

January 2008

CURRICULUM VITAE
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PRESENT POSITION

Senior Research Fellow and Margulis Lab, Administrator UNIVERSITY OF MASSACHUSETTS, Department of Geosciences

EDUCATION

UNIVERSITY OF MASSACHUSETTS, Department of Geosciences – Ph.D. in Geology, in progress Dissertation topic: Formation, distribution, and composition of freshwater ferromanganese sedimentary structures from the Connecticut Lakes, New Hampshire, USA.

UNIVERSITY OF MASSACHUSETTS – MSc. in Geology, 2004
Masters thesis: Sedimentology of the last glacial cycle: El'gygytgyn Crater Lake, northeastern Russia.

SMITH COLLEGE, Department of Geological Sciences – B.A. Geology, minor Archeology, 1998.
Senior study: Ground water, hydrology, and water Chemistry in Hawley Massachusetts.

INDIANA UNIVERSITY, Department of Geosciences – Geology field course, summer 1997.

MONTGOMERY COLLEGE, Rockville, Maryland – Liberal Arts distribution, 1991-1995.

WEBSTER UNIVERSITY, St. Louis, Missouri – Theatre Arts Major, 1975-1977.

HONORS

UNIVERSITY OF MASSACHUSETTS:
Outstanding Teaching Assistant Award 1999
Gloria Radke Memorial Award 2006

SMITH COLLEGE:
First Group Scholar Honors, 1998.
Sigma Xi Membership 1998.
Dean list, 1997-1998, 1996-1997.
Schultz Foundation Scholarship for fieldwork, 1996 and 1997.

MONTGOMERY COLLEGE:
Dean list, 1993-1995.

*Formerly Celeste J. Cosby

EMPLOYMENT HISTORY

- 1995-1998. Workstudy employee, Department of Geosciences, SMITH COLLEGE.
1998-2001. Graduate employee, Department of Geosciences, UNIVERSITY OF MASSACHUSETTS.
2001-present. Senior Research Fellow and Margulis Lab, Administrator, Department of Geosciences, UNIVERSITY OF MASSACHUSETTS

RESEARCH INTERESTS

Formation, distribution, and composition of freshwater ferromanganese sedimentary structures from the Connecticut Lakes, New Hampshire, USA.

The focus of my research is to establish a link between the sedimentological, chemical, geological and limnological processes that support occurrences of ferromanganese nodules that we discovered in the Connecticut Lakes system in New Hampshire. The results of this work could be applied to other freshwater lake systems to predict occurrences of nodule structures.

Sedimentary limnology, aqueous geochemistry, hydrology, diagenesis of sediments and clay mineralogy

GRANTS & AWARDS

2007: Massachusetts Consortium Space Grant Fellowship, NASA, Active accretion of ferromanganese nodules: Complex microbial ecosystem in freshwater lakes.

2007 The Gloria Radke Memorial Prize for research, Department of Geosciences, University of Massachusetts.

2006: Massachusetts Consortium Space Grant Fellowship, NASA, Ferromanganese nodules from Second Connecticut Lake New Hampshire: A model for extra planetary biomarkers.

2004 Grant in Aid of Research, Sigma Xi Scientific Research Society.

2001 Kenneth N. Weaver Student Travel Award, Northeastern section of the Geological Society of America.

2001 Geological Society Grant for research.

2001 Graduate School Scholarship.

2000 Geological Society of America Scholarship for Research.

PUBLICATIONS (peer reviewed)

Asikainen C.A. and Werle, S. 2007. Accretion of ferromanganese nodules that form pavement in Second Connecticut Lake, New Hampshire. *Proceeding of the National Academy of Sciences*. 104:17579-17581.

Asikainen C. A., Francus P. and Brigham-Grette J. 2007. Sedimentology, clay mineralogy and grain-size as indicators of 65 ka of climate change from El'gygytgyn Crater Lake, Northeastern Siberia. *Journal of Paleolimnology*. 37:105-122.

Francus P. and Asikainen C. A. 2001. Sub-sampling unconsolidated sediments: a solution for the preparation of undisturbed thin-sections from clay-rich sediments. *Journal of Paleolimnology*. 26:323-326.

BOOKS in Preparation

Margulis, L., **Asikainen, C. A.** and Krumbein, W. E., eds. (in preparation). *Chimeras and Consciousness: Evolution of the sensory self.* Chelsea Green Publishing Company, White River Junction, VT.

PUBLISHED ABSTRACTS

Asikainen, C. A. (2006), Living Rocks in Connecticut River Headwaters: Ferromanganese Stromatolites, *Eos Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract B13B-1067.

Asikainen, C.A., Francus, P., Brigham-Grette, J., 2006, Sediment fabric, clay mineralogy, and grain-size as indicators of climate change since 65 ka at El'gygytyn Crater Lake, Northeast Siberia, *J. of Paleolimnology*, 31 pages, 7 figures.

Melles, M., Anderson, P. M., Apfelbaum, M., **Asikainen, C.**, Brigham-Grette, J. Cherepanova, M., Kopsch, C., Forman, S., Juschus, O., Lozhkin, A. V., Minyuk, P., Niessen, F., Nowaczyk, N. R. Snyder, J. 2004. Sedimentation in Lake El'gygytyn, Northeastern Siberia, During the Past Three Climate Cycles. American Geophysical Union

Asikainen, C., Brigham-Grette, J. and Francus, P. 2002. Sedimentological investigations of the paleoclimate record from core PG1351, Elgygytyn Lake, NE Russia, EOS, Transactions, American Geophysical Union vol.82 (47) p. F754.

Apfelbaum, M. A., Brigham-Grette, J., **Asikainen, C.** 2002. Sedimentological Evidence For The Last Interglacial (Sensu Lato) From El'gygytyn Crater Lake. American Geophysical Union.

Asikainen, C. A., Brigham-Grette, J., Francus, P., Apfelbaum, M. 2002. Investigation into the relationship between climate change and sedimentary processes from core PG 1351 from El'gygytyn Crater Lake, Northeast Siberia. ARCSS All-Hands Workshop, Seattle, WA. The Arctic Research Consortium of the U.S. (ARCUS), Fairbanks, AK.

Asikainen, C. A., Brigham-Grette, J. 2001. Sedimentological Studies of the Paleoclimate record from core PG1351, El'gygytyn Crater Lake, NE Russia. Artic Workshop, University of Massachusetts.

Asikainen, C., Brigham-Grette, J., Francus, P. 2001, Sedimentological Studies of the Paleoclimate record from core PG1351, El'gygytyn Lake, NE Russia, Geological Society of America National meeting, Abstracts and Programs, p. A253. Boston, MA.

El'gygytyn Crater Lake in NE Siberia: Deep Sediment Fill Promises 3.6 million year Arctic Paleoclimate Record. Arctic Forum 2001. The Arctic Research Consortium of the U.S. (ARCUS), Fairbanks, AK. 2002. 84 pp.

Asikainen, C. A., Brigham-Grette, J. and Francus, P. 2001, Investigation into the relationship between Climate Change and Sedimentary Processes from Core PG 1351 from El'gygytyn Crater Lake, NE Siberia, Abstract and Program ICDP Elgygytyn Workshop, Amherst, Nov. 10-12, p. 24, http://www.geo.umass.edu/lake_e/index.html.

Brigham-Grette, J., Nowaczyk, N., **Asikainen, C. A.** and Forman, S. 2001, 3An Appropriate Age Model for Sediment Cores from El'gygytyn Lake? Abstract and Program ICDP Elgygytyn Workshop, Amherst, Nov. 10-12, p. 26, http://www.geo.umass.edu/lake_e/index.html.

Apfelbaum, M., **Asikainen, C. A.**, Brigham-Grette, J. 2001. A 150,000 year sedimentological record from El'gygytyn Crater Lake using the 1998 pilot core, Abstract and Program ICDP Elgygytyn Workshop, Amherst, Nov. 10-12, p.23. http://www.geo.umass.edu/lake_e/index.html.

Brigham-Grette, J., **Asikainen, C. A.**, Apfelbaum, M. G. and Nolan, M. 2001. The Lake El'gygytgyn sediment core – a 300ka climate record of the terrestrial Arctic, EOS, Transactions, American Geophysical Union v.82 (47) p. F752.

Asikainen, C. A., Brigham-Grette, J. and Francus, P. 2001. Investigation into the relationship between Climate Change and Sedimentary Processes from Core PG 1351 from El'gygytgyn Crater Lake, NE Siberia, Abstract and Program ICDP Elgygytgyn Workshop, Amherst, Nov. 10-12, p. 24, http://www.geo.umass.edu/lake_e/index.html.

Brigham-Grette, J., Nowaczyk, N., **Asikainen, C. A.** and Forman, S. 2001. An Appropriate Age Model for Sediment Cores from El'gygytgyn Lake? Abstract and Program ICDP Elgygytgyn Workshop, Amherst, Nov. 10-12, p. 26, http://www.geo.umass.edu/lake_e/index.html.

Apfelbaum, M., **Asikainen, C. A.**, Brigham-Grette, J. 2001. A 150,000 year sedimentological record from El'gygytgyn Crater Lake using the 1998 pilot core, Abstract and Program ICDP Elgygytgyn Workshop, Amherst, Nov. 10-12, p.23. http://www.geo.umass.edu/lake_e/index.html.

Cosby* (**Asikainen**), C., Brigham-Grette, J., Francus, P. 2000. THE IMPACT Project: Sedimentological Studies of the Paleoclimate Record from El'gygytgyn Crater Lake. American Geophysical Union, EOS Transactions, 80 (46), F485.

Brigham-Grette, J., Glushkova, O.; Minyuk P.; Melles M., Nowaczyk, N. R., Lozhkin, A.V., Anderson P, Cherepanov, a M.V., Cosby* (**Asikainen**), C, Layer P., Forman, S. L., 2000, Millennial-scale global events recorded In El'gygytgyn Crater Lake, Eastern Siberia Back To 400ka, 30th Annual Arctic Workshop, March, Boulder Colorado, Abstract volume. P. 2.

Brigham-Grette, J., Glushkova, O., Minyuk, P., Niessen, F., Wagner, B., Nolan, M., Kopsch, C., Cosby* (**Asikainen**), C., Smimov, A., Apfelbaum, M., Federov, G. 2000. THE IMPACT Project 2000: Terrestrial History of El'gygytgyn Crater Lake: an International Multidisciplinary PaleoClimate Project. American Geophysical Union, EOS Transactions, 81 (48).

Brigham-Grette, J., Glushkova, O. Y., Minyuk, P., Melles, M., Nowaczyk, N., Lozhkin, A. V., Anderson, P., Belya, B. V., Cherepanov, M. V., Cosby* (**Asikainen**), C., Layer, P., Forman, S. L. 1999. Paleoclimatic Record from El'gygytgyn Crater Lake, Eastern Siberia. American Geophysical Union.

Cosby* (**Asikainen**), C., Brigham-Grette, J. 1999. Sedimentological Evidence for Circumarctic Climatic Change from El'gygytgyn Lake, NE Russia. American Geophysical Union, EOS Transactions, 80 (46), F485.

RESEARCH EXPERIENCE

Characterization of the physical properties of sedimentary microstructures on the scanning electron microscope, petrographic microscope and elemental identification with energy dispersive spectrometer identification of clay minerals using X-ray diffraction, Coulter Counter particle size and size distribution analyzer, water and dissolution of sediments with inductively coupled plasma mass spectrometry.

FIELD WORK

2004 to Present Organized and executed, laboratory investigations and field diving expedition to Second Connecticut Lake, New Hampshire; responsible for the collection and analysis of sedimentological, geophysical, and time-series data; participant in multiple field expeditions. UNIVERSITY OF MASSACHUSETTS, Department of Geosciences, Amherst, MA.

- Summer 2000 Lake El'gygytgyn Crater, Northeast Siberia. July-Aug-Sept. Responsible for sedimentological analysis and topographic and hydrologic surveying of fluvial systems. UNIVERSITY OF MASSACHUSETTS, Department of Geosciences, Amherst, MA.
- Summer 1997 Geology field course, Tobacco Route Mountains, Montana, INDIANA UNIVERSITY, Bloomington, IN.
- Summer 1996 & 1997 Researched Hatfield Pluton for evidence of hydrothermal activity SMITH COLLEGE, Department of Geological Sciences, North Hampton, MA.
- Spring 1993 & 1994 Archeological investigation and research, St. Croix, U.S. Virgin Islands. Responsible for coordination of trip logistics and preservation of artifacts retrieved from dig. MONTGOMERY COLLEGE, Department of Archeology, Rockville, MD.

TEACHING EXPERIENCE

- 1997 to 2001 UNIVERSITY OF MASSACHUSETTS, Department of Geosciences, Amherst, MA – Teaching Assistant Three courses: Oceanography (Geo 103), Introductory Geology (Geo 131), Geo-writing (Geo 307), and Faculty Fellows coordinator for STEMTEC, developed and instructed laboratory and field curriculum.
- January 1996 CHICOPEE MIDDLE SCHOOL, Smith College teacher intern program, Chicopee, MA Collaborated in the development and implementation of an advanced middle school earth science class; responsibilities included: course planning, and leading discussions and lectures.

RELATED EXPERIENCE

Development and printing of abstract volume for international meeting held by the Department of Geosciences

Design and formatting of undergraduate and Science and Technology brochures for the Department of Geosciences

Designed and maintained web pages for the Department of Geosciences and STEMTEC, University of Massachusetts.

Proficient in Microsoft Word, Microsoft Excel, Microsoft Power Point, Graphing Software, Adobe Photo Shop, Adobe Illustrator, CorelDraw, Data Base programs, HTML, Global Positioning Systems, and PC computers. Familiar with Macintosh computers.