and A. D. Chapman. 2005. The use of sedimentary algal pigments to infer historic algal communities in Lake Apopka, Florida. *J. Paleolimnol.* 33:53-71.
- Schelske, C. L., E. F. Lowe, L. E. Battoe, M. Brenner, M. F. Coveney, and W. F. Kenney. 2005. Abrupt biological response to hydrologic and land-use changes in Lake Apopka, Florida (USA). *Ambio* 34:192-198.
- Hambricht, K. D. W. Eckert, P. R. Leavitt, C. L. Schelske. 2004. Effects of historical lake level and land use on sediment and phosphorus accumulation rates in Lake Kinneret. *Environ. Sci. Tech.* 38:6460-6467.
- Brenner M, C. L. Schelske, and W. F. Kenney. 2004. Inputs of dissolved and particulate Ra-226 to lakes and implications for Pb-210 dating recent sediments. *J. Paleolimnol.* 32:53-66.

- Gaiser E. E., M. J. Brooks, W. F. Kenney, C. L. Schelske, and B. E. Taylor. 2004. Interpreting the hydrological history of a temporary pond from chemical and microscopic characterization of siliceous microfossils. *J. Paleolimnol* 31:63-76.
- Gu, B. H., C. L. Schelske, and D. A. Hodell. 2004. Extreme <sup>13</sup>C enrichments in a shallow hypereutrophic lake: Implications for carbon cycling. *Limnol. Oceanogr.* 49:1152-1159.
- Schelske C. L., F. J. Aldridge, H. J. Carrick, and M. F. Coveney. 2003. Phytoplankton community photosynthesis and primary production in a hypereutrophic lake, Lake Apopka, Florida, *Archiv Hydrobiol.* 157:145-172.
- Silliman J. E. and C. L. Schelske. 2003. Saturated hydrocarbons in the sediments of Lake Apopka, Florida. *Org. Geochem.* 34:253-260.
- Kenney, W. F., M. N. Waters, C. L. Schelske, and M. Brenner. 2002. Sediment records of phosphorus-driven shifts to phytoplankton dominance in shallow Florida lakes. *J. Paleolimnol* 27:367-377.
- Shumate, B. C., C. L. Schelske, T. L. Crisman, and W. F. Kenney. 2002. Response of the cladoceran community to trophic state change in Lake Apopka, Florida. *J. Paleolimnol.* 27:71-77.
- Brenner M., C. L. Schelske, and L. W. Keenan. 2001. Historical rates of sediment and nutrient accumulation in marshes of the Upper St. Johns River Basin, Florida, USA. *J Paleolimnol.* 26:241-257.
- Kenney, W. F., C. L. Schelske and A. D. Chapman. 2001. Changes in polyphosphate sedimentation: A response to excessive phosphorus enrichment in a hypereutrophic lake. *Can J. Fish. Aquat. Sci.* 58:879-887.
- Schelske, C. L. and W. F. Kenney. 2001. Model erroneously predicts failure for restoration of Lake Apopka, a hypereutrophic, subtropical lake. *Hydrobiologia* 448:1-5.
- Lowe, E. F., L. E. Battoe, M. F. Coveney, C. L. Schelske, K. E. Havens, E. R. Marzolf, and K. R. Reddy. 2001. The restoration of Lake Apopka in relation to alternative stable states: an alternative view to that of Bachmann et al. (1999). *Hydrobiologia* 448:11-18
- Havens, K. E, and C. L. Schelske. 2001. The importance of considering biological processes when setting total maximum daily loads (TMDL) for phosphorus in shallow lakes and reservoirs. *Environ. Pollut.* 113:1-9.
- Fahnenstiel, G. L., R. A. Stone, M. J. McCormick, C. L. Schelske, and S. E. Lohrenz. 2000. Spring isothermal mixing in the Great Lakes: evidence of nutrient limitation and nutrient-light interactions in a suboptimal light environment. *Can. J. Fish. Aquat. Sci.* 57:1901-1910.
- Myers, P. and C. L. Schelske. 2000. An inexpensive, optical (infrared) detector to measure water depth in lakes with flocculent sediments. *J. Paleolimnol.* 23:201-205.
- Brenner, M., J. M. Smoak, M. S. Allen, C. L. Schelske, and D. A. Leeper. 2000. Biological accumulation of <sup>226</sup>Ra in a groundwater-augmented Florida lake. *Limnol. Oceanogr.* 45:710-715.

- Edlund, M. B., C. M. Taylor, C. L. Schelske, and E. F. Stoermer. 2000. *Thalassiosira baltica* (Bacillariophyta), a new exotic species in the Great Lakes? *Can. J. Fish. Aquat. Sci.* 57:610-615.
- Schelske, C. L., M. F. Coveney, F. J. Aldridge, W. F. Kenney and J. E. Cable. 2000. Wind or nutrients: Historic development of hypereutrophy in Lake Apopka, Florida. *Limnology and Lake Management* 2000+. *Arch. Hydrobiol. Spec. Issues Advanc. Limnol.* 55:543-563.
- Brenner, M., L.W. Keenan, S.J. Miller, and C. L. Schelske. 1999. Spatial and temporal patterns of sediment and nutrient accumulation in shallow lakes of the Upper St. Johns River Basin, Florida. *Wetlands Ecology and Management* 6:221-240.
- Brenner, M., T. J. Whitmore, J. H. Curtis, D. A. Hodell, and C. L. Schelske. 1999. Stable isotope ( $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$ ) signatures of sedimented organic matter as indicators of historic lake trophic state. *J. Paleolimnol.* 22:205-221.
- Hodell, D. A., C. L. Schelske, G. L. Fahnenstiel, and L.L. Robbins. 1998. Biologically induced calcite and its isotopic composition in Lake Ontario. *Limnol. Oceanogr.* 43:187-199.
- Hodell, D. A. and C. L. Schelske. 1998. Production, sedimentation, and isotopic composition of organic matter in Lake Ontario. *Limnol. Oceanogr.* 43:200-214.
- Aldridge, F. J., A. D. Chapman, C. L. Schelske, and R. W. Brody. 1998. Interaction of light, nutrients and phytoplankton in a blackwater river, St. Johns River, Florida, USA. *Verh. Internat. Verein. Limnol.* 26:1665-1669.
- Schelske, C. L. and G. L. Fahnenstiel. 1998. Commemorating 50 Years of Great Lakes research at the University of Michigan: A Tribute to David C. Chandler. *J. Great Lakes Res.* 24:487-494.
- Fahnenstiel, G. L., A. E. Krause, M. J. McCormick, H. J. Carrick, and C. L. Schelske. 1998. The structure of the planktonic food-web in the St. Lawrence Great Lakes. *J. Great Lakes Res.* 24:531-554.
- Julius, M. L., E. F. Stoermer, C. M. Taylor, and C. L. Schelske. 1998. Local extirpation of *Stephanodiscus niagarae* Ehrenb. (Bacillariophyta) in the recent limnological record of Lake Ontario. *J. Phycol.* 34:766-771
- Carrick, H. J. and C. L. Schelske. 1997. Have we overlooked the importance of small phytoplankton in productive waters? *Limnol. Oceanogr.* 42:1613-1621.
- Brenner, M., C. L. Schelske, and T. J. Whitmore. 1997. Radium-226 stratigraphy in Florida lake sediments as an indicator of human disturbance. *Verh. Internat. Verein. Limnol.* 26:809-813.
- Gu, B., C. L. Schelske, and M. V. Hoyer. 1997. Intrapopulation feeding diversity in blue tilapia: evidence from stable carbon and nitrogen isotopes. *Ecology* 78:2263-2266.
- Chapman, A. D. and C. L. Schelske. 1997. Recent appearance of *Cylindrospermopsis* (Cyanobacteria) in five hypereutrophic Florida lakes. *J. Phycology* 33:191-195.

- Gu, B., K. E. Havens, C. L. Schelske, and B. H. Rosen. 1997. Uptake of dissolved nitrogen by phytoplankton in a eutrophic subtropical lake. *J. Plankton Res.* 19:759-770.
- Gu, B., C. L. Schelske, and M. V. Hoyer. 1997. Stable isotopes of carbon and nitrogen as indicators of diet and trophic structure of the fish community in a shallow hypereutrophic lake. *J. Fish Biology* 49:1233-1243.
- Stoermer, E. F., G. Emmert, M. L. Julius, and C. L. Schelske. 1996. Paleolimnologic evidence of rapid recent change in Lake Erie's trophic status. *Can. J. Fish. Aquat. Sci.* 53:1451-1458.
- Gu, B. and C. L. Schelske. 1996. Temporal and spatial variations in phytoplankton carbon isotopes in a polymictic subtropical lake. *J. Plankton Res.* 18:2081-2092.
- Brenner, M., T. J. Whitmore, and C. L. Schelske. 1996. Paleolimnological evaluation of historical trophic state conditions in hypereutrophic Lake Thonotosassa, Florida, USA. *Hydrobiologia* 331:143-152.
- Gu, B., C. L. Schelske, and M. Brenner. 1996. Relationships between sediment and plankton isotope ratios ( $\delta^{13}\text{C}$  and  $\delta^{13}\text{N}$ ) and primary productivity in Florida Lakes. *Can. J. Fish. Aquat. Sci.* 53:685-693.
- Whitmore, T. J., M. Brenner, and C. L. Schelske. 1996. Highly variable sediment distribution in shallow, wind-stressed lakes: A case for sediment-mapping surveys in paleolimnological studies. *J. Paleolimnol.* 15:207-221.
- Brenner, M., T. J. Whitmore, J. H. Curtis, and C. L. Schelske. 1995. Historical ecology of a hypereutrophic Florida lake. *Florida Lake and Reserv. Manage.* 11:255-271.
- Schelske, C. L., H. J. Carrick, and F. J. Aldridge. 1995. Can wind-induced resuspension of meroplankton affect phytoplankton dynamics? *J. N. Am. Benthol. Soc.* 14:616-630.
- Schelske, C. L. and D. A. Hodell. 1995. Using carbon isotopes of bulk sedimentary organic matter to reconstruct the history of nutrient loading and eutrophication in Lake Erie. *Limnol. Oceanogr.* 40:918-929.
- Aldridge, F. J., E. J. Phlips, and C. L. Schelske. 1995. The use of nutrient enrichment bioassays to test for spatial and temporal distribution of limiting factors affecting phytoplankton dynamics in Lake Okeechobee, Florida. *Arch. Hydrobiol. Spec. Issues Advanc. Limnol.* 45:177-190.
- Phlips, E. J., F. J. Aldridge, C. L. Schelske, and T. L. Crisman. 1995. Relationships between light availability, chlorophyll *a*, and tripton in a large, shallow subtropical lake. *Limnol. Oceanogr.* 40:416-421.
- Stoermer, E. F., M. B. Edlund, C. H. Pilskaln, and C. L. Schelske. 1995. Siliceous microfossil distribution in the surficial sediments of Lake Baikal. *J. Paleolimnol.* 14:69-82.
- Schelske, C. L. and E. F. Stoermer. 1994. Did top-down effects amplify anthropogenic nutrient perturbations in Lake Michigan? Comment on Evans (1992). *Can. J. Fish. Aquat. Sci.* 51:2147-2149.

- Schelske, C. L., A. Peplow, M. Brenner, and C. N. Spencer. 1994. Low-background gamma counting: Applications for  $^{210}\text{Pb}$  dating of sediments. *J. Paleolimnol.* 10:115-128.
- Brenner, M., A. J. Peplow, and C. L. Schelske. 1994. Disequilibrium between  $^{226}\text{Ra}$  and supported  $^{210}\text{Pb}$  in a sediment core from a shallow Florida lake. *Limnol. Oceanogr.* 39:1222-1227.
- Carrick, H. J., F. J. Aldridge, and C. L. Schelske. 1993. Wind influences phytoplankton biomass and composition in a shallow, productive lake. *Limnol. Oceanogr.* 38:1179-1192.
- Barnese, L. E. and C. L. Schelske. 1993. Effects of nitrogen, phosphorus and carbon enrichment on planktonic and periphytic algae in a softwater oligotrophic lake in Florida, U.S.A. *Hydrobiologia* 277:159-170.
- Carrick, H. J., C. L. Schelske, F. J. Aldridge, and M. F. Coveney. 1993. Assessment of phytoplankton nutrient limitation in productive waters: Application of dilution bioassays. *Can. J. Fish. Aquat. Sci.* 50:2208-2221.
- Conley, D. J., C. L. Schelske, and E. F. Stoermer. 1993. Modification of the biogeochemical cycle of silica with eutrophication. *Mar. Ecol. Prog. Ser.* 101:179-192.
- Aldridge, F. J., C. L. Schelske, and H. J. Carrick. 1993. Nutrient limitation in a hypereutrophic Florida lake. *Arch. Hydrobiol.* 127:21-37.
- Conley, D. J. and C. L. Schelske. 1993. Potential role of sponge spicules in influencing the silicon biogeochemistry of Florida lakes. *Can. J. Fish. Aquat. Sci.* 50:296-302.
- Stoermer, E. F., N. A. Andresen, and C. L. Schelske. 1992. Diatom succession in the recent sediments of Lake Okeechobee, Florida, U.S.A. *Diatom Res.* 7:367-386.
- Schelske, C. L. and D. A. Hodell. 1991. Recent changes in productivity and climate of Lake Ontario detected by isotopic analysis of sediments. *Limnol. Oceanogr.* 36:961-975.
- Stoermer, E. F., J. P. Kociolek, C. L. Schelske, and N. A. Andresen. 1991. Siliceous microfossil succession in the recent history of Green Bay, Lake Michigan. *J. Paleolimnol.*
- Schelske, C. L. 1991. Historical nutrient enrichment of Lake Ontario: Paleolimnological evidence. *Can. J. Fish. Aquat. Sci.* 48:1529-1538.
- Wolin, J. A., E. F. Stoermer, and C. L. Schelske. 1991. Recent changes in Lake Ontario 1981-1987: microfossil evidence of phosphorus reduction. *J. Great Lakes Res.* 17:229-240.
- Schelske, C. L. and L. Sicko-Goad. 1990. Effect of chelated trace metals on phosphorus uptake and storage in natural assemblages of Lake Michigan phytoplankton. *J. Great Lakes Res.* 16:82-89.
- Stoermer, E. F., C. L. Schelske, and J. A. Wolin. 1990. Siliceous microfossil succession in the sediments of McLeod Bay, Great Slave Lake, Northwest Territories. *Can. J. Fish. Aquat. Sci.* 47:1865-1874.

- Stoermer, E. F., J. A. Wolin, C. L. Schelske, and D. J. Conley. 1990. Siliceous microfossil succession in Lake Michigan. *Limnol. Oceanogr.* 114:959-967.
- Fahnenstiel, G. L., C. L. Schelske, and M. J. McCormick. 1990. Phytoplankton photosynthesis and biomass in Lake Superior: Effects of nutrient enrichment. *Verh. Internat. Verein. Limnol.* 24:371-377
- Stoermer, E. F., G. Emmert, and C. L. Schelske. 1989. Morphological variation of *Stephanodiscus niagarae* Ehrenb. (Bacillariophyta) in a Lake Ontario sediment core. *J. Paleolimnol.* 2:227-236.
- Schelske, C. L. 1989. Assessment of nutrient effects and nutrient limitation in Lake Okeechobee. *Water Res. Bull.* 25:1119-1130.
- Conley, D. J. and C. L. Schelske. 1989. Processes controlling the benthic regeneration and sedimentary accumulation of biogenic silica in Lake Michigan. *Archiv. Hydrobiol.* 116:23-43.
- Schelske, C. L. 1988. Historic trends in Lake Michigan silica concentrations. *Int. Revue ges. Hydrobiol.* 73:559-591.
- Wolin, J. A., E. F. Stoermer, C. L. Schelske, and D. J. Conley. 1988. Siliceous microfossil succession in recent Lake Huron sediments. *Archiv. Hydrobiol.* 114:175-198.
- Schelske, C. L., J. A. Robbins, W. D. Gardner, D. J. Conley, and R. A. Bourbonniere. 1988. Sediment record of biogeochemical responses to anthropogenic perturbations of nutrient cycles in Lake Ontario. *Can. J. Fish. Aquat. Sci.* 45:1291-1303.
- Conley, D. J., M. A. Quigley, and C. L. Schelske. 1988. Silica and phosphorus flux from sediments: Importance of internal recycling in Lake Michigan. *Can. J. Fish. Aquat. Sci.* 45:1030-1035.
- Schelske, C. L., D. J. Conley, and E. F. Stoermer. 1988. Has silica increased in Lake Superior waters? *Verh. Internat. Verein. Limnol.* 23:163-169.
- Stoermer, E. F., J. P. Kociolek, C. L. Schelske, and D. J. Conley. 1987. Quantitative analysis of siliceous microfossils in the sediments of Lake Erie's central basin. *Diatom Res.* 2:113-134.
- Schelske, C. L., H. Züllig, and M. Boucherle. 1987. Limnological investigation of biogenic silica sedimentation and silica biogeochemistry in Lake St. Moritz and Lake Zürich. *Schweiz. Z. Hydrol.* 49:42-50.
- Schelske, C. L., D. J. Conley, E. F. Stoermer, T. L. Newberry, and C. D. Campbell. 1986. Biogenic silica and phosphorus accumulation in sediments as indices of eutrophication in the Laurentian Great Lakes. *Hydrobiologia* 143: 79-86.
- Newberry, T. L. and C. L. Schelske. 1986. Biogenic silica record in the sediments of Little Round Lake, Ontario. *Hydrobiologia* 143: 293-300.
- Conley, D. J., C. L. Schelske, B. G. Dempsey, C. D. Campbell, and T. L. Newberry. 1986. Distribution of biogenic silica in the surficial sediments of Lake Michigan. *Can. J. Earth Sci.* 23: 1442-1449.
- Schelske, C. L., E. F. Stoermer, G. L. Fahnenstiel, and M. Haibach. 1986. Phosphorus enrichment, silica utilization, and biogeochemical silica depletion in the Great Lakes. *Can. J. Fish. Aquat. Sci.* 43: 407-415.

- Stoermer, E. F., J. A. Wolin, C. L. Schelske, and D. J. Conley. 1985. Variations in *Melosira islandica* valve morphology in Lake Ontario sediments related to eutrophication and silica depletion. *Limnol. Oceanogr.* 30: 414-418.
- Stoermer, E. F., J. P. Kociolek, C. L. Schelske, and D. J. Conley. 1985. Siliceous microfossil succession in the recent history of Lake Superior. *Proc. Acad. Nat. Sci., Philadelphia* 137: 106-118.
- Schelske, C. L., D. J. Conley, and W. F. Warwick. 1985. Historical relationships between phosphorus loading and biogenic silica accumulation in Bay of Quinte sediments. *Can. J. Fish. Aquat. Sci.* 42: 1401-1409.
- Stoermer, E. F., J. A. Wolin, C. L. Schelske, and D. J. Conley. 1985. Post-settlement diatom succession in the Bay of Quinte, Lake Ontario. *Can. J. Fish. Aquat. Sci.* 42: 754-767.
- Schelske, C. L. 1985. Biogeochemical silica mass balances in Lake Michigan and Lake Superior. *Biogeochemistry* 1: 197-218.
- Stoermer, E. F., J. A. Wolin, C. L. Schelske, and D. J. Conley. 1985. An assessment of ecological changes during the recent history of Lake Ontario based on siliceous algal microfossils preserved in the sediments. *J. Phycol.* 21: 257-276.
- Schelske, C. L. 1985. Silica depletion in Lake Michigan: verification using Lake Superior as an environmental reference standard. *J. Great Lakes Res.* 11: 492-500.
- Sicko-Goad, L. M., C. L. Schelske, and E. F. Stoermer. 1984. Estimation of intracellular carbon and silica content of diatoms from natural assemblages using morphometric techniques. *Limnol. Oceanogr.* 29: 1170-1178.
- Fahnenstiel, G. L., C. L. Schelske, and R. A. Moll. 1984. In situ quantum efficiency of Lake Superior phytoplankton. *J. Great Lakes Res.* 10: 399-406.
- Schelske, C. L., C. O. Davis, and L. E. Feldt. 1984. Growth responses of river and lake phytoplankton populations in Lake Michigan water. *Verh. Internat. Verein. Limnol.* 22:445-451.
- Fahnenstiel, G. L., D. Scavia, and C. L. Schelske. 1984. Nutrient-light interactions in the Lake Michigan subsurface chlorophyll layer. *Verh. Internat. Verein. Limnol.* 22:440-444.
- Schelske, C. L. 1984. Comment on small particles of amorphous silica in the nepheloid layer. *J. Great Lakes Res.* 10:94-95.
- Schelske, C. L., B. J. Eadie, and G. L. Krausse. 1984. Measured and predicted fluxes of biogenic silica in Lake Michigan. *Limnol. Oceanogr.* 29:99-110.
- Schelske, C. L., E. F. Stoermer, D. J. Conley, J. A. Robbins, and R. M. Glover. 1983. Early eutrophication of the lower Great Lakes: new evidence from biogenic silica in sediments. *Science* 222:320-322.
- Bathelt, R. W. and C. L. Schelske. 1983. Degradation of the peritrophic membrane of freshwater zooplankton fecal pellets. *Trans. Am. Microsc. Soc.* 102:288-299.

- Krausse, G. L., C. L. Schelske, and C. O. Davis. 1983. Comparison of three wet-alkaline methods of digestion of biogenic silica in water. *Freshwater Biology* 13: 73-81.
- Bartone, C. R. and C. L. Schelske. 1982. Lake-wide seasonal changes in limnological conditions in Lake Michigan in 1976. *J. Great Lakes Res.* 8: 413-427.
- Lin, C. K. and C. L. Schelske. 1981. Seasonal variation of potential nutrient limitation to chlorophyll production in southern Lake Huron. *Can. J. Fish. and Aquatic Sci.* 38: 1-9.
- Moll, R. A., C. O. Davis, and C. L. Schelske. 1980. Phytoplankton productivity and standing crop in the vicinity of the Lake Huron-Saginaw Bay front. *J. Great Lakes Res.* 6: 232-246.
- Schelske, C. L. 1979. The role of phosphorus in Great Lakes eutrophication: is there a controversy? *J. Fish. Res. Board Can.* 36: 286-288.
- Stoermer, E. F., B. G. Ladewski, and C. L. Schelske. 1978. Population responses of Lake Michigan phytoplankton to nitrogen and phosphorus enrichment. *Hydrobiologia* 57: 249-265.
- Schelske, C. L., E. D. Rothman, and M. S. Simmons. 1978. Comparison of bioassay procedures for growth-limiting nutrients in the Laurentian Great Lakes. *Mitt. Internat. Verein. Limnol.* 21: 65-80.
- Moll, R. A., C. L. Schelske, and M. S. Simmons. 1976. Water mass distribution in the Straits of Mackinac region. *J. Great Lakes Res.* 2: 43-59. *Internat. Assoc. Great Lakes Res.*
- Schelske, C. L., M. S. Simmons, and L. E. Feldt. 1975. Phytoplankton responses to phosphorus and silica enrichments in Lake Michigan. *Verh. Internat. Verein. Limnol.* 19: 911-921.
- Schelske, C. L., L. E. Feldt, M. S. Simmons, and E. F. Stoermer. 1974. Storm induced relationships among chemical conditions and phytoplankton in Saginaw Bay and western Lake Huron. *Proc. 17th Conf. Great Lakes Res.*, pp. 78-91.
- Schelske, C. L., E. D. Rothman, E. F. Stoermer, and M. A. Santiago. 1974. Responses of phosphorus-limited Lake Michigan phytoplankton to factorial enrichments with nitrogen and phosphorus. *Limnol. Oceanogr.* 19: 409-419.
- Schelske, C. L. 1973. Fallout Mn-54 accumulated by bay scallops Argopecten irradians (Lamarck) near Beaufort, North Carolina, pp. 331-346. In Symposium on the interaction of radioactive contaminants with the constituents of the marine environment. Seattle, Washington, July 1972. International Atomic Energy Agency, Vienna.
- Feldt, L. E., E. F. Stoermer, and C. L. Schelske. 1973. Occurrence of morphologically abnormal Synedra populations in Lake Superior phytoplankton. *Proc. 16th Conf. Great Lakes Res.*, pp. 34-39.
- Schelske, C. L. and E. F. Stoermer. 1972. Phosphorus, silica and eutrophication of Lake Michigan, pp. 157-171. In G. E. Likens (ed.), Nutrients and eutrophication, Special Symposia Vol. 1, American Society of Limnology and Oceanography, Allen Press, Lawrence, Kansas.

- Stoermer, E. F., C. L. Schelske, M. A. Santiago, and L. E. Feldt. 1972. Spring phytoplankton abundance and productivity in Grand Traverse Bay, Lake Michigan, 1970. *Proc. 15th Conf. Great Lakes Res.*, pp. 181-191.
- Schelske, C. L., L. E. Feldt, M. A. Santiago, and E. F. Stoermer. 1972. Nutrient enrichment and its effect on phytoplankton production and species composition in Lake Superior. *Proc. 15th Conf. Great Lakes Res.*, pp. 149-165.
- Stoermer, E. F., C. L. Schelske, and L. E. Feldt. 1971. Phytoplankton assemblage differences at inshore versus offshore stations in Lake Michigan, and their effects on nutrient enrichment experiments. *Proc. 14th Conf. Great Lakes Res.*, pp. 114-118.
- Schelske, C. L., E. F. Stoermer, and L. E. Feldt. 1971. Nutrients, phytoplankton productivity and species composition as influenced by upwelling in Lake Michigan. *Proc. 14th Conf. Great Lakes Res.*, pp. 102-113.
- Schelske, C. L. and E. F. Stoermer. 1971. Eutrophication, silica depletion and predicted changes in algal quality in Lake Michigan. *Science* 173: 423-424.
- Schelske, C. L., D. A. Wolfe, and D. E. Hoss. 1971. Ecological implications of fallout radioactivity accumulated by estuarine fishes and mollusks, pp. 791-806. *In* D. J. Nelson and F. C. Evans (eds.), *Proc. Third National Symposium on Radioecology*.
- Schelske, C. L. and E. Callender. 1970. Survey of phytoplankton productivity and nutrients in Lake Michigan and Lake Superior. *Proc. 13th Conf. Great Lakes Res.*, pp. 93-105.
- Wolfe, D. A. and C. L. Schelske. 1969. Accumulation of fallout radioisotopes by bivalve molluscs from the lower Trent and Neuse Rivers, pp. 493-504. *In* D. J. Nelson and F. C. Evans (eds.), *Proc. Second National Symposium on Radioecology, CONF-670503, USAEC, (TID-4500)*.
- Wolfe, D. A. and C. L. Schelske. 1967. Liquid scintillation and geiger counting efficiencies for carbon-14 incorporated by marine phytoplankton in productivity measurements. *J. Cons. Perm. int. Explor. Mer*, 31:31-37.
- Schelske, C. L. 1962. Iron, organic matter, and other factors limiting primary productivity in a marl lake. *Science* 136: 45-46.
- Schelske, C. L., F. F. Hooper, and E. J. Haertl. 1962. Responses of a marl lake to chelated iron and fertilizer. *Ecology* 43: 646-653.
- Schelske, C. L. and E. P. Odum. 1962. Mechanisms maintaining high productivity in Georgia estuaries. *Proc. Gulf and Caribbean Fisheries Institute* 14: 75-80.

#### **B. Books and Monographs:**

- Schelske, C. L. 2002. Meroplankton. *In*: G. Bitton (ed), *Encyclopedia of Environmental Microbiology*. 6 volumes, John Wiley & Sons. pp.. 1863-1869.
- Conley, D. J., and C. L. Schelske. 2001. Biogenic Silica. *In*: Smol, J. P., H. J. B. Birks, and W. M. Last (eds.). *Tracking Environmental Changes in Lake Sediments: Volume 3: Terrestrial, Algal, and Siliceous Indicators*. Kluwer Academic Publishers, Dordrecht. pp. 281-293.

- Reddy, K. R., G. A. O'Connor, and C. L. Schelske (eds.). 1999. Phosphorus Biogeochemistry in Subtropical Ecosystems, Florida as a Case Example. CRC/Lewis Publishers. 707 pp.
- Schelske, C. L., F. J. Aldridge, and W. F. Kenney. 1999. Assessing nutrient limitation and trophic state in Florida lakes. *In*: K. R. Reddy, G. A. O'Connor, and C. L. Schelske (Eds.) Phosphorus Biogeochemistry in Subtropical Ecosystems, Florida as a Case Example. CRC/Lewis Publishers. pp. 321-339.
- Schelske, C. L., C. M. Donar, and E. F. Stoermer. 1999. A test of paleolimnologic proxies for the planktonic/benthic ratio of microfossil diatoms in Lake Apopka. *In*: Mayama, Idei & Koizumi (eds.) 14th International Diatom Symposium, Tokyo, Japan. Koeltz Scientific Books, Koenigstein. pp. 367-382.
- Schelske, C. L. 1998. Diatoms as mediators of biogeochemical silica depletion in the Laurentian Great Lakes *In*: Eugene F. Stoermer and John P. Smol (eds.), The Diatoms: Applications to the Environmental and Earth Sciences. Cambridge University Press. pp. 73-84.
- Spencer C. and C. L. Schelske. 1998. Northwestern Montana over the last 150 years: a paleolimnological study. *In* M.K. Brewin and D.M.A. Monita, Eds. Land Management Practices Affecting Aquatic Ecosystems, Proceedings of the Forest-Fish Conference. Calgary, May 1-4, 1996. Trout Unlimited Canada, Calgary. pp. 187-201.
- Hoyer, M. V., B. Gu, and C. L. Schelske. 1997. Sources of organic carbon in the food webs of two Florida lakes indicated by stable isotopes. *In*: E. Jeppesen, Ma. Søndergaard, Mo. Søndergaard, and K. Christoffersen, (eds.). The Structuring Role of Submerged Macrophytes in Lakes. Springer-Verlag, New York. pp. 326-330.
- Schelske, C. and Brezonik, P. 1992. Restoration Case Studies. Can Lake Apopka be restored? *In*: Restoration of Aquatic Ecosystems: Science, Technology, and Public Policy. Report of Committee on Restoration of Aquatic Ecosystems, National Research Council. National Academy Press, Washington, D.C. pp. 393-398.
- Schelske, C. L. and Carpenter, S. R. 1992. Restoration Case Studies. LAKES. Lake Michigan. *In*: Restoration of Aquatic Ecosystems: Science, Technology, and Public Policy. Report of Committee on Restoration of Aquatic Ecosystems, National Research Council. National Academy Press, Washington, D.C. pp. 380-392.
- Schelske, C. L. 1984. In situ and natural phytoplankton assemblage bioassays, pp. 15-47. In L. E. Shubert (ed.), Algae as ecological indicators. Academic Press, Inc. (London) Limited.
- Schelske, C. L. and R. L. Lowe. 1982. Algal nuisances and indicators of pollution: introduction and bibliography, pp. 799-805. In J. R. Rosowski and B. C. Parker (eds.), Selected papers in phycology II. Phycol. Soc. of America, Inc., Lawrence, Kansas.
- Schelske, C. L., L. E. Feldt, and M. S. Simmons. 1980. Phytoplankton and physical-chemical conditions in selected rivers and the coastal zone of Lake Michigan, 1972. Univ. Michigan, Great Lakes Res. Div. Pub. 19. 162 pp.

- Schelske, C. L. 1975. Silica and nitrate depletion as related to rate of eutrophication in Lakes Michigan, Huron, and Superior, pp. 277-298. In A. D. Hasler (ed.), *Coupling of land and water systems*, Springer-Verlag New York Inc.
- Schelske, C. L. and J. C. Roth. 1973. Limnological survey of Lakes Michigan, Superior, Huron and Erie. Univ. of Michigan, Great Lakes Res. Div., Pub. 17. 108 pp.
- Schelske, C. L. 1957. An ecological study of the fishes of the Fall and Verdigris Rivers in Wilson and Montgomery counties, Kansas, March 1954 to February 1955. *Emporia State Research Studies* 5: 31-56.

### **C. Reports and Miscellaneous Proceedings**

- Phlips, E. J. and C. Schelske. 2004. Assessment of Lake Griffin algal blooms. Spec. Pub. SJ2004-SP3. St. Johns River Water Management District, Palatka, FL. 46 pp. plus 8 appendices.
- Schelske, C. L., W. F. Kenney, and T. J. Whitmore. 2001. Sediment and nutrient deposition in Harris Chain of Lakes. Spec. Pub. SJ2001-SP7. St. Johns River Water Management District, Palatka, FL. 6 chapters (114 pp.) plus 6 appendices.
- Schelske, C. L., W. F. Kenney, P. S. Hansen, T. J. Whitmore, and M. N. Waters. 1999. Sediment and nutrient deposition in Lake Dora and Lake Eustis. Spec. Pub. SJ99-SP6. St. Johns River Water Management District, Palatka, FL. 111 pp. plus 13 appendices.
- Schelske, C. L. 1998. Sediment and nutrient deposition in Lake Griffin. Spec. Pub. SJ99-SP6. St. Johns River Water Management District, Palatka, FL. 95 pp. plus 7 appendices.
- Schelske, C. L. 1997. Sediment and phosphorus deposition in Lake Apopka. 1997. Spec. Pub. SJ97-SP21. St. Johns River Water Management District, Palatka, FL. 97 pp. plus 6 appendices.
- Cable, J. E., C. L. Schelske, P. S. Hansen, and W. F. Kenney. 1997. Sediment and nutrient deposition in Lake Jesup Florida (USA). Technical Report, Contract 95K204. St. Johns River Water Management District, Palatka, FL. 55 pp. plus 5 appendices.
- Brenner, M., and C.L. Schelske. 1995. Historical sedimentation and nutrient storage rates in the Blue Cypress Marsh Conservation Area. Final Report. Special Publication SJ95-SP3, St. Johns River Water Management District, Palatka, FL. 177 p.
- Brenner, M., C.L. Schelske, and A.J. Peplow. 1994. Historical sedimentation and nutrient storage rates in the Blue Cypress Marsh Conservation Area, Part I. Final Report prepared for the St. Johns River Water Management District. 74 p.
- Schelske, C. L., F. J. Aldridge, and H. J. Carrick. 1992. Phytoplankton-nutrient interactions in Lake Apopka. Spec. Pub. No. SJ92-SP9. St. Johns River Water Management District, Palatka, FL.
- Schelske, C. L. and T. J. Whitmore. 1990. A Paleolimnological Analysis of Lake Tsala Apopka, Citrus County, Florida. A report to Southwest Florida Water Management District. 25 pp. plus 4 appendices.

- Schelske, C. L. and L. Sicko-Goad. 1987. Surveillance/Monitoring Workshop. A report to U.S. Environmental Protection Agency, Great Lakes National Program Office, Chicago, Illinois. 60 pp. plus 4 appendices.
- Schelske, C. L. 1984. Coupling of primary and secondary productions: a Great Lakes perspective, pp. 295-312. In Research for managing the nation's estuaries. UNC Sea Grant College Publication UNC-SG-84-08. Raleigh, N.C.
- Schelske, C. L., R. A. Moll, and T. D. Berry. 1983. Limnology of northern Lake Michigan. Part 1. Physical and chemical conditions. Spec. Rept. 95, Great Lakes Res. Div., University of Michigan. pp. 1-126.
- Schelske, C. L. 1980. Dynamics of nutrient enrichment in large lakes: the Lake Michigan case, pp. 41-46. In Restoration of lakes and inland waters. Internat. Symp. on Inland Waters and Lake Restoration, Sept. 8-12, 1980, Portland, Maine. U.S. Environmental Protection Agency, Office of Water Regulations and Standards, Washington, D.C., EPA Rep. No. EPA 440/5-81-010.
- Schelske, C. L., R. A. Moll, and M. S. Simmons. 1980. Limnological conditions in southern Lake Huron, 1974 and 1975. U.S. Environmental Protection Agency, Duluth, Minnesota, Rep. No. EPA-600/3-80-074. 177 pp.
- Lin, C. K. and C. L. Schelske. 1978. Effects of nutrient enrichments, light intensity and temperature on growth of phytoplankton from Lake Huron. Univ. Michigan, Great Lakes Res. Div. Spec. Rep. 63. 61 pp. (Also is U.S. Environmental Protection Agency, Duluth, Minnesota, Rep. No. EPA-600/3-79-049, 1979.)
- Schelske, C. L. 1978. Detecting trends in Great Lakes water quality. Water Quality Bulletin 3(4). 6 pp.
- Schelske, C. L. 1977. Lake Huron: comments, pp. 46-50. In N. G. MacDonald (ed.), Proc. workshop on Great Lakes surveillance and monitoring - 1976. Great Lakes Water Quality Board, International Joint Commission, Windsor, Ontario.
- Schelske, C. L. 1977. Trophic status and nutrient loading for Lake Michigan, pp. 499-536. In North American Project--A study of U.S. water bodies: A report for the Organization of Economic Cooperation and Development. Ecol. Res. Series, U.S. Environmental Protection Agency, Corvallis, Oregon, Rep. No. EPA-600/3-77-086.
- Schelske, C. L., E. F. Stoermer, J. E. Gannon, and M. S. Simmons. 1976. Biological, chemical and physical relationships in the Straits of Mackinac. Ecol. Res. Series, U.S. Environmental Protection Agency, Duluth, Minnesota, Rep. No. EPA-600/3-76-095. 266 pp.
- Schelske, C. L. 1975. a. Simulation of aquatic ecology, pp. 38-42; b. Aquatic ecology and water quality, pp. 108-112. In A. P. Pinsak (ed.), Proc. workshop on priority Great Lakes environmental research initiatives, October 10-11, 1974. Great Lakes Environmental Research Laboratory, NOAA, Ann Arbor, Michigan.
- Santiago, M. A., S. Fielek, and C. L. Schelske. 1975. Automated method for sulfate determination in lake water. Water Quality Parameters, ASTM STP 573, Amer. Soc. for Testing and Materials, pp. 35-46.

- Schelske, C. L. 1974. Nutrient inputs and their relationship to accelerated eutrophication in Lake Michigan, pp. 59-81. In E. J. Monke (ed.), Biological effects in the hydrological cycle. Proc. of the Third Internat. Symp. for Hydrology Professors, Purdue Univ., Dept. of Agricultural Eng., 1971.
- Goldblith, S. A., C. L. Schelske, and others. 1967. Increasing high quality protein, pp. 295-371. Chapter 5. In The world food problem. Vol. II. A report of the President's Science Advisory Committee. U.S. Government Printing Office, Washington, D.C.
- Schelske, C. L., W. D. C. Smith, and J. Lewis. 1967. Fallout radioactivity in mollusks and fishes, pp. 9-12. In Annual Report of the Bureau of Commercial Fisheries Radiobiological Laboratory. U.S. Fish Wildl. Serv. Circular 270.
- Schelske, C. L. 1966. Interests of the Radiobiological Laboratory in estuarine ecology. Proc. of Symposium on Estuarine Ecology, Coastal Waters of North Carolina, pp. 35-44. Water Resources Research Institute, Univ. of North Carolina, Raleigh.
- Schelske, C. L. 1966. The fate of fallout radioactivity in an estuary. Am. Biol. Teacher 28: 363-380.
- Schelske, C. L., W. D. C. Smith, and J. Lewis. 1966. Radio-assay of scallops, pp. 12-14. In Annual Report of the Bureau of Commercial Fisheries Radiobiological Laboratory. U.S. Fish Wildl. Serv. Circular 244.
- Schelske, C. L., W. D. C. Smith, and J. Lewis. 1965. Radioactivity in the estuarine environment, pp. 8-13. In Annual Report of the Bureau of Commercial Fisheries Radiobiological Laboratory. U.S. Fish Wildl. Serv. Circular 217.