

## Curriculum Vitae

Catherine Schuur Duncan (Laurie)

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### Education

Ph.D.	University of Texas at Austin, Department of Geological Sciences, Supervisory committee: WE Galloway, JA Goff, JA Austin, Jr., WF Fisher, RT Buffler, CS Fulthorpe	2001
M.A.	University of Texas at Austin, Department of Geological Sciences, Supervisory committee: MF Coffin, IWD Dalziel, WE Galloway	1997
B.A.	Dartmouth College, Hanover, NH, Department of Earth Sciences with honors, minor in environmental studies, citation in creative writing. Thesis advisors: CL Drake, WE Hamilton (NPS)	1992
H.S. Diploma	St. Paul's School, Concord, NH, <i>cum laude</i> with honors in English, history, religion	1988

### Employment

University of Texas at Austin Austin, Texas	Adjunct assistant professor, Jackson School of Geosciences, Department of Geological Sciences, GEO 303 co-lecturer	2011
Austin Community College Austin, Texas	Adjunct professor of geology and environmental science, Tutor. Courses include physical geology, environmental geology and environmental science.	2002- Present
Potato Hill Science Writing Austin, Texas	Freelance science and nature writing, consulting and editing	2001- Present
Office of Naval Research/ University of Texas Institute for Geophysics Austin, Texas	Graduate researcher, ONR's STRATA FORMation on Margins (STRATAFORM) initiative. Acquisition, analysis, interpretation and publication of shallow marine seismic, swath sonar and sediment sample data from the New Jersey and California continental shelves.	1997- 2001
University of Texas Institute for Geophysics Austin, Texas	Graduate researcher, Macquarie Ridge Project (NSF). Acquisition, analysis, interpretation and publication of marine seismic and swath sonar data.	1994- 1997
University of Texas Dept. of Geological Sciences Austin, Texas	Teaching Assistant, GEO 303, Introductory geology, professor Leon Long, and GEO 312, Geology for engineers, professor Jack Sharp.	1994- 1996
Outpost Wilderness Adventure Lake George, Colorado	Senior mountain guide. Rock climbing, mountain biking, backpacking and mountaineering trips and instruction for all ages and abilities. David Appleton, director	1992- 2002
Mo Ranch Hunt, Texas	Teacher, Environmental Leadership program. Short courses in natural science and outdoor skills for middle and secondary school students	1993
Department of Energy Lawrence Berkeley Laboratory Berkeley, California	Laboratory/Field Intern: Neotectonics of the Hayward Fault, Thule Pond trench project. Supervisor, PL Williams	1992
Dartmouth College Department of Earth Sciences Hanover, New Hampshire	Laboratory Assistant: Sample preparation for fission track dating Teaching Assistant: "Fate of the Earth," Prof. Naomi Oreskes	1991- 1992

## Field Experience

Austin Community College	Central Texas field trips for physical and environmental geology. Instruction, field guides and supplemental materials	2002- Present
RV <i>Marion-Dufresne II</i> cruise	New Jersey shelf stratigraphy, Calypso piston coring	1999
RV <i>Onrust</i> cruise	New Jersey shelf stratigraphy, chirp sonar survey	1999
RV <i>Onrust</i> cruise	New Jersey shelf stratigraphy, grab sample collection	1998
RV <i>Melville</i> cruise	Eel River basin, CA shelf stratigraphy, sediment cores	1997
RV <i>Wecoma</i> cruise	Eel River basin, California shelf stratigraphy, multi-channel seismic reflection survey	1996
CHS <i>Creed</i> swath survey	New Jersey shelf acoustics and geomorphology, Simrad swath bathymetry and sidescan sonar	1996
RV <i>Rig Seismic</i> cruise RS124	Macquarie Ridge tectonics, geophysical survey: HAWAII MRI swath bathymetry and sidescan, multi-channel seismic survey, gravity, magnetics	1994
Lawrence Berkeley Laboratory	San Francisco Bay area neotectonics, Hayward Fault trenching project, SF Bay ultra-high resolution seismic reflection survey	1992
Yellowstone National Park	Glacial geomorphology and caldera neotectonics, field mapping and survey project	1991
Dartmouth College	“The Stretch,” field geology course in New England, Western U.S. and Mexico	1990

## Fellowships, Awards and Memberships

Dissertation nominated for University of Texas best dissertation award	University of Texas, 2001-2002 award, nomination by dissertation committee	2001
Office of Naval Research ASSERT grant, STRATFORM initiative	ONR grant to Goff, Austin and Fulthorpe at UTIG	1997-2001
Gale White Fellowship	University of Texas Institute for Geophysics	1999
Ewing-Worzel Fellowship	University of Texas Institute for Geophysics	1995
Jesse L. Brundrett endowed presidential fellowship	University of Texas Department of Geological Sciences	1993-1995
Science and Engineering Research Semester fellowship	U.S. Department of Energy SERS Program, Lawrence Berkeley Laboratory	1992

Member: American Geophysical Union (AGU), Geological Society of America (GSA), National Association of Science Writers (NASW), Orion Society, Texas Freedom Network, Union of Concerned Scientists

## Publications and Theses

- WH Freeman and Co. (in preparation) *Key Concepts in Geomorphology*, LS Duncan, editor.
- SJ Njordford, JA Goff, JA Austin, Jr., LS Duncan (2009) Shallow stratigraphy and complex transgressive ravinement on the New Jersey middle and outer continental shelf, *Marine Geology*,
- Gazlay, Suzy with Laurie Duncan, seismology consultant (2008) *Scienceworks! Study Earthquakes*, Gareth Stevens Publishing, Strongsville, OH, 32 pp.
- Lerner, K.L. and B.W. Lerner, editors (2005) *UXL Encyclopedia of Water Science*, UXL, New York, 510 pp.
- Lerner, K.L. and B.W. Lerner, editors (2005) *Encyclopedia of Espionage, Intelligence and Security*, Thomson-Gale, Farmington Hills, MI.
- Lerner, K.L. and B.W. Lerner, editors (2003) *Gale Encyclopedia of Science, 3rd edition*, Thomson-Gale, Farmington Hills, MI.
- Lerner, K.L. editor (2002) *World of Earth Science*, Thomson-Gale, Farmington Hills, MI, 600 pp.

- Duncan, CS (2001) Latest Quaternary stratigraphy and seafloor morphology of the New Jersey continental shelf, *Ph.D. dissertation*, University of Texas at Austin, 226 pp.
- Duncan, CS and JA Goff (2001) Relict iceberg keel marks on the New Jersey outer shelf, southern Hudson apron, *Geology*, v. 29, p. 411-414.
- Duncan, CS, JA Goff, JA Austin, Jr. and CS Fulthorpe (2000) Tracking the last sea level cycle: Seafloor morphology and shallow stratigraphy of the latest Quaternary middle continental shelf, *Marine Geology*, v. 170, p. 395-421.
- Goff, JA, HC Olson and CS Duncan (2000) Correlation of sidescatter intensity with grain-size distribution of shelf sediments, New Jersey margin, *Geo-Marine Letters*, v. 20, 43-49.
- Goff, JA, DJP Swift, CS Duncan, LA Mayer and JE Hughes-Clarke (1999) High-resolution swath sonar investigation of sand ridge, dune and ribbon morphology in the offshore environment of the New Jersey margin, *Marine Geology*, v. 161, 307-337.
- Schuur, CL, MF Coffin, P Mann, C Massell, C Frohlich, G Karner, D Ramesy and D Caress (1998) Sedimentary regimes at the Macquarie Ridge Complex: interaction of Southern Ocean circulation and plate boundary bathymetry, *Paleoceanography*, v. 13, no. 6, 646-670.
- Schuur, CL (1997) Sedimentary regimes at the Macquarie Ridge Complex south of New Zealand: interaction of southern ocean circulation and tectonism, *MA Thesis*, University of Texas at Austin, 110 pp.
- Schuur, CL (1992) Effects of caldera readjustment on glacial morphology at Yellowstone Lake, Wyoming, *senior honors thesis*, Dartmouth College, 75 pp.

### **Selected abstracts and meetings**

- Duncan, CS, JA Goff and JA Austin, Jr. (2000) Swath sonar and chirp seismic investigation of the Barnegat corridor, New Jersey continental shelf, *Eos*, v. 81.
- Duncan, CS, JA Goff, JA Austin, Jr., HC Olson and NW Driscoll (2000) Very high-resolution seismic stratigraphic investigation of the last sea level cycle; latest Quaternary stratigraphy and seafloor morphology of the New Jersey inner shelf, *2000 AAPG Annual Convention*, New Orleans, LA.
- Duncan CS, *Office of Naval Research Colloquium on Oceanography: The Making of a Science*, February 22-23, College Station, TX, student presenter and panelist.
- Duncan CS, JA Goff, JA Austin, Jr. and HC Olson (1999) Icebergs off New Jersey! Latest Quaternary seafloor morphology and shallow stratigraphy of the New Jersey outer continental shelf, southern Hudson Apron, *Eos*, v. 80, p. 581.
- Schuur, CL, JA Austin, Jr. and JA Goff (1998) Evidence for the most recent eustatic cycle on the New Jersey shelf: Quaternary analogues for ancient shelf surfaces, *1999 AAPG Annual Convention*, San Antonio, v. 8, A126.
- Schuur, CL, JA Goff and JA Austin, Jr. (1998) Evidence for the most recent eustatic cycle from ultra-high resolution seismic data, acoustic swath maps and vibracores from the New Jersey shelf, *Eos*, v. 79, p. 467.
- Schuur, CL (1998) *National Science Foundation Symposium on Fifty Years of Ocean Discovery*, October 28-30, Washington D.C., student invitee.
- Schuur, CL (1998) STRATAFORM core site selection workshop, October 15-17, Savannah, GA, participant.
- Schuur, CL JA Goff, JA Austin, Jr. and CS Fulthorpe (1997) High-resolution Quaternary sequence stratigraphy and seafloor geomorphology on the New Jersey continental shelf, *Eos*, v. 78, p. 363.
- Schuur, CL, JA Goff, JA Austin, Jr., LA Mayer and JE Hughes-Clarke (1996) Quaternary geomorphology of the New Jersey continental shelf from acoustic swath mapping and high-resolution seismic reflection data, *Eos*, v. 77, p. 328.
- Schuur, CL, MF Coffin, C Frohlich, P Mann, C Massell, G Karner, J Fang, D Caress, C Helsley, D Johnson, D Falvey, D Ramsey, T Jones and J-F Lebrun (1995) The southern Solander Fan, SW Pacific Ocean: implications for regional tectonics and paleoceanography, *Eos*, v. 76, p. 581.
- Schuur, CL, MF Coffin, C Frohlich, P Mann, C Massell, G Karner, J Fang, D Caress, C Helsley, D Johnson, D Falvey, D Ramsey, T Jones and J-F Lebrun (1994) Tectonic and oceanographic controls on deep ocean sedimentation at the Macquarie Ridge Complex, *Eos*, v. 75, p. 668.

### **Skills and activities**

Skills: Textbook writing, editing and graphics. Computer and laboratory proficiency: Advanced geophysical/geological data collection, processing, interpretation and presentation skills. Web site design, online authoring. Field mapping and surveying. Rock and sediment sample laboratory preparation and analysis.

Activities: Barton Creek Elementary Science Fair (chair) and Science Day (presenter and committee member), yogi, mountain bike racer (expert class 1995-2003), rock climber, rower (Dartmouth varsity women's crew 1988-1992), Texas State Science Fair judge (since 1997)

Family: Husband, Drew and daughters, Emily (7 years old) and Molly (2 years old)