

**JOHAN CORNELIS VAREKAMP**  
*Harold T. Stearns Professor of Earth Science*  
**Earth & Environmental Sciences, 265 Church Street**  
**Wesleyan University, Middletown CT 06459-0139 USA**  
<http://www.wesleyan.edu/ees/JCV/Varekamp.html>

**PERSONAL:**

**Born** January 21, 1951, Utrecht, The Netherlands, **Married** to Ellen Thomas; two children  
Dutch Citizen; [jvarekamp@wesleyan.edu](mailto:jvarekamp@wesleyan.edu) tel: 01 860 685 2248; fax 01 860 685 3651

**EDUCATION:**

Ph.D. 1979 Utrecht University, The Netherlands; Geochemistry  
Thesis: Geology and petrology of the Vulsinian volcanic area, Latium, Italy.  
M.S. 1975 Utrecht University, The Netherlands  
Honors: 1) Geochemistry, Structural Geology; 2) Sedimentology.  
B.S. 1971 Utrecht University, The Netherlands, Honors: Geology.

**PROFESSIONAL EXPERIENCE:**

2005–present Harold T. Stearns Professor of Earth Science  
2005-2008 Chair, E&ES department  
2005 Director ECCO program (Wesleyan-Wellesley-Vassar) in Bologna, Italy  
2003-present Adjunct Professor, Latin American Studies Program, Wesleyan University  
2001-2005 George I. Seney Professor of Geology (Chair, E&ES)  
1996-present Professor, E&ES, Wesleyan University, CT, USA (Chair EES 2000-2002 )  
Co-Director, Environmental Studies Certificate Program, 1998-2003  
1995 Faculty Fellow, Doshisha University, Kyoto, Japan  
1991 Visiting Professor, Laboratorio di Geochimica Isotopica, CNR, Pisa, Italy  
1990-1991 Sabbatical visitor, Dept. of Earth Sciences, Cambridge University, U.K.  
1990-1995 Associate Professor, E&ES, Wesleyan University, CT, USA, Chair E&ES  
1986 Sabbatical visitor, Utrecht University, The Netherlands  
1983-1990 Assistant Professor E&ES, Wesleyan University, CT, USA  
1979-1982 Postdoctoral fellow, Dept. of Geology, Ariz. State Univ., Tempe AZ, USA  
1975-1979 Instructor, Dept. of Structural Geology, Utrecht University, The Netherlands

**RESEARCH INTERESTS:**

**Volcanology/Geochemistry:** Element recycling in arcs; Magma chamber processes; Eruption dynamics; Chemistry of hydrothermal systems and crater lakes  
**Environmental studies:** Sea level rise; Geochemistry of mercury/heavy metals; Chemical and isotopic proxies for paleoclimate reconstruction; eutrophication/contamination of large estuaries, Global Climate Change, human impact on local and global scales

## **PROFESSIONAL ACTIVITIES/POSITIONS**

Co-chief scientist, 1984, Snellius II expedition Indonesia, volcanology program  
Convener/organizer, 1996, AGU-Chapman conference on crater lakes, Crater Lake, OR  
2004, IAVCEI workshop on Volcanic Lakes, Caviahue, Argentina  
2005, Conference on Coastal Pollution Issues, Bologna, Italy  
Chair, 2000-present, IAVCEI, Committee on Volcanic Lakes  
Chair, 2005-present, AGU, VGP committee on Education and Outreach  
Member, 2001-2003, Advisory Board of 'Save the Sound'  
Member, 1997-2004, Science Advisory Committee, Connecticut Audubon Coastal Center  
Member, 1996-present, Senior Board, Connecticut Sea Grant College Program, Groton, CT  
Member, 2002-present, EPA, LIS Science and Technology Advisory Committee (STAC)  
Member, 2005 – present, Board of Trustees, CT Fund for the Environment / Save the Sound  
Member, 2005 - present, Board of Directors, CT Agricultural Experiment Station

## **EDITORIAL POSITIONS:**

Editorial Board, 2002-2006, **J. Volcanology and Geothermal Research**  
Editor, 1998-2001, **Eos**, AGU, Volcanology-Geochemistry-Petrology section  
Editor, 2000-2001 McGraw Hill, **Encyclopedia of Science and Technology**  
Co-editor, 1984, **J. Volcanology Geothermal Research**, Special Issue, El Chichon eruption  
Co-editor, 1997-1999, **J. Volcanology Geothermal Research**, Special Issue, 'Crater Lakes'  
Co-editor, 1999-2000, **J. Coastal Research**, Special Issue, 'Long Island Sound'  
Co-editor, 2006-2008, **J. Volc. Geothermal Research**, special issue on 'Volcanic Lakes'  
Co-editor, 2008-, **J. Volcanology Geothermal Research**, special issue on Continental Arc  
Volcanism, in honor of James Luhr  
Co-Editor, 2006-, **IAVCEI-Geol. Soc. London book series**, Acid Lakes and Rivers of  
Copahue Volcano, Argentina  
Steering committee member EPA, 2007, monograph on Long Island Sound

## **PROFESSIONAL SOCIETY AFFILIATIONS / WORKING GROUP**

### **MEMBERSHIPS:**

Geochemical Society; Am. Geophysical Union; Geol. Soc. Am.; Int. Assoc. of Volcanology  
and Chem. of the Earth's Interior; Royal Netherlands Geological and Mining Society;  
IAVCEI comm. explosive volcanism; IAVCEI comm. volcanic gases; IAVCEI Committee of  
Volcanic Lakes.

## **Publications, Grantmaking, & Citations (December 2008)**

**61 peer reviewed articles, 220 abstracts, 1460 citations, h-index: 20**

**\$1.47 million external research funding, \$3.8 million external programmatic funding,**

**\$53,000.- Wesleyan University research and teaching funding.**

## RESEARCH SUPPORT

\$100,000.	1984	Volcanic studies in Indonesia, Snellius II expedition
\$ 4,000.	1984	Bradley Mining Co., Hg pollution assessment, Clear Lake CA
\$ 1550.	1985	Various agencies, heavy metal studies in CT
\$25,000	1985-1987	NSF, volcanologic research in Indonesia
\$ 5,000.	1988	Combustion Engineering, Inc., Hg pollution assessment
\$ 2,500.	1989	NECUSE, research support, volcanology
\$ 5200.	1989/1994	Northeast Utilities, Miles, Inc., Acid rain project
\$ 17,400.	1990	CT SeaGrant, sea level rise studies
\$ 30,000.	1991	Northeast Utilities, neotectonic studies, Connecticut
\$110,000.	1991-1994	NOAA, sea level rise studies
\$ 38,000.	1992-1993	CT SeaGrant, coastal salt marsh studies
\$ 56,000.	1994-1996	CT SeaGrant, sea level rise studies
\$100,000.	1994-1996	NOAA, sea level rise studies
\$ 3000.-	1993	NECUSE, research support, volcanology
\$59,073.-	1995	Long Island Sound Research Fund/ CT DEP, Hg pollution LIS
\$ 4500.-	1995-1997	Northeast Utilities, Pb pollution
\$56,000.-	1996-1998	CT SeaGrant, coastal marsh studies
\$57,000.-	1996-1998	LISRF, Mercury contamination in CT
\$20,000.-	1996	NSF, DOE and USGS Chapman meeting support
\$ 9950.-	1996	USGS, Hg studies, LIS
\$57,800.-	1996	Perkin and Elmer Inc, ICP-AES instrument donation
\$47,750.-	1998-2000	CT SeaGrant, coastal salt marsh evolution
\$16,000.-	1998	USGS, Hg and trace metal studies, LIS
\$38,500.-	1999	NSF, Hydrogeochemistry of Copahue volcano, Argentina
\$15,960.-	1999	USGS, Marine Atlantic Branch, Long Island Sound studies
\$25,000.-	1999	Yale University, instrument donation (g ray counters)
\$55,800.-	2000-2002	CT SeaGrant, LIS paleoenvironments
\$77,000.-	2000-2002	EPA - LIS paleoenvironmental studies
\$44,000.-	2000-2004	USGS metal pollution studies
\$123,000.-	2001-2002	Lobster Research Fund: Environmental Studies of LIS
\$55,500.-	2002-2004	CT SeaGrant, Hatting Mercury in the Housatonic watershed
\$1000.-	2002	CT Assoc. of Wetland Sc., LEFOR award (with Beth Goldoff)
\$15,600.-	2003	National Geographic Society, Volcanic Research in the Andes
\$128,000.-	2004	EPA, Nitrogen isotope tracers for nutrient cycling in LIS
\$21,250.-	2004	NSF, Workshop support, Volcanic Lakes, Argentina
\$2000.-	2005	American Philosophical Society, Franklin Grant
\$36,600.-	2007	Keck Consortium
\$2500.-	2008	CT SeaGrant College program / Sounds Conservancy

**FUNDING FOR INSTITUTIONAL/PROGRAMMATIC SUPPORT:**

\$290,000.-	2000-2006	Mellon Foundation, Environmental Studies support
\$3,500,000	2000	Schumann Foundation, Env. Studies Certificate Program
\$25,000.-	2000	NSF, Funding for Coastal Center of the CT Audubon Society

**WESLEYAN UNIVERSITY GRANTS:**

\$920.	1983	Volcanic studies on Nisyros, Greece
\$800.	1987	Petrologic studies of Italian potassic volcanics
\$900.	1985	Heavy metals in Connecticut River estuarine sediments
\$1,025.	1986	Petrology of King's Trough basalts, Atlantic Ocean
\$1,250.	1989	Acid rain monitoring programs
\$1200.-	1992	Mercury abundances in deep sea clays
\$1000.-	1993	McNair Fund, undergraduate research support, volcanology
\$1100.-	1995	Pedagogical grant, Global Change course prep.
\$1487.-	1998	Long Island Sound pilot study
\$19,950.-	1999	Establishment of an atmospheric CO <sub>2</sub> monitoring facility
\$10,800.-	2002	Creation of a GIS laboratory and GIS course
\$3000.-	2005	Ethics in Environmental Science
\$1000.-	2008	Feet to the Fire (Art-Science module)
\$5500.-	2008	Mellon Faculty Grant (Block island work)
\$2500.-	2008	Arsenic and Phosphorous in acid rivers, Copahue, Argentina

**UNIVERSITY SERVICE:**

Chairman: E&ES (1992-1993; 2000-2002, 2005-2008)

Member: Student Affairs Committee (1985-1986; 1991-1992)  
Committee Human Rights and Relations (1986-1987; 1991-1992)  
Tenure Task Force (1988-1989); Shop Committee (1989, 1996; 1997)  
Science Planning Committee (1993); Comm. Gen. Education (1996-1997);  
Graduate Council (1998-1999), Comm. International Studies (2001-present)  
Review and Appeals Board (2003-present). Taskforce on the hiring of women  
in the sciences  
University Committee on 'College of the Environment' 2008-

Co-Director: Environmental Studies Certificate program, 1998-2003

Director: Wesleyan-Wellesley-Vassar ECCO program in Bologna, Italy (2005)

### **PUBLICATIONS IN PROFESSIONAL JOURNALS:**

1. Wensink, H., Zijdeveld, J.D.A. and **Varekamp**, J.C., 1978: Paleomagnetism and ore mineralogy of some basalts of the Geirud formation of Late Devonian-Early Carboniferous age from Southern Alborz, Iran. *Earth Plan. Sc. Lett.*, 41, 441-450.
2. **Varekamp**, J.C., 1979: The geology and petrology of the Vulsinian volcanic area, Latium, Italy. *Geologica Ultraestina*, 22, p. 384.
3. Wensink, H. and **Varekamp**, J.C., 1980: Paleomagnetism of basalts from Alborz. Iran part of Asia in the Cretaceous. *Tectonophysics*, 68, 113-129.
4. **Varekamp**, J.C., 1980: The geology of the Vulsinian volcanic area, Latium, Italy. *Bull. Volc.*, 43, 487-503.
5. **Varekamp**, J.C., 1980: Relations between tectonics and volcanism in the Roman province, Italy. In: *Tephra studies*. Eds. Self, S. and Sparks, R.S.J., NATO Advanced Study Institute Series, Series C, 219-225.
6. **Varekamp**, J.C. and Buseck, P.R., 1981: Mercury emissions from Mt. St. Helens during September 1980. *Nature*, 293, 555-556.
7. Thomas, E., **Varekamp**, J.C. and Buseck, P.R., 1982: Zinc enrichment in the phreatic ashes from Mt. St. Helens. *J. Volc. Geoth. Res.*, 12, 339-350.
8. **Varekamp**, J.C. and Thomas, E., 1982: Chalcophile elements in Cretaceous / Tertiary boundary sediments: Terrestrial or extraterrestrial?. *GSA, Spec. Paper* 190, 461-467.
9. Barton, M., **Varekamp**, J.C. and van Bergen, M.J., 1982: Complex zoning of clinopyroxenes in the lavas of Vulcini, Latium, Italy: Evidence for magma mixing. *J. Volc. Geoth. Res.*, 14, 361-388.
10. **Varekamp**, J.C., 1983: The significance of mafic nodules in the ultra-potassic rocks from Italy, a discussion. *J. Volc. Geoth. Res.*, 16, 161-165.
11. **Varekamp**, J.C. and Buseck, P.R., 1983: Hg anomalies in soils: a geochemical exploration method for geothermal areas. *Geothermics*, 12, 29-47.
12. **Varekamp**, J.C. and Buseck, P.R., 1984: The speciation of mercury in hydrothermal systems, with applications for ore deposition. *Geochim. Cosmochim. Acta*, 48, 177-186.
13. **Varekamp**, J.C. and Buseck, P.R., 1984: Changing mercury anomalies in Long Valley, California: Indication for magma movement or seismic activity. *Geology*, 12, 283-286.
14. **Varekamp**, J.C., Luhr, J.F. and Prestegard, K.L., 1984: The 1982 eruptions of El Chichon volcano (Chiapas, Mexico): Character of the eruptions, ash-fall deposits, and gasphase. *J. Volc. Geoth. Res.*, 23, 39-68.
15. Luhr, J.F., Carmichael, I.S.E. and **Varekamp**, J.C., 1984: The 1982 eruptions of El Chichon volcano, Chiapas, Mexico: Mineralogy and petrology of the anhydrite-bearing pumices. *J. Volc. Geoth. Res.*, 23, 69-108.
16. **Varekamp**, J.C. and Buseck, P.R., 1986: Global mercury flux from volcanic and geothermal sources. *Applied Geochemistry*, 1, 65-73.
17. **Varekamp**, J.C., Thomas, E., Germani, M. and Buseck, P.R., 1986: Particle chemistry of the volcanic plumes of Mt. Etna and Mt. St. Helens. *J. Geophys. Res.*, 91, B12, 12,233-12,248.
18. **Varekamp**, J.C., and Waibel, A., 1987: Natural cause for mercury pollution at Clear Lake, California, and paleotectonic inferences, *Geology* 15, 1018-1021.

19. **Varekamp**, J.C., 1988: Lake pollution modelling. *J. Geol. Educ.*, 36, 4-9.
20. **Varekamp**, J.C., and Kalamarides, R., 1989: Hybridization processes in leucite tephrites from Vulcini (Italy), and the evolution of the Italian potassic suite. *J. Geophys. Res.*, 94, B4, 4603-4618.
21. Poorter, R.P.E., **Varekamp**, J.C., van Bergen, M.J., Kreulen, R. Sriwana, T., Vroon, P.Z., and Wirakusumah, A.D., 1989: The Sirung volcanic boiling spring: An extreme chloride-rich, acid brine on Pantar (Lesser Sunda Islands, Indonesia). *Chemical Geology*, 76, 215-228.
22. **Varekamp**, J.C., van Bergen, M.J., Vroon, P.Z., Poorter, R.P.E., Wirakusumah, A.D., Erfan, R.D., Suharyono, K., and Sriwana, T. 1989: Volcanism and tectonics in the eastern Sunda Arc, Indonesia, *Neth. J. of Sea Res.*, 24, 303-312.
23. Poorter, R.P.E., **Varekamp**, J.C., Sriwana, T., van Bergen, M.J., Erfan, R.D., Suharyono, K., and Wirakusumah, A.D., 1989: Geochemistry of hot springs and fumarolic gases from the Banda Arc and Eastern Sunda Arc. *Neth. J. of Sea Res.*, 24, 323-331.
24. van Bergen, R.D., Erfan, R.D., Sriwana, T., Suharyono, K., Poorter, R.P.E., **Varekamp**, J.C., Vroon, P.Z., and Wirakusumah, A.D., 1989: Spatial variations in geochemical signatures of arc volcanism in East Indonesia. *Neth. J. of Sea Res.*, 24, 313-322.
25. Poorter, R.P.E., **Varekamp**, J.C., Poreda, R.J., vanBergen, M.J. and Kreulen, R., 1991: Geochemistry and isotopic composition of volcanic gases from the Banda and Eastern Sunda arcs, Indonesia, *Geochim. Cosmochim. Acta* 55, 3795-3807.
26. Limburg, E. and **Varekamp**, J.C., 1991: Young Pumice deposits on Nisyros, Greece. *Bull. of Volc.* 54, 68-77.
27. Thomas, E., and **Varekamp**, J.C., 1991: Paleo-Environmental analyses of marsh sequences (Clinton, CT): Evidence for punctuated sealevel rise during the latest Holocene. *J. of Coastal Res.*, SI, v.11, 125-158.
28. **Varekamp**, J.C., 1991: Trace element geochemistry and pollution history of mudflat and marsh sediments from the Connecticut coastline. *J. of Coastal Res.*, SI, v.11, 105-123.
29. **Varekamp**, J.C., Thomas, E. and van de Plassche, O., 1992: Relative sea level rise and climate change over the last 1500 years. *Terra Nova* 4, Spec. Issue (ed. Wezel), 293-304.
30. **Varekamp** J.C., Kreulen R., Poorter R.P.E. and VanBergen M.J. , 1992: Carbon sources of arc volcanism with applications for the carbon cycle. *Terra Nova* 4, Spec. Issue (ed. Wezel), 363-373.
31. VanBergen, M.J., Vroon, P.Z., **Varekamp**, J.C., and Poorter R.P.E., 1992: The origin of the potassic rock suite of Batu Tara (East Sunda Arc, Indonesia). *Lithos* 28, 261-282.
32. **Varekamp**, J.C., 1992: Some remarks on volcanic vent evolution during Plinian eruptions. *J. Volc. Geotherm. Res.* 54, 309-318.
33. Vroon, P.Z., Van Bergen, M.J., White W.M., and **Varekamp**, J.C., 1994: Sr-Nd-Pb isotope systematics of the Banda arc, Indonesia: Combined subduction and assimilation of continental material. *J. Geophys. Res.* 98, 22,349-22,366.
34. Pasternack, G. and **Varekamp**, J.C., 1994: The geochemistry of the Keli Mutu crater lakes, Flores Indonesia. *Geochemical Journal* 28, 243-262.

35. Francalanci, L., **Varekamp**, J.C., Vougioukalakis, G., Defant, M.J., Innocenti, F., and Manetti, P., 1995: Crystal retention, fractionation, and crustal assimilation in a convecting magma chamber, Nisyros volcano, Greece, *Bull. of Volcanol.* 56, 601-620.
36. Nydick, K.R., Bidwell, A., Thomas, E. and **Varekamp**, J.C., 1995: A sealevel rise curve from Guilford, CT, *Marine Geology* 124, 137-159.
37. Pasternack, G.B. and **Varekamp** J.C., 1997: Volcanic lake systematics.I. Physical constraints. *Bull. Volc.* 58, 528-538.
38. Hoogewerff, J.A., VanBergen, M.J., Vroon, P.Z., Hertogen, J., Wordel, R., Sneyers, A., Nasution, A., **Varekamp**, J.C., Moens, H.L.E., and Mouchel, D., 1997: U-series, Sr-Nd-Pb isotope and trace-element systematics across an active island arc-continent collision zone: Implications for element transfer at the slab-wedge interface. *Geochimica Cosmochimica Acta*, 61, p.1057-1072.
39. **Varekamp**, J.C. and Thomas, E., 1998: Climate change and the rise and fall of sea level over the millenium. *EOS* 79, p. 69-75.
40. **Varekamp**, J.C. and Thomas, E. , 1998: Volcanic and anthropogenic contributions to global weathering budgets. *J. Geochem. Exploration*, 62, 149-159.
41. **Varekamp**, J.C., Thomas, E., and Thompson, W.G., 1999: Sea level - climate correlation during the past 1400 yr: A comment. *Geology*, 27, 189-190.
42. **Varekamp**, J.C., and Kreulen, R., 2000, The stable isotope geochemistry of volcanic lakes: examples from Indonesia. *J.Volc. Geothermal Res.* 97, 309-327.
43. Sriwana, T., VanBergen, M.J., and **Varekamp**, J.C., 2000, The geochemistry of Kawah Putih, an acid crater lake in Java, Indonesia, *J.Volc. Geothermal Res.* 97, 77-104.
44. **Varekamp**, J.C., Pasternack, G.B. and Rowe, G.L., 2000, Volcanic lake systematics II. Chemical constraints. *J.Volc. Geothermal Res.* 97, 161-180.
45. **Varekamp**, J.C., Buchholtz ten Brink, M.R., Mecray, E.L., and Kreulen, B., 2000, Mercury in Long Island Sound sediments. *J. Coastal Research. Spec. issue*, 16, 613-626.
46. Thomas, E., Gapotchenko\*, T., **Varekamp**, J.C., Buchholtz ten Brink, M.F., and Mecray, E., 2000, Foraminifera in Long Island Sound surface sediments in 1999: evidence for recent environmental change, *J. Coastal Res., Spec. issue*, 16, 641-655.
47. **Varekamp**, J.C., Ouimette\*, A., Herman\*, S., Delpino, D., and Bermudez, A., 2001, The 1990-2000 eruptions of Copahue, Argentina: a 'bee-hive volcano' in turmoil. *Geology* 29, 1059-1062 (with cover photo).
48. Fehn, U., Snijder, G. and **Varekamp**, J.C., 2002, Evidence for marine sediment recycling in subduction zones from <sup>129</sup>I in crater lakes. *J. Volcanology Geothermal Research*, 115, 451-460.
49. **Varekamp**, J.C., Kreulen\*, B., and Buchholtz ten Brink, M.F, and Mecray, E., 2003, Mercury contamination chronologies from Connecticut wetlands and Long Island Sound sediments. *Environmental Geology*, 43, 268-282.
50. **Varekamp**, J.C., 2003, Lake contamination models: evolution towards steady state. *J. of Limnology*, 62 (suppl.1), 67-72.
51. **Varekamp**, J.C., Ouimette\*, A. and Kreulen. R., 2004, The magmato-hydrothermal system of Copahue volcano, Argentina. *Proceedings of the 11<sup>th</sup> Water Rock Interaction Symposium*, (eds Wanty, R.B. & Seal, R.R.), v.1, 215-218, Balkema Publishers, Leiden.

52. **Varekamp, J. C.**, 2004, Copahue Volcano: A modern terrestrial analog for the Opportunity landing site. *Eos*, 85, #41, 12 October 2004, p. 401-407.
53. **Varekamp, J. C.**, Mecray, E.L., and Zierzow\*, T., 2005, Once spilled, still found: Metal contamination in Connecticut wetlands and Long Island Sound sediment from historic industries. Chapter in book on 'Our Changing Coasts', editors Whitelaw and Visiglione, E.Elgar Publishers, Chapter 9, p. 122-147.
54. Gammons C. H., Wood S. A., Pedrozo F., **Varekamp J.C.**, Nelson B., Shope C.L., and Baffico, G. 2005 Hydrogeochemistry and rare earth element behavior in a volcanically acidified watershed in Patagonia, Argentina. *Chemical Geology* 222, 249-267.
55. **Varekamp, J.C.**, 2005, Reply to comment by Jorge Guala-Valverde on: Lake contamination models for evolution towards steady state. *J. Limnology* 24, 159-160.
56. **Varekamp, J. C.**, J. Maarten deMoor\*, Matt D. Merrill\*, Anna S. Colvin\*, Adam R. Goss\*, Pieter Z. Vroon and David R. Hilton, 2006, The Geochemistry and Isotopic Characteristics of the Caviahue Copahue Volcanic Complex, Province of Neuquen, Argentina. *GSA Special Paper*, 407, 317-342.
57. Francalanci, L., **Varekamp, J. C.**, Vougioukalakis, G.E., Innocenti, F. and Manetti, P., 2007, Is there a compositional gap at Nysiros volcano? A Comment. *Lithos*. [doi:10.1016/j.lithos.2006.06.016](https://doi.org/10.1016/j.lithos.2006.06.016).
58. Dunagan\* S. C., Gilmore M. S. and **Varekamp J. C.**, 2007, Effects of mercury on visible/near-infrared reflectance spectra of mustard spinach plants (*Brassica rapa P.*), *Environmental Pollution*, 148, 301-311, [doi:10.1016/j.envpol.2006.10.023](https://doi.org/10.1016/j.envpol.2006.10.023).
59. **Varekamp, J.C.** 2006, The historic fur trade and climate change. *Eos*, 87, # 52, 26 December 2006.
60. Hernández, P.A., N. M. Pérez, **J. C. Varekamp**, B. Henriquez, A. Hernández, J. Barrancos, E. Padrón David Calvo and G. Melián, 2007, Crater lake temperature changes of the 2005 eruption of Santa Ana volcano, El Salvador, Central America, *Pure and Applied Geophysics*, special Issue - Volcano Monitoring; 164, 2507-2522.
61. **Varekamp, J. C.**, 2008, The acidification of glacial Lake Caviahue, Province of Neuquen, Argentina. Special issue 'Volcanic Lakes', *J. Volcanology and Geothermal Research*, special issue Volcanic Lakes (Varekamp and VanBergen, editors), Volume 178, Issue 2, p. 184-196. [doi:10.1016/j.jvolgeores.2008.06.016](https://doi.org/10.1016/j.jvolgeores.2008.06.016)
62. **Varekamp, J.C.**, Herman\*, S., Ouimette\*, A., Flynn\*, K., Bermudez, A., and Delpino, D., 2009, Naturally acid waters from Copahue volcano, Argentina. *Applied Geochemistry*, spec. issue on 'Geogenic acid fluids' (in press).
63. **Varekamp, J. C.**, Thomas, E. and Lewis, R., The early history of Long Island Sound. *Geology* (in revision after review).
64. **Varekamp, J. C.**, James T. Luhr and Gregory Cutter. Adsorbed Volatiles On Volcanic Ashes. (in revision after review) *J. Volc. Geothermal Research*, Spec. Issue JT Luhr
65. **Varekamp, J. C.**, Hesse, Astrid\*, and Mandeville, C., Back arc volcanism in the Southern Andes near Zapala, Argentina. *J. Volc. Geothermal Research*, Spec Issue JT Luhr.

### MANUSCRIPTS:

1. Bani, P., and **Varekamp, J. C.**, Chemistry changes and SO<sub>2</sub> emissions in Vouli crater lake in 2005- 2006, Ambae volcano, Vanuatu. *J. Volcanol. Geothermal Research* (to be re-submitted).
2. **Varekamp, J. C.**, Daniel Delpino, Adriana Bermudez, Conor Gately\*, Patricia Sruoga, Andrew Ouimette\* and Amy Gomberg\*, Exotic exhalations from active Southern Andes volcanoes. *Geology*
3. **Varekamp, J. C.**, Chemical and thermal monitoring of active volcanoes. *GSA Today*
4. **Varekamp, J. C.**, Neupane\*, A., Gyure, R., and Gilmore, M. S., Mercury cycling in natural and genetically modified cottonwood plants. *Science of the Total Environment*
5. Ouimette, A. and **Varekamp, J. C.**: The hydrothermal system of Copahue volcano, Argentina. *Earth and Planetary Science Letters*.
6. **Varekamp** et al. The human impact on Long Island Sound – chemical and ecological effects. *Science*.

### CHAPTERS IN TEXTBOOKS:

- Varekamp, J.C.**, 1990: Volcanic Gases, Chapter in textbook: "Earth Sciences", Open University, The Netherlands, Heerlen, v. 2, Plate tectonic processes, p. 150-175.
- Varekamp, J.C.**, 1990: Geology of the ocean floor, Chapter in textbook: "Earth Sciences", Open University, The Netherlands, Heerlen, v. 2, Plate tectonic processes, p. 6-32.
- Varekamp, J.C.**, 1992: Sea level fluctuations, Chapter in textbook: *Geology around the Ice ages*, Open University, The Netherlands, Heerlen, v. 1, p. 213-232.
- Varekamp, J.C.**, 1992: The carbon cycle, Chapter in textbook: *Geology around the Ice ages*, Open University, The Netherlands, Heerlen, v.1, p.235-269.

### Short articles in support volume (v.4) for "Earth Sciences" (1990)

Magnetism of the ocean crust, p.43-46; Biological activity at submarine vents, p.47-50.  
Water in silicate melts, p.74-76; The atmosphere, p.77-82; Helium isotopes, p.83.

### Short articles in support volume (v.3) for "Geology around the Ice ages" (1992)

Sedimentology of estuaria and delta's, p.34-39; <sup>14</sup>C, U/Th and <sup>10</sup>Be dating methods, p.40-44.  
Economic damage as a result of rising sea levels, p.45-49; Volcanic CO<sub>2</sub>, p.50-53.

### BOOKS

**Acid Rivers and Lakes of Copahue Volcano, Argentina** (Editors: Varekamp, J.C. and Geller, W. *IAVCEI-Geological Society of London, Volcanology book series*)

1. **Introduction** – Geller, Varekamp, Coffey
2. **The Copahue – Caviahue Volcanic Complex** (Varekamp, Bermudez, Delpino, Goss)
3. **The hydrothermal system of Copahue volcano** (Varekamp, Pedrozo, Gammons)
4. **Hydrochemistry of the Rio Agrio** (Gammons, Varekamp, Pedrozo, Parker, Kringel)
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- July 2005, National Geographic Magazine, Water on Mars. Short section on my work in Argentina.
- April 2006, 2006 - six newspaper articles and interviews on Global Climate Change
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- Varekamp, J.C.**, and Patrick, M., Crater lake evolution during volcanic unrest: case study of the 2005 phreatic eruption of Santa Ana volcano, El Salvador. AGU fall meeting abstracts
- Varekamp, J.C.**, Kading T., Fehn U., and Lu, Z., Mercury and Iodine systematics of volcanic arc fluids. AGU fall meeting
- Kading, T., Brophy, M., and **Varekamp, J.C.**, Compositional Trends in acid fluids of Copahue volcano, Argentina: Evidence for a failed eruption in 2004? AGU fall meeting.
- Neurath, R., Newton, R., **Varekamp, J.C.**, 2009, Atmospheric Mercury deposition in an isolated environment: a 300-year record at Block Island, Rhode Island. GSA NE meeting, Portland, Maine, abstracts volume.

### INVITED TALKS:

- 1980: Mercury anomalies in geothermal areas in the Cascades. U.S. Geol. Survey Cascadia meeting, Menlo Park, California.
- 1980: Mercury anomalies in the Lassen KGRA. U.S. Geol. Survey "Lassen Park geothermal investigators meeting", Menlo Park, California.
- 1982: The 1982 eruption of El Chichon volcano: Nature of the eruption, ash and volatiles. Amer. Geophys. Union, Fall meeting, San Francisco.
- 1983: Geochemistry of Hg. University of Connecticut, Avery Point, Connecticut, 16 September.
- 1983: Geochemistry of Hg in hydrothermal environments. University of Rhode Island, Narragansett, Rhode Island, 28 October.
- 1984: The 1982 eruption of El Chichon volcano. Eastern Connecticut State University, 15 February.
- 1984: The 1982 eruption of El Chichon volcano. University of Connecticut, Storrs, CT, 23 February.
- 1984: Tectonic framework of potassic volcanism in central Italy. University of Connecticut, Storrs, CT, 23 February.
- 1986: Potassic volcanism in the Indonesian arc. Dutch Institute for Research at Sea (NIOZ), Texel, The Netherlands, 19 October.
- 1987: Target Earth 65 Ma BP. Dept. of Astronomy, Wesleyan University, Middletown, Connecticut, 4 March.
- 1987: Potassic volcanism in eastern Indonesia. Univ. of South Florida, Tampa, Florida, 3 April.
- 1987: Plate-tectonic implications of Sunda/Banda arc magmatism. Int. Symp. Results of Snellius II exped., Jakarta, Indonesia, 24 November.
- 1988: Shallow evolution of calc-alkaline magma chambers. Brown University, Providence, Rhode Island, 25 October .
- 1989: The chemistry of volcanic gases: applications and techniques. Chemistry Seminar, Wesleyan University, 6 October.
- 1990: Punctuated sea level rise over the last 2000 years and correlation with paleo-climates.

- University of Connecticut, Avery Point, Connecticut, 6 April.
- 1991: Sea level rise and climate oscillations during the last 2000 years, Department of Earth Sciences, University of Cambridge, U.K, 30 January.
- 1991: Element recycling in the Indonesian arc magmas. CNR lab. Isotope Geochemistry, Pisa, Italy, 16 February.
- 1991: Sea level rise and climate oscillations during the last 2000 years. University of Florence, Italy, 20 February.
- 1991: Sea level rise and climate oscillations during the last 2000 years, Center for Global Change, Yale University, New Haven, CT, 21 April.
- 1991: Subduction-related ultrapotassic and associated volcanics: clues for multiple magma sources from Eastern Indonesia, EUG meeting, Strassbourg, France, 18 March.
- 1992: The geochemistry of the Keli Mutu crater lakes - Int. Working Group on Crater Lakes, Misasa, Japan, 21 October.
- 1992: The geochemistry of the Keli Mutu crater lakes - University of Rhode Island, 18 December.
- 1994: Sea level rise: the last 350 years. AGU fall meeting, Union session.
- 1995: Element recycling in the Indonesian arc. Institute for the Study of the Earth Interior, Misasa, Japan, 15 February.
- 1995: Element recycling in the Indonesian arc. Geological Survey of Japan, Tsukuba, Japan, 25 April.
- 1996: Hephaisstos messengers: volatiles and volcanic processes. USGS workshop of Volcano Hazards group, Vancouver WA, 14 May.
- 1996, Where Hades meets Apollo. Chapman conference introduction speech, Crater lake, OR, 4-9 Sept.
- 1997, Global weathering budgets. Univ. Rhode Island, 7 October.
- 1998, Crater lakes. American Museum of Natural History, NY, February
- 1998, Crater lakes. Earth & Env. Sciences, Univ. of Rochester, NY, March
- 1998, Crater lakes, Earth Sciences, SUNY, Stony Brook, 22 October
- 1999, Sea Level Rise, GISS/ Columbia University LDEO, 9 April
- 1999, Rates of relative sea level rise along Long Island Sound, GSA NE meeting, Providence, March 22
- 1999, Relative sea level rise along the NE USA seaboard, AGU spring meeting, Boston, May 7
- 1999, Looking for life in all the wrong places - acid crater lakes harboring life? Univ. Connecticut, Dept. of Marine Sciences, 29 September
- 1999, The environmental record of coastal salt marshes - MENSA meeting, 16 October
- 1999, Coastal salt marshes as environmental archives. Universita de Comahue, Neuquen, Argentina
- 2000, Fault motions along the eastern border fault, Hartford Basin, CT over the last 2800 years. AGU spring meeting, Washington DC.
- 2000, Mercury in sediments from Long Island Sound. AGU spring meeting, Washington DC.
- 2000, Acid fluids IAVCEI meeting, Bali, July 2000.

- 2000, Salt marsh sequences as environmental archives: sea level, contamination and land movements. University of Delaware, 14 September
- 2000, Salt marsh sequences as environmental archives: sea level, contamination and land movements. New York State University of Stony Brook, 6 October
- 2000, Environmental change in Long Island Sound over the last 35 years. GSA meeting, Reno NV
- 2001, The State of the Sound, EPA/ Save the Sound meeting, NY Botanical Garden, NY, March 2001
- 2001, Shallow magmatic degassing into the hydrothermal system of Copahue, Argentina, AGU spring meeting, Boston, May
- 2001, Environmental Change in Long Island Sound: climate change and eutrophication. Second Long Island Sound Lobster Health Symposium, November 29-30 2001, Ronkonkoma, NY.
- 2002, The historical record of water quality in LIS. Long Island Sound workshop, Batelle laboratories, March 6-7, Groton CT
- 2002, Crater lakes as windows in magma chambers, Azores Second International Conference on the Volcanology of Pico Island, Azores. 18 April
- 2002, Volatile element fluxes at Copahue Volcano, Argentina. AGU spring meeting, May 28, Washington DC.
- 2002, Degassing at an active hydrothermal system, Copahue, Argentina. Goldschmidt conference, 26 August, Davos, Switzerland
- 2002, Lake contamination: models for evolution towards steady state. Conference on Residence Times in Lakes, Bolsena, Italy, 28 September
- 2003. Crater lakes: coloured windows in arc volcanoes. Duke University, Durham NC, 21 February
- 2003. Paleoenvironmental history of Long Island Sound. SMAST, University of Massachusetts, New Bedford MA, March 26
- 2003, Once Spilled – Still Found – metal pollution in sediments from Long Island Sound and its coastal wetlands. Connecticut College, Groton CT, Conference on “Our Changing Coast”, March 29
- 2004, Long Island Sound and the rising tides. Mystic village lecturer in Environmental studies, Stamford, September
- 2004, Nitrogen fluxes in Long Island Sound. EPA citizens committee, Stamford CT, November
- 2005, Project Oceanology – keynote speaker at the annual SENEMA meeting, Avery Point CT – *Human impacts on Long island Sound*, October 15
- 2005, Speaker at the NSTA regional meeting, Hartford, CT, *Mercury pollution*, October 20
- 2005, AGU-featured speaker (with Ellen Thomas) at the NSTA regional meeting, Hartford CT ‘*LIS environmental history*’, October 21
- 2005, Mercury pollution in Connecticut: from mad hatters to environmental policies. Public Science lecture, Wesleyan University, September 29
- 2006, *Crater lakes, coloured windows into arc volcanoes* – Department of Geology, Cornell University, Ithaca, NY, February 8

- 2006, Opening speaker (*The Salt of the Earth*) at a retirement Symposium of Prof. M. Kusakabe, Misasa, Japan, February 29
- 2006, Keynote speaker (with Ellen Thomas) at the CT Climate Summit (*Global climate change and its impacts on Long Island Sound*), organized by CFE-Save the Sound, Bridgeport, CT, April 8
- 2006, Keynote speaker at the New England Science Centers collaborative, *Global Climate Change*, Maritime Aquarium, Norwalk, April 24
- 2006, *The history of Long Island Sound: From Native Americans, European Colonist To Modern Day LIS*, Department of Environmental Studies, Southern CT State University, New Haven, CT, April 26
- 2006, Keynote speaker, Northeastern Association of Wastewater Treatment Plant Operators, Environmental History of Long Island Sound, annual meeting, Mystic, CT, June 5
- 2006, Climate change – talk for church leaders, June 24 Mercie Center, Madison CT
- 2006, Acid fluids from Copahue volcano. Keynote address at 7<sup>th</sup> international meeting of ISEG, Beijing, China, September 18.
- 2006, Climate Change and Long Island Sound, Annual Global Change Symposium, Manchester Community College, October 19, Manchester CT
- 2006, LIS Environmental History, ISIS program, Southern Connecticut State University, November 20. New Haven CT.
- 2006, Where beavers meet climate change – CSS, Wesleyan University, November 29
- 2007, Dutch colonial history and climate change. Hartford Rotary Club, January 29,
- 2007, Water riddles – Audubon CT, Glastonbury, February 7, 2007
- 2007, Volatiles at El Chichon: ashes, fumaroles and crater lakes – El Chichon 25<sup>th</sup> Anniversary meeting, March 22, San Cristobal, Mexico.
- 2007, Crater lakes and natural acid fluids, Central Michigan State University, Mount Pleasant, MI, April 20 .
- 2007, Paleoenvironments of LIS – where beavers meet climate change – UConn, Avery Point, CT May 11
- 2007, Human impact on Long Island Sound. Environmental Sciences Rutgers University, Newark, N.J., October 5.
- 2007, Copahue/Caviahue volcano and its backarc basalts, N-Patagonia, Argentina – scale of mantle contamination with subduction fluids. AMNH, NYC, NY, October 23.
- 2008, Paleoenvironmental studies of Long Island Sound. Univ of South Carolina, Columbia, SC. February, 2008.
- 2008, Paleoenvironmental studies of Long Island Sound. Marine Biology Laboratories, Woods Hole, MA, February 26
- 2008, Measuring and modeling climate change. Conference on climate change, Univ of Hartford, March 30
- 2008, Adriaen Block and the history of Long Island Sound. New York Map Society meeting, NY Public Library, April 13
- 2008, Measuring and modeling climate change, Schuman Symposium ‘where on earth are we going’? April 26, Wesleyan University
- 2008, Sea level rise in Long Island Sound, Madison CT, May 16.

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2008, The early history of Long Island Sound, the 'American Black Sea'. June 6,  
AMQUA meeting, PennState University

2008, Crater lakes – coloured windows into volcanoes. Western Connecticut State  
University, October 23

2009, CAES, May 12 2009

2009, Hudson days, November 11, 2009

### **Teaching Record:**

Mineralogy + lab. (1983-2007)  
Petrology + lab. (1983)  
Earth in Space (co-taught with Bill Herbst, AST, 1986,1988)  
Environmental Geochemistry (1983-2002)  
Isotope Geochemistry (1987, 1992)  
Energy, Mineral and Water Resources (1983-1992)  
Environmental Issues (1985)  
Intro to Global Change (1990)  
Global Change (1994)  
Geochemical Techniques (1991, 1996)  
Volcanology (1996, 2004, 2008)  
Earth System Science (1997, 1998)  
Introduction to Environmental Science (1998, 2001, 2002, 2006, 2007)  
CO<sub>2</sub> (FYI course, 2000)  
Climate Change, and the role of CO<sub>2</sub> (2002, 2008)  
Senior Seminar (with Phil Resor) 2006/2007  
Intro to Volcanology – 2007

### **Tutorial, research and senior thesis undergraduate students, 1991-2002:**

1991-1992 Heather Schwartz (Amherst College, NECUSE project student)  
Stephen Scholand (thesis research, University major, High Honors)  
1992-1993 Erica Gasper, Colleen Sanders, Allison Bidwell, John Pasch (marsh studies)  
Joy Roth (research tutorial), Koren Nydick (thesis research, Dept. Honors)  
Gregory Pasternack (thesis research, Dept. High Honors, University Honors)  
1993-1994 John Crockett, Leslie Katz, Mark Sughrue, Sarah Cassell, Sarah Yuhas  
(summer research), Shelby Walker, Joseph Stein (research tutorials)  
Allison Bidwell (thesis research, Dept. High Honors, University Honors)  
Rita Setser (thesis research), Jany Jacobs (thesis research)  
1994-1995 Sarah Yuhas, Leslie Katz, Mark Sughrue (independent research)  
1995-1996 John Crockett, Heather Saffert (thesis research), Oliver Stockhammer,  
Courtney Dowrick (independent research)  
1996-1997 Bart Kreulen, Gari Mayberri, Bill Thompson, Scott Herman (ind. research),  
1997-1998 Kiran Haithcock (summer research), Claire Hruby (BA thesis, volcanology),  
Scott Herman (BA thesis, hydrogeochemistry), Bill Thompson (BA/MA  
thesis, marsh development), Bart Kreulen (MA thesis, Hg pollution), Eric  
Haskins (research student, volcanology), Julia Lynton (research student, Hg  
pollution), Alex Handler (research student, marsh development), Stephany  
Kuhn (Wittier College, summer research student), Polina Rabinowich  
(summer research student), Kathy Meigs (research student, ion  
chromatography); Andy Ouimette (mineralogy), Joshua Koch and Jaime  
Naugele (both Hg geochemistry)  
1999-2000 Kathy Meigs (thesis student), Joshua Koch (Hg geochemistry, Ca/Sr studies),

- Brynn Bemis (metal pollution), Scott Herman (Hg pollution), Bill Thompson (marsh studies), Bart Kreulen (Hg studies), Andy Ouimette (Argentine river), Eli Fierer (Hg studies), Kate Lauriat (Hg pollution), Adam Goss (petrology), Janna Shackerof, Ryan Huggins, Irina Abramson, Polina Rabinovich (LIS).
- 2000-2001 Adam Goss, Gabe Landes (Copahue volcano), Kate Lauriat (Hg pollution)
- 2001-2002 Adam Goss, Gabe Landes (Copahue volcano), Beth Goldoff, Dan Clark (Hg pollution), Jill Johnson, Amanda Long (Long Island Sound studies)
- 2002-2003 Matt Merrill, Maarten deMoor (petrology, Argentina), Kathryn Flynn, Rebecca Milburn (hydrothermal fluids, Argentina), Intan Nurhati, Joe Welsh (Biogenic Silica studies, LIS), Patrick Welsh and Billo Jallow (Hg studies)
- 2003-2004 Evan Browne, Maya Groner (volcanic lakes, LIS), Nathan Andersen, Anna Colvin (Biogenic Silica in LIS), Patrick Welsh, Rachel Bronsther (Hg in CT), Amy Gomberg (Composition of rivers in Chili), Jessica Pfund (Composition of the Pequabuck River in CT)
- 2004 Nathan Andersen, Elisabeth Cuckor (LIS), Sarah Weigle (Argentina),
- 2005 Chris Carmageon, Ion chromatography analyses, Craig Thomas, LIS water analyses, Nathan Boon – gamma ray spectroscopy
- 2006 Rachel Bleshman (Hg analyses), Marie Brophy (water analyses Argentina), Emily Doyle (water analyses Copahue volcano), Asia Neupane (Hg analyses of plants, hair), Marc Mckay (water analyses Domuyo volcano, Argentina)
- 2007 Asia Neupane, Hg research on plants, Nathan Boon – waste water fluids in LIS, Astrid Hesse – Cinder cones in Patagonia, Tom Wohlford – Arc volcanism in Greece. Marie Brophy – acid rivers from Copahue
- 2008 James Rea - Callaqui volcano in Chile; Jim Zareski – cinder cones in Patagonia; Tristan Kading – Hg and As in Copahue fluids, Asia Neupane, - Mercury on Tobago Island, Rachel Neurath (Smith College) - Mercury on Block island, Conor Veeneman - Sea level rise in Block Island Sound.

## Thesis Advising

### BA theses

1. **McCready\*, D. J.**, 1984, Low temperature geochemistry of estuarine sediments. p. 93. (Varekamp), Honors, (environmental policy analyst, Washington, DC).
2. **Brooks, J. T.**, 1985, Distribution and chemistry of heavy metals in sediments from the Connecticut River estuary. p. 104. (Varekamp), Honors (MD, Harvard Medical School, MA).
3. **Limburg\*, E. M.**, 1986, Young pyroclastics on Nisyros, Greece: Physical studies. P. 119 (Varekamp), Honors (MS volcanology, New Mexico Tech., Socorro, NM, self employed artist).
4. **Wyman\*, S.L.**, 1986, The petrology of pumices from Nisyros Island, Greece. p. 120, (Varekamp) credit, (Env. Consultant, Washington State).
5. **Gee\*, A. K.**, 1986, Heavy metals in the Connecticut River estuary: analysis and questions of approach. p. 181 (Varekamp), Honors, (PhD candidate, in geochemistry, UC Santa Cruz, CA.).
6. **Hardigg, N.**, 1990, Connecticut precipitation chemistry; 1989-1990, p.93. (Varekamp) Honors (MBA, Yale Univ., Manager Grand Canyon National Park, AZ).
7. **Gansecki\*, C. A.**, 1991, Petrology of the domes and inclusions of Nisyros Volcano, Greece. P. 97 (Gutmann and Varekamp), High Honors (PhD, volcanology, Stanford University, CA., Research scientist and volcano moviemaker, Univ. Hawaii, Hilo)
8. **Scholand, S. J.**, 1992, Salt marsh geochemical records and paleoenvironmental change. p. 160 (Varekamp). High Honors (MD, George Washington University, DC, now MD in Connecticut).
9. **Pasternack, G. B.**, 1993, Acid brine crater lake systematics: a case study. p. 159 (Varekamp), High Honors, University Honors (MS UC Berkeley, PhD, Johns Hopkins, Hydrology, Full Professor Land Air Water Sciences, UC Davis, CA.
10. **Nydick\*, K. R.**, 1993, Guilford salt marsh evolution and relative sea level rise. p. 141, (Varekamp and Thomas), High Honors (PhD Colorado State University, Post doc at Utah State University, freshwater ecology, now Director of Research, Mountain Studies Institute, Colorado).
11. **Bidwell\*, A. B.**, 1994, The evolution of the Dennis creek salt marsh under the influence of rising relative sea level. p. 143 (Varekamp and Thomas), High Honors, University Honors (PhD Envir. Studies, Stanford University, CA, 2005, now in DC).
12. **Jacob\*, J.**, 1995, Barn Island salt marsh evolution and relative sea level rise. p. 172. (Varekamp and Thomas) credit (self employed).
13. **Crockett, J. S.**, 1996, Mercury in Connecticut marshes. p.86. (Varekamp) Honors (PhD geochemistry, 2006, University of Washington, Seattle, WA).
14. **Setser\*, L.** 1997, Petrology of ignimbrites near Liberia, Costa Rica. P. 96, credit (MS student, Geography, Univ. of Texas in Austin).
15. **Herman, S.W.**, 1998, The Hydrogeochemistry of Copahue Volcano, Argentina. p.94 (Varekamp) - High Honors (ODP technician, MA Structural Geology UC Santa Barbara, CA).

16. **Hruby\*, C.E.**, 1998, Magma Genesis at Nisyros and Santorini Volcanoes, Aegean Arc, Greece. p.106 (de Boer + Varekamp), Honors (MA hydrology, Univ. of Iowa)
17. **Meigs\*, K. W.**, 1999, A comparative case study of the historical record of trace metal contamination in Connecticut salt marshes. p.143 (Varekamp), Honors (Env. Consultant).
18. **Goss, A.R.**, 2001, Magmatic Evolution of Volcán Copahue, Neuquen, Argentina. p.209. (Varekamp), High Honors, University Honors (PhD Volcanology/Petrology, Cornell University, Ithaca NY, 2007; postdoctoral fellow, Univ of Florida).
19. **Lauriat\*, K. A.**, 2001, Mercury contamination in the Housatonic river Basin: the Danbury hatting heritage. p. 153. (Varekamp), Honors (Env. Consultant-2006, Boston University, MA studies in dietary science)
20. **Goldoff\*, B.**, 2002, The Danbury hatting industry: a source of Mercury for the Still River Basin and Long Island Sound. (Varekamp), Honors, Research associate, American Museum of Natural History, NY.
21. **Flynn\*, K.**, 2003, The effect of the 2000 eruption on the composition of the Volcan Copahue hydrothermal system p. 77. (Varekamp), Honors. (USGS, Menlo Park, CA, PhD candidate, UC Davis, ore geochemistry)
22. **Merrill, M.**, 2003, Petrogenesis of the Caviahue caldera: Neuquen, Argentina. p. 165. (Varekamp) Honors (MA student, Wesleyan University), USGS, Reston VI.
23. **DeMoor, M.**, 2003, The magmatic evolution of Caviahue caldera volcanic rocks: Implications for subduction processes and caldera formation. p. 205. (Varekamp), High Honors (MA volcanology, Univ. New Mexico, 2006), Ore industry geologist, PhD candidate.
24. **Bronsther\*, R.** 2004, Mercury contamination in western Connecticut: how much is dangerous? Honors in General Studies. Medical School
25. **Colvin\*, A.**, 2004, The Riscos Bayos ignimbrites, Caviahue, Argentina. Honors. USGS, Reston, VI, MA, MTU, Volcanology+ remote sensing, GeoGlobal Geothermal Consulting.
26. **Groner\*, M.**, 2004, The carbon cycle in Long Island Sound: radiocarbon studies of carbonates. Credit. Univ of Pittsburgh, PhD candidate Ecology
27. **Andersen, N.**, 2005, The eutrophication history of Long Island Sound. High Honors. Envir. Consultant
28. **Rea, James**, 2009, Callaqui volcano, Chile (ongoing).
29. **Veeneman, Connor**, 2009, Formation of Block island, RI (ongoing, co-advised by Ellen Thomas)
30. **Kravet, Emma**, 2009, Sea level rise on Block island, the last 300 years (Ellen Thomas main advisor) - ongoing

#### **Masters Theses**

1. **Lodise\*, L.**, 1987, Petrology of Nisyros volcano, Greece, p. 367 (Varekamp)
2. **Manoukian\*, N.**, 1995, How coastal marshes grow: accretion rate analyses and numerical simulations. p. 186 (Varekamp & Thomas), Envir. Consultant, UK.

3. **Kreulen, B.**, 1999, Mercury pollution in and around Long Island Sound. p.176. (Varekamp), research scientist in industry, The Netherlands.
4. **Thompson, W. G.**, 1999, Sea level, climate, and land level: paleo environmental records from the Farm River marsh, Branford, CT. p. 276. (Varekamp + Thomas), PhD paleoceanography/geochemistry, Columbia University, NY, now a staff scientist at Woods Hole Oceanographic Institution, Woods Hole MA.
5. **Ouimette, A. P.**, 2000, Hydrothermal processes at an active volcano, Copahue, Argentina. p. 220. (Varekamp), research scientist, Volcano hazards program, USGS, Menlo Park, CA., now a research scientist at Univ. of New Hampshire, NH.
6. **Zierzow\*, T.**, 2002, Metal contamination in sediments from the Housatonic River watershed, CT. p. 262 (Varekamp), Environmental consultant, MA.
7. **Lugolobi, F.** 2003, Water quality trends in Long Island Sound over the last 400 years: isotope studies on carbonates (Varekamp + Thomas) p. 273, PhD, geochemistry, Boston University, now assistant professor, Trinity College, CT
8. **Gately, C.**, 2004, Volcanic fluids at Peteroa volcano, Argentina/Chile, p.198 (Varekamp). Ph D candidate, sustainable energy development
9. **Hesse\*, A.** (2006-2007) Petrology of backarc volcanics, Patagonia, Argentina. p 234. Envir. Consultant.
10. **Boon, Nathan**, (2006- 2008), Nutrient dynamics in Long Island Sound. p.345. Runs an NGO in Cameroon, Africa.
11. **Zareski, Jim** (2007 - ) Backarc volcanoes of Patagonia, Argentina (ongoing)
12. **Kading, Tristan** (2008- ) Hg and As in volcanic fluids (ongoing).
13. **Wohlford, Tom** (2004-) A volcanic cross-section through northern Greece (ongoing).
14. **Neupane\*, Asia**, (2008- ) Mercury on Tobago island (ongoing).

\* female student

#### **Outside Thesis reviewer / committee member**

- Vroon, Pieter**, 1993, Geochemistry of Banda arc volcanism, PhD, Utrecht University, The Netherlands
- Sriwana, Terry**, 1998, Volcanism on Flores, Indonesia, PhD, Utrecht University, The Netherlands
- Bagnato, Enmanuela**, 2008, Mercury from volcanic sources, PhD, University of Palermo, Italy
- Colvin, Anna**, 2008, Santa Ana crater lake, El Salvador, MS, Michigan Technological University, Houghton, USA
- Martinez, Maria**, 2008, Geochemical evolution of Poas crater lake, Costa Rica. PhD, Utrecht University, The Netherlands
- Simmings, Juliet**, 2009(?), Oyster beds in Long Island Sound. PhD, Stony Brook University, NY, USA
- Neurath, Rachel**, 2009, Mercury on Block Island, BA, Smith College, MA

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**Scheick, Jessica**, 2009, Landscape evolution of Block Island – stable isotope studies of lake deposits, BA, Brywn Mayr College, Philadelphia, PA

**Bartolai, Jessica**, 2009, Paleo environmental study of Block Island Great Salt Pond – stable isotope studies. BA, Macalester College, Minneapolis, MN