# CURRICULUM VITAE

**Terry W. Swanson**
Principal Lecturer
Department of Earth & Space Science
University of Washington

Birthdate: 15 March, 1960  Citizenship: United States

## Academic Training

Ph.D., 1994, Geological Sciences, University of Washington, Seattle Washington.
Ph.D. Dissertation: *Determination of $^{36}Cl$ Production Rates from the Deglaciation History of Whidbey and Fidalgo Islands, Washington*. Supervisor: Stephen C. Porter
M.A., 1989, Geography, University of California, Davis, California.
M.A. Thesis: *The Quaternary Glacial History of the White Mountains, California and Regional Paleoclimatic Implications*. Supervisor: Deborah Elliott-Fisk
B.A., 1984. Behavioral Sciences. University of British Columbia

## Teaching and Research Positions Held

2012-Present: Principal Lecturer, Department of Earth and Space Sciences, University of Washington, Seattle, Washington. Responsible for teaching undergraduate courses and graduate teaching seminar. Courses taught include: Introductory Geology, Geology of the Pacific Northwest, Environments of the Glacial Ages, Environmental Geology, Glacial Geology and graduate-level instructional development seminar. Advising graduate and undergraduate students in research. K-12 outreach.

1999-Present: Senior Lecturer, Department of Earth and Space Sciences (Formerly Geological Sciences), University of Washington, Seattle, Washington.

1994-1999: Lecturer, Department of Geological Sciences, University of Washington, Seattle, Washington

1997-Present: Research Associate Scientist., Quaternary Research Center, University of Washington. Expertise in Quaternary Geology and Cosmogenic Isotope Dating.

1992-1994: Pre-doctoral Lecturer, Department of Geological Sciences, University of Washington, Seattle, Washington. Responsible for teaching introductory geology courses and supervising new teaching assistants in the introductory geology laboratory program.

1988-1992: Teaching/Research Assistant: Department of Geological Sciences, UW, Seattle, Washington. Responsible for teaching the laboratory classes in introductory and advanced geology courses and conducting independent research in the earth sciences.

1987-1988: Soils consultant for the Stags Leap Appellation Committee in Napa Valley, California. Responsibile for conducting field and laboratory analyses of soils within the Stags Leap Appellation of Napa County, California.

**Research Awards**

**National Science Foundation Research Award (CO-P.I.) ($287,554) CRONUS Undergraduate outreach (2005-2009).** *Cosmic-Ray Produced Systematics on Earth*. The Cronus-Earth undergraduate research program was very successful in providing undergraduate students with field-based research opportunities and research assistantships. UW undergraduate students who participated in the research program included: Heather Rogers, Melissa Fiorintini, Hope Sisley, Suzanne Cruchon, Matthew O'Hare, Zachary Ploskey, David Kiehl, Jakub Silwinski, Jeff Tracy.

**National Science Foundation Research Award (CO-P.I. with Drs. Stephen Porter and Marek Zreda), ($250,000) (1996-2001).** *Late Quaternary climatic and geologic history of Africa from cosmogenic surface exposure dating of glacial and lake deposits*. Two UW graduate students (Robert Viens and Todd Hurley) and two UW undergraduate students (Jason Briner and David Mohler) participated in field-based research in Kenya and Tanzania. Provided undergraduate research assistantships to Jason Briner, Dan McCrumb and Mary Howerton.

**National Science Foundation Research Award (co-Investigator with Dr. Stephen C. Porter), Grant was funded for $181,000 (1992-1996).** *Younger Dryas Oscillation in Western North America*. Provided research assistantships to two graduate students: Robert Viens and Todd Hurley. Provided undergraduate research assistantships to David Mohler and Jason Briner.

**National Science Foundation Undergraduate Supplemental Research Award (P.I.).** 1994 and 1995. Supplemental awards funded for $12,000 to enhance undergraduate research at the University of Washington. Undergraduate students Jason Briner and David Mohler served as research assistants in my laboratory.

**Honors and Fellowships**

Dean's Letter of Recognition for Teaching Excellence (Environmental College) Autumn 2013, Spring 2013, Autumn 2012.
Promoted to Principal Lecturer, University of Washington, 2012.
Distinguished Teaching Award, University of Washington, 2007.
Intrafraternity Council Excellence in Teaching Award. University of Washington, 2007.
Panhellenic Association of University of Washington Excellence in Teaching Award 2007.
ESS Excellence in Teaching Award 2004.

**Departmental Committees and Service**

2016-Present mentor scientist (NASA summer field camp for disadvantaged high schools)
2015-Admissions Committee
2012- 2013 Curriculum Committee
2011-Present and 2005-2008: Scholarship and Awards committee, ESS Department
2010-11: Julian Barksdale Distinguished Service Award Committee
2009-10: ESS Excellence in Teaching Award Committee
1998-2000 Curriculum Committee (Department of Geological Sciences)

**UW Committees and Service**

2017-Present-College of the Environment Scholarship and Awards Committee

2011-Present: Member, Teaching Learning and Oversight Committee, UW
2015: Integrated Science Steering Committee
2008: UW Distinguished Teaching Award Committee
2004-2005: Faculty advisor for incoming freshmen at UW *Dawg Daze*.
2003-2005: Faculty Senate, University of Washington.
2004: Executive Council of the Faculty Senate, University of Washington.
2000, 2001 and 2003: Faculty facilitator Large Class Collegium, Office of Undergraduate Education.
1998 Curriculum Development Committee for Program on the Environment (UW)

**Professional Service**

2017: Fieldtrip Leader: (Island County Historical Museum) Coupeville WA Apr. 14, 2017.
2015: Invited speaker (Whidbey Island EcoNetwork) Langley, WA Sept. 14 & 21, 2015.
2014: Fieldtrip Leader: (AMQUA Meeting), Seattle WA. August 8th 2014.
2014: Invited speaker (WSU Extension Bay Watchers) Oak Harbor, WA February 2, 2014.
2013: Invited speaker (Island County Natural Hazard Assessment) Oak Harbor, WA July 10, 2013.
2013: Invited speaker (City of Langley Landslide Hazard Assessment) Langley, WA June 4, 2013
2012: Keynote speaker, Ice Age Flood symposia, Ellensburg, WA.
2010: Fieldtrip Leader, Northwest Geological Society meeting.
2009: Fieldtrip Leader, Thermoluminescence Dating International Meetings, UW
2005: Keynote address Whidbey Historical Society (April 3rd, 2005).
2003: Fieldtrip Chairperson for Geological Society of America National Meetings, Seattle, WA (November 2-6, 2003).
1999: Consulting scientist for *BILL NYE the Science Guy*. Public Broadcasting Corporation.
1994: Chairman of K-12 education program: Geological Society of America National Meeting, Seattle, Washington.
1994: Co-chairman of Cosmogenic Isotope Symposium: Quaternary Research Center, University of Washington, Seattle, Washington.

**K-12 Service and Outreach**

March-April 2017: Island County Historical Society Museum, Consulting geologist for glacial history exhibit at ICHS museum, Coupeville.
Feb. 2017- Present: Washington State Park (Grant Heiken) Consulting geologist assisting with interpretive plaques for local Whidbey Island parks.
2016: Northwest ESS Pipeline, UW NASA Consortium and Mission Earth. Led glacial geology field trip to Whidbey Island for local disadvantaged middle and high school students interested in STEM fields.
2014 and 2015: Whidbey Island Center for Arts- field trip leader (Whidbey Island Glaciation).
2014-2015: Faculty mentor for 10th grade earth science projects South Whidbey High School.
2013-2014: Faculty mentor for 10th grade earth science projects South Whidbey High School.
2012-2013: Faculty mentor for 10th grade earth science projects South Whidbey High School.
2010-2011: Faculty mentor for 8th grade capstone science project Langley MS. Involved 140 8th grade students
2008-2009: 6-8th grade science curriculum committee, South Whidbey School District.
2002-2008: Field trip leader and faculty mentor to South Whidbey Intermediate School teachers and classrooms (Teachers: Cathy Stanley, Pamela Muncie, Rene Neff, Michele Zisette).
2006: ESS representative for South Whidbey School District Career Day.
2005: Science educator for "Sound Waters" WSU Beachwatchers, Island County

1997-2000 K-6 summer teaching training workshop (Seattle School District). Inquiry based learning workshop. Trained Seattle School district teachers to teach their new third grade geology curriculum.
1996-97: Mentor scientist for the TASK K-12 science education program, Department of Education, University of Washington, Seattle, Washington
1994-1995: Consulting scientist at the WISESTEP K-12 science curriculum program, Department of Education, University of Washington, Seattle, Washington.
1994-Present: Volunteer guest speaker at local schools and scout troops in the Puget Sound region. Provided ESS departmental tours and led classroom visits to the Burke Museum.

**Professional Organizations**

Geological Society of America (Geomorphology Specialty Group)
American Geophysical Union
American Quaternary Association
International Union of Quaternary Research
Sigma Xi
Mazamas

**Graduate Students Supervised**

Hope Sisley (M.S., Department of ESS, 2016) Co-Advisor with Dr. John Stone: *Meltwater Pulse 1A preserved in the post-glacial marine high-stand terrace record on San Juan Island, Washington*.
Devin Bedard (M.S., Department of ESS, 2016) Supervisor: *Nature and Cause(s) of Deep-Seated, Rotational Landslides on Whidbey Island, WA*.
Heather Rogers (M.S., Department of ESS, 2009) Supervisor: *Long-term shoreline retreat rates on Whidbey Island, WA*.
Paul Zehfuss (Ph.D., Department of ESS 2005) Committee Member: *Lowland deposits derived from Mount Rainier lahars*.
Peter Apostle (M.S. Department of ESS, 2004) Committee Member: *Holocene moraine chronology at Mount Rainier, WA based on tephrochronology and surface-exposure ages*.
Dan McCrumb (M.S. Department of ESS, 2002) Supervisor: *Age constraints for a late-glacial moraine shoal in Howe Sound, British Columbia*.

**ESS Undergraduate Students Supervised**

Regupathi Angappan_ESS (Current Student) Mary Gates Research Fellow
Jennifer Huynh _____ENVIR (Current Student) Undergraduate research project
Nadrah Hushin _____ESS (Current Student) Undergraduate research project
Kalpana Prasad _____ESS (Current Student) Undergraduate research project
Ashly Padgett _____ESS (B.S. 6/2016) Undergraduate research project
Nikolas Midttun ____ESS (B.S. 12/2015) Undergraduate research project
Tait Russell _____ESS (B.S. 6/2014) Undergraduate research project
Heather Bervid _____ESS (B.S. 6/2014) Mary Gates Research Fellow; Dean's Medalist
Elena Hengstmann __ESS (Visiting Student Germany, 2014) Post-undergraduate project
Brady Kent _____ESS (B.S. 6/2014) Undergraduate research project
Monica Kidwell ____ESS (B.A. 6/2014) Undergraduate research project
Amanda Dopps _____ESS (B.S. 6/2012) Undergraduate research assistant
Darcy Voorhies ____ESS (B.S. 6/2012) Undergraduate research assistant
Trevor Walchenbach_ESS (B.S., 9/2011). Undergraduate teaching assistant

Matthew O'Hare ____ESS (B.S., 6/2010) ESS Research Symposium
Zachary Ploskey ____ESS (B.S.,6/2009) Mary Gates Research Symposium
David Kiehl_____ESS (B.S., 6/2009) Mary Gates Research Fellowship
Suzanne Cruchon ESS (B.S., 6/2009) NASA SURP Researcher
Hope Sisley __ESS (B.S., 6/2008) Mary Gates Research Fellowship
Greg Van Etton _____ESS (B.S., 12/2006) Mary Gates Research Symposium
Melissa Fiorentino __ESS (B.S., 9/2006) Undergraduate research assistant
Jeff Tracy _____ESS (B.S., 6/2006) Mary Gates Research Symposium
Mary Howerton____ ESS (B.S., 3/2006) Undergraduate research assistant
Heather Rogers _____ESS (B.S., 9/2005). AGU National Meeting, San Francisco 2006.
Ryan Mano _____ESS (B.S., 3/2005) GSA National Meetings, Seattle 2003.
Michelle Mullen ____ESS (B.S., 12/2004) GSA National Meetings, Seattle 2003.
Cambria Nelson ____ESS (B.S., 6/2004) GSA National Meetings, Seattle 2003.
Solmaz Mohadier ___GEOL (B.S., 6/2004) GSA National Meetings, Seattle 2003.
Justin Nelson_____PS/Anth B.S. 12/2003) GSA National Meetings, Seattle 2003.
Daniel McCrumb___ GEOL (B.S., 12/1998) GSA National Meetings, Toronto 1998.
Jason Brinier _____ GEOL (B.S., 6/1996) (GSA National Meetings, Denver 1996
David Mohler _____ Civ Eng. (B.S. 03/1992) Research Assistant

**General Studies Undergraduate Students Advised**
Yijin Lee Gen St. – December 2016 Diversity Teams in the Workplace
Kelsey Plum Gen St. – August 2014 Woman's Professional Basketball
Kelly Holford Gen St. – June 2013 Event planning for Tyee Club UW Athletics
Sarah Velling Gen St. – June 2012 US Postal Inspection Service Internship
Amanda Gill Gen St - March 2012 Videography/Computer Display Athletic Program
Nicholas Kamisar ESS 499 March 2012 Icelandic Volcanism
Madison Culp Gen St. August 2011 Motivational coaching
Kari Davidson Gen St - December 2010 humanitarian outreach Ghana
Coretin Morel Gen St - August 2010 earthquake preparedness in Seattle HS
MacKenize Argens Gen St - June 2010 business management
Anna Quach Gen St - June 2010 business management
Hannah Kim Gen St – June 2010 business management
Kristen Baker Gen St - Mar. 2010 radio advertising internship
McKenna Waitley Gen St - Mar. 2010 athletic marketing internship
Janelle Iverson Gen St - Dec. 2009 radio broadcasting internship

**Articles (Published** or to be **Submitted) (Student advisees highlighted in bold itatlics font)**

***Sisley, H.,*** Swanson, T.W., and Stone, J.O. (in revision for *GSA Bulletin*). Post-glacial marine high-stand terrace on San Juan Island, Washington: A Product of Meltwater Pulses 1A?

***Rogers, H.E.,*** Swanson, T.W., and Stone, J.O. (2012). Long-term shoreline retreat rates on Whidbey Island, WA." *Quaternary Research* **78,** 315-322.

Porter, S.C. and Swanson, T.W. (2008). Surface exposure ages and paleoclimatic environment of [Middle and] Late Pleistocene glacier advances, northeastern Cascade Range, Washington. *American Journal of Science*. **V. 308,** 130-166.

Swanson, T.W. and Caffee, M.L. (2005). Reply to comment by D.J. Easterbrook (Quaternary Research 2003, 59 #1, 132-134) on "Determination of $^{36}$Cl production rates from the Deglaciation History of Whidbey and Fidalgo Islands, Washington." *Quaternary Research* **63,** 228-230.

Swanson, T.W. (2003) Editor. "Geological Field Guide of the Western Cordillera and Adjacent Areas." Geological Society of America. 284 pp.

Putkonen, J. and Swanson, T.W. (2003)..Accuracy of cosmogenic ages for moraines. *Quaternary Research* **59 (2),** 255-261.

Swanson, T.W., and Caffee, M.L (2001). Determination of $^{36}$Cl production rates from the Deglaciation History of Whidbey and Fidalgo Islands, Washington. *Quaternary Research*. **56,** 366-382.

***Briner, J.P.,*** Swanson, T.W., and Caffee, M. (2001). Late Pleistocene cosmogenic $^{36}$Cl chronology of the southwestern Ahklun Mountains, Alaska. *Quaternary Research*. **56,** 148-154.

Porter, S.C., and Swanson, T.W. (1998) Advance and Retreat rate of the Cordilleran Ice Sheet in southeastern Puget Sound Region. *Quaternary Research **50,*** 205-213.

***Briner, J.P***. and Swanson, T.W. (1998) Inherited Cosmogenic $^{36}$Cl Constrains Glacial Erosion Rates of the Cordilleran Ice Sheet. *Geology*. ***26,*** 3-6.

Swanson, T.W., Elliott-Fisk, D.L., and Southard, R.J. (1993). Soil development trends in the Chiatovich Creek Basin, White Mountains, CA-NV in the absence of a chronosequence. *Quaternary Research*. ***39,*** 186-200.

***Sisley, H.M.,*** Swanson, T.W. and Stone, J.O. (2014). Post-glacial marine high-stand terrace on San Juan Island, Washington: A Product of Meltwater Pulses 1A? (Abs) *Geological Society of America Abstracts with Program* Vancouver, B.C., Vol. 46 No. 6, p. 265.

***Bedard, D.T.*** and Swanson, T.W. (2014). Better Understanding Landslide Triggers: What are the Cause(s) of Large Rotational Landslides along the Western Shoreline of Central Whidbey Island, Washington? (Abs) *Geological Society of America Abstracts with Program* Vancouver, B.C., Vol. 46 No. 6, p. 251.

***Rogers, H.E.*** and Swanson, T.W. (2008). Potential Application of Cosmogenic Nuclide Dating for the Quantitative Assessment of Shoreline Retreat in the Puget Sound, WA. (Abs) *Geological Society of America Abstracts with Program* Cordilleran Section (March 19$^{th}$-21$^{st}$) Las Vegas, NV.

***Rogers, H.E.*** and Swanson, T.W. (2006). Quantitative Analysis of Holocene Shoreline Retreat in Unconsolidated Sediment within the northern Puget Lowland, WA. (Abs.) American Geophysical Union Abstracts with Programs., San Francisco, CA. H33B-1493.

Swanson, T.W. and Porter, S.C. (2005). Cl-36 Dating of the Pleistocene Glacial Record in the Icicle Creek Drainage, Cascade Range, Washington. (Abs) *Geological Society of America Abstracts with Program* Vol. 37 No. 7 Salt Lake City, Utah.

***Mullen, M.M., Mano, R.S., Nelson, J. W.*** and Swanson, T.W. (2003). Till-fabric analyses of NE-SW trending flutes on northern Whidbey Island: Evidence of readvance of the Cordilleran Ice Sheet during the latest Vashon Stade of the Fraser Glaciation. (Abs) *Geological Society of America Abstracts with Program* Seattle, WA. 27-6.

***Nelson, C., Mohadjer, S.,*** and Swanson, T.W. (2003). Comparative evaluations of deformation structures exposed in the Double Bluff stratigraphy of Whidbey Island, WA. *Geological Society of America Abstracts with Program* Seattle, WA. 27-5.

Swanson, T.W. and Porter, S.C. (2000). $^{36}$Cl Evidence for maximum Late Pleistocene glacier extent in the Cascade Range during Marine Oxygen Isotope Substage 5d. (Abs) *Geological Society of America Abstracts with Program* Reno, Nevada. A-472.

Putkonen, J. and Swanson, T.W. (2000). Exposure age variation of surface boulders on moraines: quantifying the dating accuracy. (Abs) *Geological Society of America Abstracts with Program* Reno, Nevada. A-511.

***McCrumb, D.H.*** and Swanson, T.W. (2000). Using the Ring Creek lava flow to determine the effects of snow cover on Chlorine-36 production in Howe Sound, British Columbia. (Abs) *Geological Society of America Abstracts with Program* Reno, Nevada. A-472.

Swanson, T.W. and Porter, S.C. (1999). Surface-Exposure Ages for Alpine Glaciation in the Southern North Cascade Range. (Abs.) American Geophysical Union Abstracts with Program. H12D-05.

***McCrumb, D.H.,*** and Swanson, T.W. (1998). Cosmogenic Cl-36 Age Constraints on the Deglaciation History of the Cordilleran Ice Sheet from Howe Sound, British Columbia. (Abs) *Geological Society of America Abstracts with Program* Toronto, Ontario. A135.

Porter, S.C., and Swanson, T.W. (1998) Advance and Retreat rate of the Cordilleran Ice Sheet in southeastern Puget Sound Region. (Abs) *Geological Society of America Abstracts with Program* Toronto, Ontario.

***Briner, J.P.,*** Swanson, T.W., Kaufman, D.S., Caffee, M. (1998). Late Pleistocene Glacial Chronology of the Western Ahklun Mountains, SW Alaska. (Abs) *Geological Society of America Abstracts with Program* Toronto, Ontario.

Swanson, T.W. and Porter, S.C. (1997). New Cosmogenic Isotope Ages for the Last Glaciation in the Eastern North Cascade Range. (Abs) *Geological Society of America Abstracts with Program* Salt Lake City, Utah, A-109.

Swanson, T.W. (1996). Determination $^{36}$Cl Production Rates from the Deglaciation History of Whidbey and Fidalgo Islands, Washington. Abstracts presented at the Santa Fe workshop on secular variations in production rates of cosmogenic nuclides on earth. *Radiocarbon **38 (1),*** 172.

**Briner, J.P.,** and Swanson, T.W. (1996) Using inherited cosmogenic $^{36}$Cl to constrain the magnitude, rate and spatial distribution of glacial erosion. (Abs) *Geological Society of America Abstracts with Program* Denver, Colorado 433.

Swanson, T.W., Caffee, M., Finkel, R., Harris, L., Southon, J. (1994). Application of $^{36}$Cl isotopic dating based on the deglaciation history of the Cordilleran Ice Sheet in Washington and British Columbia. (Abs) *Geological Society of America Abstracts with Program* Seattle, WA.

Swanson, T.W., Caffee, M., Finkel, R., Harris, L., Southon, J., Zreda, M.G., Phillips, F.M. (1993). Establishment of new production parameters for Chlorine-36 dating based on the deglaciation history of Whidbey Island, Washington. (Abs) *Geological Society of America Abstracts with Program* **25**(6), p. 461.

Swanson, T.W., Caffee, M., Finkel, R., Harris, L., and Southon, J. (1993). Application of the chlorine-36 isotopic dating method for discriminating late-glacial landforms, Fraser Lowland, British Columbia and Snoqulmie Pass, Washington. (Abs.) *IGCP 253 Abstracts with Programs,* Winnepeg, Manitoba, Canada.

Swanson, T.W. and Sharma, P. (1992). Chlorine-36 dating of glacial deposits from the Cordilleran ice sheet in the Puget Sound and Columbial Plateau regions and alpine glaciers in the eastern Cascades, WA.: implications for the nature and timing of deglaciation. (Abs.) *Geological Society of America Abstracts with Programs, Cordilleran Section,* Eugene, OR.

Swanson, T.W. and **Hurley, Todd M.** (1992). Evaluation of the linear diffusion equation for resolving and correlating moraine ages by differential slope evolution in the Pine Creek and Bloody Canyon drainages in the Sierra Nevada, CA. (Abs.) *Geological Society of America Abstracts with Programs, Cordilleran Section,* Eugene, OR.

Swanson, T.W., Sharma, P., Phillips, F.M., and Zreda, M. (1992). Determination of Chlorine-36 production rates from the deglaciation history of Whidbey Island, WA (Abs.) *by invitation to the Symposium on Accelerator Mass Spectrometry: Applications of Rare Isotopes as Tracers in Science and Technology,* Division of Nuclear Chemistry and Technology**,** San Francisco, CA.

Swanson, T.W. (1991). Late-glacial fluctuations in the western Cordillera: Evidence of a Younger Dryas Oscillation in Western North America? (Abs.) *XIIIth Congress of the International Union of Quaternary Research,* Beijing, China.

Swanson, T.W. (1990). Relative dating parameters and "good, old-fashioned" geology; implication for surface exposure-age dating in the Chiatovich Creek Basin, White Mountains, California-Nevada. (Abs.) *by invitation to the Penrose conference on surface exposure dating, Geological Society of America,* Mammoth Lakes, CA.

Swanson, T.W. Elliott-Fisk, D.L., Dorn, R.I. and Phillips, F.M. (1988). Quaternary glaciation of the Chiatovich Creek Basin, White Mountains, CA-NV: A multiple dating approach (Abs). *Geological Society of America Abstracts with Programs,* Denver, Colorado.