

BIOGRAPHICAL SKETCH

J. CURT STAGER

Natural Sciences, Paul Smith's College
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EDUCATION

B.A. 1979. Bowdoin College, Brunswick, ME; biology/geology.

Ph.D. 1985. Duke University, Durham, NC; zoology/geology. Advisor: D.A. Livingstone.

PROFESSIONAL EXPERIENCE

1987-present *PROFESSOR*, Paul Smith's College, upstate NY. Biology 141 & 142, Forest Soils 231, Stream Ecology Lab, Guided Research, Paleoecology 442, Evolution 332, Geology 132.

2002-present *ADJUNCT RESEARCH FACULTY*, Climate Change Institute, University of Maine, Orono, . Current focus: tropical climate changes of the last millennium.

2003 *FACULTY*: The Nyanza Project, University of AZ: Paleolimnology instructor in summer field course on Lake Tanganyika, Tanzania.

1999 *INTERIM DIRECTOR*, Adirondack Aquatic Institute, Paul Smiths, NY

1998-1999 *ACTING ASSISTANT DEAN*, Science/Liberal Arts Division, Paul Smith's College.

1996-1999 *ADJUNCT RESEARCH FACULTY*, Climate Change Research Center, University of New Hampshire, Durham. Focus: paleoclimate research on African lakes.

1994, 1995 *MARINE BIOLOGY INSTRUCTOR*. National Audubon Society, Hog Island, ME.

1992 *CORAL REEF MANAGEMENT INSTRUCTOR*; School for Field Studies. Turks & Caicos.

1989, 1990 *AQUATIC BIOLOGY INSTRUCTOR*, University of North Carolina, Wilmington. Summer Ventures Program, field research for gifted high school youths.

1985-1986 *INSTRUCTOR*, University of North Carolina, Wilmington. Marine Biology 362, Quaternary Studies (graduate level).

1985 *POSTDOCTORAL ASSOCIATE*, Duke University. Limnology and sediment coring of Cameroon crater lakes.

PEER-REVIEWED PUBLICATIONS

- 1984 Stager, J.C. The diatom record of Lake Victoria (East Africa): the last 17,000 years. pp. 455-476, In: D.G. Mann, (ed.), *Proc. Seventh Int. Symp. on Living and Fossil Diatoms, Philadelphia*. Koeltz, Koenigstein.
- 1985 Lundberg, J.G., and J.C. Stager. Microgeographic diversity in the neotropical knife-fish *Eigenmannia macrops* (Gymnotiformes, Sternopygidae). *Envir. Biol. Fish.* 13:173-181.
- 1986 Stager, J.C., P.R. Reinthal, and D.A. Livingstone. A 25,000 year history for Lake Victoria, East Africa, and some comments on its significance for the evolution of cichlid fishes. *Freshwater Biology* 16:15-19.
- 1987 Stager, J.C., and L.B. Cahoon. The age and trophic history of Lake Waccamaw, N.C. *J. Elisha Mitchell Sci. Soc.* 103:1-13.
- 1988 Stager, J.C. Environmental changes at Lake Cheshi, Zambia, since 40,000 years B.P. *Quat. Res.* 29:54-65. (doctoral dissertation)
- 1990 Maley, J., ... Stager, J.C., ... Zogning, A. (13 authors). Lithostratigraphy, volcanism, paleomagnetism, and palynology of Quaternary deposits from Barombi Mbo (West Cameroon): preliminary results. *J. Volcanol. Geotherm. Res.* 42:319-335.
- 1990 Cahoon, L.B., J.R. Kucklick, and J.C. Stager. A natural phosphate source for Lake Waccamaw, North Carolina, USA. *Int. Rev. ges Hydrobiol.* 75:339-351.
- 1992 Stager, J.C. Simple gravity corer suitable for educators. *J. Paleolimnol.* 7:253-255.
- 1992 Stager, J.C., and L.B. Cahoon. Distribution of benthic microalgae, pigments, and phosphate in Lake Waccamaw, North Carolina. *J. Elisha Mitchell Sci. Soc.* 108:117-126.
- 1994 Martin, M.R., and J.C. Stager. Assessing the human impact on lakes using sediment analyses. *Lake Reserv. Mgmt.* 9:95-96.
- 1996 Stager, J.C., and V. Chen. Fossil evidence of shell length decline in Queen Conch (*Strombus gigas* L.) at Middleton Cay, Turks and Caicos Islands, British West Indies. *Caribb. J. Sci.* 32:14-20.
- 1997 Stager, J.C., and P.A. Mayewski. Abrupt early mid-Holocene climatic transition registered at the equator and the poles. *Science* 276:1834-1836.
- 1997 Stager, J.C., B. Cumming, and L.D. Meeker. An 11,400-year, high-resolution diatom record from Lake Victoria, East Africa. *Quat. Res.* 47:81-89.
- 1997 Stager, J.C., P.R. Leavitt, and S. Dixit. Assessing impacts of past human activity on water quality in Upper Saranac Lake, NY. *Lake Reserv. Mgmt.* 13:175-184.
- 1998 Stager, J.C. Ancient analogues for recent environmental changes at Lake Victoria, East Africa. pp. 37-46 in *Environmental change and response in East African Lakes*. Kluwer.

- 1998 Beuning, K.R.M., K. Kelts, and J.C. Stager. Abrupt climatic changes associated with the arid Younger Dryas Interval in Africa. pp. 147-156 in *Environmental change and response in East African Lakes*. Kluwer.
- 1999 Stager, J.C., and R. Anfang. Preliminary evidence of environmental changes at Lake Bambili (Cameroon, West Africa) since 24,000 BP. *J. Paleolimnol.* 22:319-330.
- 2000 Stager, J.C., and T. Johnson. A 12,400 year offshore diatom record from Lake Victoria, East Africa. *J. Paleolimnol.* 23:373-383.
- 2001 Stager, J.C. Climatic change and African rain forests in the 21st century. Chapter 9 in W. Weber, L.J.T. White, A. Vedder, and L. Naughton-Treves (eds.) *African Rain Forest Ecology and Conservation*, Yale University Press.
- 2001 Stager, J.C. Did reclamation pollute Black Pond? *Adirondack J. Envir. Studies* 8:22-27.
- 2002 Stager, J.C., P.A. Mayewski, and L.D. Meeker. Cooling cycles, Heinrich Event 1, and the desiccation of Lake Victoria. *Palaeo-3*: 183:169-178.
- 2003 Stager, J.C., B. Cumming, and L.D. Meeker. A 10,200 year high-resolution diatom record from Pilkington Bay, Lake Victoria, Uganda. *Quat. Res.* 59:172-181.
- 2003 Scholz, C.A., King, J.W., Ellis, G.S., Swart, P.K., Stager, J.C., and S.M. Colman, Paleolimnology of Lake Tanganyika, East Africa, over the past 100 kyr. *J. Paleolimnol.*30:139-150.
- 2004 Stager, J.C., J.J. Day, and S. Santini. Comment on "Origin of the superflock of cichlid fishes from Lake Victoria, East Africa." *Science* 304:963.
- 2004 Mayewski, P.A., E. Rohling, J.C. Stager, and 13 others. Holocene climate variability. *Quat. Res.* 62:243-255.
- 2005 Stager, J.C., J. Westwood, D. Grzesik, and B.F. Cumming. A 5500 year environmental history of Lake Nabugabo, Uganda. *Palaeo-3* 218:347-354.
- 2005 Stager, J.C., Ryves D., Cumming B.F., Meeker L.D., and Beer J. Solar variability and the levels of Lake Victoria, East Africa, during the last millennium. *J. Paleolimnol.* 33:243-251.
- 2005 Maasch, K., Mayewski, P.A., Rohling, E., Stager, C., Karlén, K., Meeker, L.D., and Meyerson, E., Climate of the past 2000 years, *Geografiska Annaler* 87A:7-15.
- 2007 Stager, J.C., A. Ruzmaikin, D. Conway, P. Verburg, and P.J. Mason. Solar variability, ENSO, and the levels of Lake Victoria, East Africa. *J. Geophys. Res.* 112: D15106, doi: 10.1029/2006JD008362.
- 2007 Felton, A.A., ... J.C. Stager, *et al.* Paleolimnological evidence for the onset and termination of glacial aridity from Lake Tanganyika, East Africa. *Palaeo-3* doi:10.1016/j.palaeo.2007.04.003
- 2007 Stager, J.C., and T.C. Johnson. The late Pleistocene desiccation of Lake Victoria and the origin of its endemic biota. *Hydrobiologia* 596: doi:10.1007/210750-007-9158-2.
- 2008 Neumann, F., C Stager, L. Scott, H.J.T. Venter, and C. Weyhenmeyer. Holocene vegetation and climate records from Lake Sibaya, KwaZulu-Natal (South Africa). *Rev. Palaeobot. Palynol.* 152: 113-128.

2009 Stager, J.C., C. Cocquyt, R. Bonnefille, C. Weyhenmeyer, and N. Bowerman. A late Holocene paleoclimatic history of Lake Tanganyika, East Africa. *Quat. Res.* 72: 47-56.

2009 J.C. Stager, S. McNulty, C. Beier, and J. Chiarenzelli, 2009. Historical patterns and effects of changes in Adirondack climates since the early 20th century. *Adirondack Journal of Environmental Studies* 15: 14-24.

2009 J.C. Stager, R.E. Hecky, D. Grzesik, B.F. Cumming, and H. Kling. 2009. Diatom evidence for the timing and causes of eutrophication in Lake Victoria, East Africa. *Hydrobiologia* 636: 463-478.

OTHER TECHNICAL PUBLICATIONS

1992 Stager, J.C. Simple gravity corer suitable for educators. *J. Paleolimnol.* 7:253-255.

1994 Stager, J.C. Just do it! A research-based approach to introductory biology laboratory. *J. Coll. Sci. Tchg.* 24:91-93.

1994 Stager, J.C. Investigating Adirondack lakes. *Adirondack J. Environ. Stud.* 1:30-34.

1994 Martin, M.R., and J.C. Stager. Assessing the human impact on lakes using sediment analyses. *Lake Reserv. Mgmt.* 9:95-96.

1998 Stager, J.C., M. DeAngelo, and J. Swartz. A paleolimnological investigation of Black Pond, Franklin County, NY. (*A.C. Walker Foundation Research Series*)

1998 Stager, J.C., J. Hunter, and J. van Benschoten. A paleolimnological history of Long Pond, Franklin, County, NY. (*A.C. Walker Foundation Research Series*).

2002 Stager, J.C. and M.R. Martin. Global climate change and the Adirondacks. *Adirondack J. Envir. Stud.* 9:1-10.

2003 Stager, J.C., and T. Sanger. An Adirondack "Heritage Lake." *Adirondack J. Envir. Stud.* 10:6-10.

2006 Langen, T.A., ...J.C. Stager... and B.T. Green. Environmental impacts of winter road management at the Cascade Lakes and Chapel Pond. Final report, prepared for the NYS Department of Transportation, Albany, NY. *Clarkson Center for the Environment Report No. 1.*

NON-TECHNICAL PUBLICATIONS

- 1987 Silent Death From Cameroon's Killer Lake. *National Geographic* 172:404-420.
1990. Africa's Great Rift Valley. *National Geographic* 177:2-41.
1995. Adirondack butterflies. *Adirondack* (July/August), pp. 12-14.
- 1995 Stronger than dirt: How duff-munching worms are changing the Adirondack woods. *Adirondack Life* (March/April) pp. 14-16.
- 1996 Update on the ecological condition of Adirondack lakes. *Wild Earth*, 29-33.
- 1998 *Field Notes from the Northern Forest*. Syracuse University Press.
- 2000-2004 Twenty invited nature editorials for *Adirondack Explorer*.
2001. Two chapters in *Rooted in Rock: New Adirondack Writing 1975-2000*. (Ed., Jim Gould). Syracuse University Press.
- 2006 Clearwater Revival: Giving credence to the idea of a pristine pond. *Adirondack Life* (May/June), pp.14-20.
- 2006 Wild cats of the Adirondacks ("Meow Mix"). *Adirondack Life* (March/April), pp. 58-64.
- (in press) *Future Earth: The next 100,000 years of global cooling*. Book under contract with Saint Martin's Press, USA, Harper-Collins, Canada, and Scribe, Australia.

OTHER ACTIVITIES

- Advisory Board, Research Staff: Adirondack Watershed Institute (since 2000), Adirondack Aquatic Institute (1993-1999).
- Steering Committee Member: International Decade for the East African Lakes (1996).
- Co-host & writer of weekly, internationally broadcast science program, *Natural Selections*, with North Country Public Radio (since 1991). www.northcountrypublicradio.org/news/natural.php
- Director: Meadowlark Music Camp; a week-long music camp for adults in mid-coast Maine (1997-2007)

GRANTS

1997 A.C. Walker Foundation (\$2,000). *Lead-210 dating of a sediment core from Long Pond, Adirondack Park, New York.*

1998 National Science Foundation (\$60,000; ATM- 9808972), *A 9,000 year diatom record of climate fluctuations from Lake Victoria, East Africa, with decade-scale resolution.*

1998 A.C. Walker Foundation (\$1,200), *Lead-210 dating of a sediment core from Wolf Lake, Adirondack Park, New York.*

1999 National Science Foundation, Supplement (\$15,040), *Sediment coring and geological sampling at Lake Victoria, Uganda; National Science Foundation.*

1999 R.E.U. Supplement (\$17,000), *Student research at Lake Victoria, Uganda.*

2001 National Science Foundation (\$147,400; ATM-0117170), *Sediment records of environmental changes at Lake Victoria, East Africa, during the past millennium, with decade-scale resolution.*

2004 National Science Foundation (\$299,964; ATM-0401845) *Late Holocene geo-biologic records of climate changes at Lake Tanganyika, East Africa, with seasonal to decadal resolution.*

2006. National Geographic Society (\$20,000; #8040-06) *ENSO History derived from Peruvian sediment cores.*

2008 National Science Foundation (\$334,246; EAR-0822922) *High-resolution sediment records of late Holocene paleohydrology from the summer and winter rainfall regions of South Africa.*

STUDENT RESEARCH

Catharine Christie: The effect of human activity on lake conditions in southeastern Ontario in the recent (ca. 200 years) past. (Ph.D. committee, Queen's University, Ontario; 1992).

Jay Swartz: A paleolimnological investigation of Black Pond, NY. (Guided Research, SUNY-Plattsburgh, 1993).

Daun Dahlen: Paleolimnology of Rat Pond, NY. (M.Sc. committee, SUNY-Plattsburgh; 1996).

John Hunter, John van Benschoten: A paleolimnological history of Long Pond, Franklin, County, NY. (Guided Research, PSC, 1997; published *A.C. Walker Foundation Research Series*).

Thom Sanger: An unusually pristine Adirondack lake. (Guided Research, PSC, 1998).

Rebecca Anfang: Preliminary evidence of environmental changes at Lake Bambili (Cameroon, W. Africa) since 24,000 BP. (Guided Research, PSC, 1997. Published in *JOPL*, 1999).

Dustin Grzesik, Scott Haddam, Carlene Heimiller, Kristen Przywara: Sediment coring at Lakes Victoria & Nabugabo, East Africa. (NSF-funded expedition, 2000; *Palaeo-3*, 2005).

Nicole Cook, Jeff Dowd: The diatom record of Bear Pond, NY. (Senior Capstone, PSC; 2002).

MacKenzie Hall: Assessing human impact on Lake Bonaparte. (Senior Capstone, PSC; 2002).

Jordan Westwood: Paleolimnology of Lake Nabugabo, Uganda. (Senior Capstone, PSC, 2002; Published in *Palaeo-3*, 2005).

Sara Mochamer: Sediment coring in Winam Gulf, Lake Victoria, East Africa. (field research funded by NSF and by International Center for Research in Agroforestry, Kenya; 2002).

Jason Fitzpatrick: Sediment coring at Lake Sibayi, South Africa. (field research funded by NSF, with S.A.Council for Geosciences; 2003).

Tammy Karst-Riddoch: Sedimentary diatoms from alpine and subarctic lakes as indicators of environmental and climatic conditions. (Ph.D., Queen's U., Ontario; 2004).

Matt Hazzard: Late Holocene trends in diatom abundance in Lake Victoria, East Africa. (Guided Research, PSC, 2000). Diatom record of lake level fluctuations at Lake Sibaya, South Africa, over the last 400 years. (Senior Capstone, PSC; 2004).

Jerome Madson: Coring at Lakes Sibaya and Fundudzi, South Africa. (field research funded by NSF, with S.A.Council for Geosciences, 2004, with Matt Hazzard; Senior Capstone, PSC, 2005).

Dan DeSorcy: Documenting Adirondack Heritage Lakes (Senior Capstone, Spring, 2007).

Brendan Wiltse: Paleolimnological study of Lake George, NY. (Senior Capstone, Spring, 2007).

Kelly Kirsten-Sardinha: Holocene environmental change at Groenvlei, Knysna, South Africa. (MSc committee, University of Cape Town, South Africa; 2008).