

Cathy L. Connor
CURRICULUM VITAE

Department of Natural Sciences
University of Alaska Southeast
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Married to Rodney Flynn, Research Biologist, Alaska Department of Fish and Game
Three children, Juneau-Douglas HS graduates (2002, 2004, 2008),
University California Santa Cruz grads (2006 & 2008) & Gonzaga University hopeful (2012?)

PROFESSIONAL EXPERIENCE

1998-2006, 2010 – present: Coordinator Environmental Science (B.S. degree) Program,
Department Natural Sciences, University of Alaska Southeast
2007 – present: Professor Geology, University of Alaska Southeast
2002 – 2007: Associate Professor, Department of Natural Sciences, University of Alaska Southeast
1995 – 2002: Assistant Professor, Department of Natural Sciences, University of Alaska Southeast
2002-present: Cooperating Faculty Department of Geology, University Alaska Fairbanks
1991-1995: Visiting Assistant Professor of Geology, University Alaska Southeast
1994-present: Summer faculty Juneau Icefield Research Program, Foundation for glacier and
Environmental Research, University Idaho, University Alaska Southeast
1977-1983: Physical Science Technician, GS Grade 9, Branch of Alaska Geology, Menlo Park, CA
and Anchorage, Alaska
1975-1983: Geology Instructor: University Pertanian Malaysia, University Montana, Missoula, MT:
Alaska Pacific University, Anchorage, AK.

EDUCATION

Ph.D. 1984, Geology, University of Montana, Missoula. MT.
Dissertation title: Late Quaternary Glaciolacustrine and Vegetational History of the Copper River
Basin, South Central Alaska
Advisors: Drs. Johnny N. Moore and Charles Miller

M.S. 1975, Geology, Stanford University, Stanford, CA.
Thesis title: Holocene Sedimentation History of Richardson Bay, California
Advisor: Dr. James C. Ingle

B. S. 1974, Geology, Stanford University, Stanford, CA.

POSTGRADUATE COURSES

2009 Mt. St. Helens NP, Vancouver WA Geological Society of America Field Courses
2009 AK FOP Quaternary & Periglacial Geology of the Fairbanks Area
2008 Cutting EDGE Workshop Teaching Geomorphology
2007 Cutting EDGE Workshop Teaching Climate Change in Earth Science Course
2006 Cutting EDGE Workshop Teaching Public policy in Earth Science Courses
2007 AGU-Transitioning into Administration, Conflict resolution
2008 AK FOP Quaternary Geology Northern Southeast AK
2007 AK FOP Quaternary geology Kenai Peninsula
2006 AK FOP Quaternary Geology Copper River Basin
2006 Assessment in Geology Denver GSA
2006 AGU Chapman Conference Neotectonic History South Central AK Girdwood, AK
2005 Olympic Peninsula, WA Geological Society of America Field Course

2004 Quaternary History Lake Lahontan NV Geological Society of America Field Course
2003-Using GIS in Geology UW
2003 Paleo-tsunami Evidence for 1700 Earthquake Seattle, WA
1996 Denali National Park Geology Geological Society of America Field Course
1984 Glacier Bay National Park Glacial Processes Geological Society of America Field Course
1984-2010 UAS Courses in Computer Skills, Environmental Law, GIS, Planetary Science, & Atmospheric Science.

AWARDS

Outstanding Faculty Award, University of Alaska Southeast, 2008
Sabbatical 2005-Carried out fieldwork for a rewriting project for a completely new edition of Roadside Geology of Alaska for Mountain Press, Missoula, MT. and taught several short K-12 geoscience workshops in the Mat-Su, Pribilof Islands, Healy School districts.

PROFESSIONAL SERVICE

Editorial Work

National Science Foundation

Ad hoc reviewer Geoscience Education Division 2008-2010
-NSF Review Panel, International Polar Year-Geoscience Education 2007

Journal Reviewer 2002-present

-Geology-British Geo Society
-Geomorphology-Elsevier Press
-Journal of Geoscience Education-National Association of Geology Teachers

Meeting, Workshop, and Symposium Organization

2010-Alaska Space Grant Consortium earth and Space Forum UAS Juneau May 6-7
2009-GSA Symposium Portland Geoinformatics/Glacier Monitoring
2008-AGU Oral and Poster Session Education
2003 National Association of Geology Teachers-Pacific Northwest Division
Hosted annual conference June, with preconference workshop: Tatshenshini River
Alaska State Councilor 2002-present

CURRENT GRANT SUPPORT

National Aeronautic and Space Administration- Alaska Space Grant \$8,000
National Atmospheric and Oceanic Administration-ISETCSC ends AUG 2010 \$279,576
National Department of Defense through JEDS/Springboard Program Annual
National Park Service-CESU Program Ends Dec 2010 \$34,957
National Science Foundation, EPSCoR ends June 2010 \$18,000

PENDING GRANT SUPPORT

NASA-CLIMATE Change JIRP-submitted 4/2010
NSF-Robert NOYCE-Science Majors to Teacher Training Programs (will submit in the fall, prepared in spring 2010)

PREVIOUS GRANT SUPPORT

NASA-SEAMONSTER \$900,000
NASA-Space Grant \$60,000
NOAA-Core \$2500
NSF-EDGE \$285,000
UA Resources Funds \$25,000
UAS-Chancellor's Awards \$15,000
Cruise Ship Funds \$3,000

TEACHING**University of Alaska Southeast Courses Taught 1991-present****Lower Division**

Introduction to Physical geology, Historical Geology, Environmental Geology, Environmental Science, Geographical Information Systems, Earth Materials

Upper Division

Geomorphology, Geology of Alaska, Glaciation and Climate Change, Glacier Field Surveying, Environmental Science Seminar, Directed Studies and Independent Research Studies, Internships

Field Courses

Alaska Cell Friends of the Pleistocene, various Alaska locations 2006-2010. Juneau Icefield, Leconte Glacier, Glacier Bay NP, Auke Lake.

Alaska Pacific University- 1982

Graduate level course in the Geology of Alaska

University Montana 1998-1984

Lab instructor for courses in-Introductory Physical Geology, Mineralogy, and Paleontology

University Pertanian Malaysia 1975-1977

Instructor-Introductory Physical Geography, Introductory Oceanography, Field Geology of NW Peninsular Malaysia

Faculty Mentor--Undergraduate Students, HS Science teachers and 1996-present**Current**

Mendenhall Lake Bathymetry-Geomorphology (with Roman Motyka-UAF)

Nick Korzen, David Sauer, Ivy Smith, Nat Kugler

Lemon Creek & Taku Glaciers Mass balance and Geomorphology (with Juneau Icefield Research Program faculty)

Ariel Lyon

Graduated

2007-2009 Auke Lake Bathymetry & Tlingit Archeology (with Dan Monteith)

Edwin Knuth, Lacey Smith

2004-2008 Gastineau Channel Formation-Glacier Uplift & Sub-fossils 2004-2008 (with Carol Thilenius)

Daniel Bleidorn, Jess Parks, Rhys Smoker

2005-2008 NSF-Sponsored Secondary Training EDGE-(with Anupma Prakash UAF)

www.edge.alaska.edu

35 Alaska middle School and High School Science teachers

42 Alaska Middle School and High School students

2003-2006 Glacier Bay National Park-Neoglacial History-(with Daniel Montieth UAS)

Daniel Lesh, Matthew Brock, Moana Leirer, Adrianna Rodriguez

1998-2009 Mendenhall Lake Bathymetry----Glacier Mass Balance (with Roman Motyka)

Logan Berner, Johnse Ostman, Rebecca Marjerisen, Michelle Akers, Luke Tabor, Trey Figueroa, Terry Schwarz, Shannon Seifert

1996-2000 LeConte Glacier Calving Retreat (-with Roman Motyka-UAF)

Shannon Seifert, April Graves, Kari Mattocks , Rebecca Viray, Matt Hansen, Ben White, Autumn Lowrey

1996-2009 Lemon Creek and Taku Glaciers Mass Balance (with Heavner, Hood, & JIRP faculty)

April Graves, Julian Deiss, Terry Schwarz, Liam Cover, Mathew Nelson, Kyla Burrill, Chris McNeil

REFEREED PUBLICATIONS**Book Chapters**

Connor, C.L., 2009, *Field Glaciology and earth systems science: The Juneau Icefield Research Program (JIRP), 1946-2008. Chapter In: Field Geology Education: Historical Perspectives and Modern Approaches, Geological Society of America Special Paper 461, p. 173-184*

Journal Articles

Connor, C.L., Prakash, A, and Levine, R., (in prep 2010), Determining the value of Geographical Information System (GIS)-based Earth Science courses to secondary science education: Alaska's EDGE Program. Will submit to journal like: *Assessment in Education: Principles, Policy, and Practice*. Routledge Pubs. UK. (Made Progress May 2010 on this... securing student longitudinal tracking/assessment data is delaying completion)

Heavner, M.J., Fatland, D.R., Hood, E., and **Connor, C.**, (in press 2010), Sensor Webs in Virtual Globes: Computers and Geosciences. [arXiv:0906.2611v2](https://arxiv.org/abs/0906.2611v2) [physics.geo-ph]

Korzen, N*, **Connor, C**, Hood, E, and Nagorski, S, (2010), Sediment Flux and Changing Lake Bathymetry in the Pro-glacial Mendenhall Lake/River System. Expanded Abstract for the American Water Resources Association Specialty Conference, Anchorage, May 2-4, 2009.

Heavner M, Fatland D, Hood E, **Connor C**, Hansen T, Schultz M, LeFavre T, Esterline A, (2009) Sensor Webs in Digital Earth: Monitoring Climate Change Impacts, Proceedings of 3rd National Conference on Environmental Science and Technology.

Connor, C.L., Streveler, G.P., Post, A, Monteith, D., and Howell, W., 2009, The Neoglacial landscape and human history of Glacier Bay, Glacier Bay National Park and Preserve, southeast Alaska, USA: *The Holocene*, 19, 3, 99. 375-387.

Connor, C.L. and Prakash, A., 2008, Experiential Discoveries in Geoscience Education: The EDGE program in Alaska: *Journal of Geoscience Education*, Vol 56, No 2, and P 179-186

Monteith, D., **C. Connor**, G. Streveler, and W. Howell., 2007,.Geology and oral history: complementary views of a former Glacier Bay landscape. in J. F. Piatt and S. M. Gende, editors. Proceedings of the Fourth Glacier Bay Science Symposium, 2004. U.S. Geological Survey, Information and Technology Report USGS/BRD/ITR-2007-5047, Washington, D.C
<http://pubs.usgs.gov/sir/2007/5047/>

Motyka, R., Echelmeyer, K. Hunter, L. and **Connor C.**, 2003, Submarine Melting at the terminus of a temperate tidewater Glacier, Le Conte Glacier, Alaska, U.S.A. *Annals of Glaciology*, Volume 36, PP 57-65.

Motyka, R.J., O'Neel, S., **Connor, C.L.**, and Echelmeyer., 2002, 20th Century Thinning of Mendenhall Glacier, Alaska, and its Relationship to Climate, Lake-Calving, and Glacier Run-Off. *Journal of Global and Planetary Change*. V. 35, pp. 93-112.

Currie, L.D., Carter, D.T., Cooper, J., Gunter, M.E., and **Connor, C.L.**, 1996, Geology of the northeastern end of the Juneau Icefield Research Program Camp 26 northwestern British Columbia: Geological Survey of Canada, Current Research 1996-E, p. 77-86.

Technical Reports

Heavner M, DR Fatland, E Hood, **C, Connor**, (in press **2010**) SEAMONSTER: A wireless Sensor Web prototype applied to studying glaciated watersheds. NASA Earth Science Forum.

Heavner, M.J., Fatland, R, Hood, E, and Connor, C., 08/11/2009 SEAMONSTER: AIST Final Review. NASA Earth Science Technology Office Grant AIST-05-0105 NNX06AF26G. Period Covered 01-Spe 2—6 to 31-Aug 2009. <http://seamonsterak.com>

Connor, C.L. and Motyka, R.J., 2008, Friends of the Pleistocene (FOP) Alaska Cell: Field Guide to Quaternary of Southeast Alaska: Yakutat to Dixon Entrance. Companion Guide to annual field trip and supporting material for UAS GEOL 493-Quaternary Geology of Southeast Alaska <http://www.uaf.edu/aqc/fop2008>

Connor, C.L. (Feb 2009) Final Report to NSF for Experiential Discoveries in Geoscience Education (EDGE)- NSF Fastlane NSF Grant#-[0506671 www.edge.alaska.edu](http://www.edge.alaska.edu)

Connor, C.L. (July 2008), Southeast Alaska Uplift Vignette contributed to SERC Carleton College for faculty resources CUTTING EDGE: Teaching Geomorphology June 2008, July 2008 <http://serc.carleton.edu/NAGTWorkshops/geomorph/vignettes/25106.html>

UAS MEDIA Services. 2004. Presentations at the National Association of Geology Teachers 2003 Pacific Northwest Division Meeting UAS, Juneau, AK June 2003. Presentations by invited speakers on topics of interest to earth science educators in Alaska and across the US. (Geary, Parks, Carstensen, Ahlberg, Driedger, Buddington, Hull, Karl, Connor, Hood, & Ruhm). Edited by Ally Bower. To be broadcast on 360 TV and distributed through NAGT. 4 hours 46 minutes VIDEO.

Seifert, S.L., Randolph, J., and **Connor, C.L.**, Byers, C.. 2004. Comparative Bathymetry Mendenhall Lake 1972 to 2000 (GIS bathymetric maps in down-loadable ARC Shape Files and datasets with Metadata.) [UAS Spatial Data Download](#) > scroll to hydrologic datasets or look at [GINA-Hydrologic-Mendenhall Lake Bathymetry](#)

Connor, C.L.. 2003. Juneau Roadside Geology and Tracy Arm Field Guide for National Association of Geology Teachers (NAGT) Northwest Division annual meeting. Juneau AK. 45 pages. Available from: www.nagt.org [Guidebooks](#)

Williams, Martin and others, 2001. "White Out ". One hour documentary about glacial crevasses and avalanches partially filmed on the Mendenhall Glacier. Aired on the Discovery television Channel. Connor is one of "talking heads" along with Steve Lewis and Juneau Mountain Rescue Team. Pioneer TV Co. U.K.

Karl, S.M., Ager, T., Miller, L.D., and **Connor, C.L.**, 2001. Geologic Overview of the Mendenhall Glacier Valley. Field Trip Guide. Prepared for U.S. Forest Service Geofest Conference. Juneau, Alaska May 2001

Connor, C.L., and Motyka, R.J. 2000. The Disappearing Mendenhall Glacier. "Southeast Wild" Natural Science column in the Juneau Empire.

Connor, C.L. 1999 LeConte: A Tidewater Glacier in Calving Retreat, distributed by UAS Media Services. An eleven minute video that details the methodology and results of an NSF-funded research project studying a calving retreat cycle at the southernmost tidewater glacier in North America. This was a four year collaborative study by faculty and students from the University of Alaska and Petersburg High School. (Accepted by USFS LeConte-Stikine Wilderness Area as partial fulfillment for the publications required under research permit.)

Connor, C.L. and O'Haire, D. 1988 *Roadside Geology of Alaska*. Mountain Press Missoula Montana, 250 p. Completely revised edition is in preparation.

Armstrong, R., **Connor, C.L.**, Emerson, P., Hall, J., Jones, J., King, M., Mills, E., and Scholten, M. 1996. Perseverance Trail Guide, Taku Conservation Society and Alaska State Parks, 24 pages.

CONFERENCE PRESENTATIONS

Abstracts from **2007-2010 Science Meeting Presentations**

indicates UAS student co-author

-Allred, K., Lewis, S., Allred, C., and **Connor, C.** 2009 Wrangell Saint Elias National park and Preserve Cave Inventory Project 2009. The Alaska Geological Society 2009 Technical Conference Abstracts Volume Editors: Druckenmiller, P.S. and Patil, S., April 4, 2009 University Alaska Fairbanks.

-Ashley, S., Connor, C., Pyare, S., and Wold, R. 2009 The University Alaska Southeast's (UAS) Annual Carbon Footprint. The Alaska Geological Society 2009 Technical Conference Abstracts Volume Editors: Druckenmiller, P.S. and Patil, S., April 4, 2009 University Alaska Fairbanks.

-Connor, C.L., Fatland, R., Heavner, M.J., **Korzen, N., Galbraith, J., Sauer, D.,** and Hood, E.W. 2009, A dynamic physical characterization of the receding Mendenhall Glacier lake front terminus Juneau, Alaska. *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract Eos Trans. AGU, 90(52), Fall Meet. Suppl., Abstract C23B-0495 Session Title: C23B. Constraining and Improving Models of Glacier Dynamics Using Observations II Posters.

-Connor, C L, Drake, J, Good, C, Fatland, R, Hakala, M , Woodford, R, Donohoe*, R, Brenner*, Moriarty, T*, 2008, Glacier Change and Biologic Succession: a new Alaska Summer Research Academy (ASRA) Science Camp Module for Grades 8-12 in Glacier Bay National Park, Alaska. *Eos Trans. American Geophysical Union* , 89(53), Fall Meet. Suppl., Abstract ED21B-0616

-Connor, C, Korzen, N, Knuth, E, Sauer, D, Heavner, M, 2008, Changing Lake Bathymetry with Deglaciation: The Mendenhall Glacier System, *Eos Trans. AGU*, 89 (53), Fall Meet. Suppl., Abstract C31E-0565.

-Connor, C. and Prakash, A, 2008, GIS In Alaska's Grades 6-12 Earth Science Environment: The Experiential Discoveries in Geoscience Education (EDGE) Project. Geological Society of America 2008 Joint Annual Meeting, 5-9 Oct. 2008, Houston, Texas

-M Heavner, D R Fatland, E W Hood, **C L Connor,** 2009, SEAMONSTER: A wireless Sensor Web prototype applied to studying glaciated watersheds (Invited) *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract *Eos Trans. AGU*, 90(52), Fall Meet. Suppl. Abstract IN13C-01 Oral Session. Earth and Space Science Informatics Section: Sensing, Networking, and Fusing the Data.

-Heavner, M, Fatland, D R, **Habermann, M*, Berner, L*,** Hood, E, **Connor, C,** Galbraith, J*, Knuth, E*, O'Brien, W, 2008, Sensor Webs and Virtual Globes: Enabling Understanding of Changes in a partially Glaciated Watershed *Eos Trans. AGU*, 89 (53), Fall Meet. Suppl., Abstract IN41B-1159.

-Heavner M, E Hood, **J Jones*,** R Fatland, R Hock, **C Connor,** 2008, Sensor Web Use Case: Monitoring Glacier Hydrology and Mass Balance on a Small Temperate Glacier, NASA AIST PI Workshop, Orlando, Florida, April

-Heavner, M, Hood, E, **Connor, C, Habermann, M*, and Berner, L*** 2008, Monitoring Lemon Glacier Using a Wireless Sensor Network in Juneau, Alaska: The SEAMONSTER Project. Geological Society of America 2008 Joint Annual Meeting, 5-9 Oct. 2008, Houston, Texas.

-Hock*, L. and **Connor, C,** 2008, Determination of Bedrock Weathering Rates in the Juneau Area, Northern Southeast Alaska Geological Society of America 2008 Joint Annual Meeting, 5-9 Oct. 2008, Houston, Texas.

-Hood E, MJ Heavner, DR Fatland, and **C Connor,** 2007, "Applications of a Sensor Web in Southeast Alaska," presented at the North Pacific Environmental Satellite Workshop for Coastal and Marine Applications, May 29, 2007.

-Jones, J*, Hood, E, Fatland, D R, **Berner, L*,** Heavner, M, **Connor, C,** O'Brien, W, 2008, A

wireless partially glaciated watershed in a virtual globe: Integrating data, models, and visualization to increase climate change understanding. *Eos Trans. AGU*, 89 (53), Fall Meet. Suppl., Abstract ED53A-0590.

-Nicholas M. Korzen, M. Habermann, M. Heavner, E. Hood, R. Fatland, and **C. Connor** 2009, Multiyear observations and data collection of links between hydrological inputs and glacier velocity in a small temperate glacier in southeastern Alaska. Fifth Annual Science Forum NOAA ISET Program. Howard University Nov 12-14, 2009 Howard University Washington DC.

-Prakash, A and **Connor, C**, 2008, Recruiting first generation college students into the Geosciences: Alaska's EDGE project *Eos Trans. AGU*, 89 (53), Fall Meet. Suppl., Abstract C31E-0565. ED52A-03

-Smith, I.*, Sauer, D.*, Korzen, N.*, Knuth, E.*, Barnes, R.*, Heavner, M., **Connor, C.** and Nagorksi, S., 2009 Changes in Bathymetry and Sedimentation in Proglacial Mendenhall Lake 1973-2008. The Alaska Geological Society 2009 Technical Conference Abstracts Volume Editors: Druckenmiller, P.S. and Patil, S., April 4, 2009 University Alaska Fairbanks.

PUBLIC AND UNIVERSITY SERVICE

Public Presentations and Community Service

UAS Evening at the Egan Public Lecture Series

1999-Glaciers in Southeast Alaska

2003-Glacier Bay Geology and Archeology

2004-The Auke Lake Story

USFS Fireside Chats-Public Lecture Series

2004-Geology of the Mendenhall Valley

2005-2010 Annual status of the Mendenhall Glacier –SEAMONSTER monitoring project

2009 Geology of the Sitka Area Sitka Conservation Society-

UA-Alaska Statewide

2006-2009 Faculty Alliance (3 MAU Faculty Senate Presidents past, present, future)

2003-2004 UA Health Care Committee

2002-present Alaska State Councilor National Association of Geology Teachers, PAC NW Div.

UAS-Southeast MAU-wide

Spring 2009-Curriculum Committee Chair

2009 – 2010 Accreditation Committee, wrote txt for STANDARD 4 Faculty Welfare with Brian Edmonds

2007 – 2008 UAS Faculty Senate President

2002-2004-Juneau At Large Senator UAS Faculty Senate

UAS TLTR Committee

1994-present UAS Affiliate Director Alaska Space Grant Consortium

Arts and Sciences-Department of Natural Sciences-Southeast MAU

1998 – 2006, 2010-present Coordinator UAS Environmental Science Program

1998-present search committees for tenure track faculty positions in

Biology (2), Chemistry (1), Hydrology (2), Mathematics (2), Physics (1)

BIOSKETCH

Cathy Connor is Coordinator of the Environmental Science Program, which she helped to establish in 1998, in the Department of at the University Natural Sciences of Alaska Southeast (UAS). She is a Professor of Geology in both the Environmental Science and Physical Geography (B.S.) Programs at UAS. She began her academic training in the geology at Stanford University in the San Francisco Bay Area, completing a BS and MS through the School of Earth Sciences co-terminal program (5 year program 1970-1975). At this time she also worked as a student

technician at the nearby United States Geological Survey (USGS) in Menlo Park, California in the Geochemistry and Geochronology lab. There she contributed to the radiometric age dating of Alaska rocks using a solid source mass spectrometer. Following a 2-year stint in the U.S Peace Corps (1975-1977) as a Geology Instructor in the Department of Soils Science at the Agricultural University of Malaysia, she returned to the USGS, joining the Branch of Alaskan Geology as a physical science technician and worked on field mapping projects throughout Alaska (1978-1983). During this time she completed a PhD program in the Geology Department at the University Montana, Missoula, working jointly with the USGS on her dissertation in Alaska. In 1982 she transferred to the Branch of Alaskan Geology in Anchorage before moving to Juneau, in 1983. After a pause for marriage and motherhood, she resumed her pursuit of Earth Science in 1991 as an instructor at the University of Alaska Southeast in Juneau, where she has been ever since. Throughout her career, her interests have been primarily in modern surface sedimentation processes in estuarine and glacial fjord systems and the records they have left in Quaternary deposits. An added fascination with active tectonic processes led to her authorship of *Roadside Geology of Alaska* published by her graduate school professors at Mountain Press in Missoula, Montana. More recently she has put her experience to work training USFS Naturalists, Alaska's science teachers and their students. She supports K-12 experiential science education in Juneau, AK through her work with Discovery Southeast, a non-profit Nature Education Organization.