

## **EDWARD ARTHUR GEORGE SCHUUR**

Professor of Ecosystem Ecology, Center for Ecosystem Science and Society & Department of Biological Sciences; Northern Arizona University, Box 5640, Flagstaff, AZ 86011  
Phone: 928-523-3559; Fax 928-523-7500; email: ted.schuur@nau.edu

### **Professional Preparation**

Univ. of Michigan/Ann Arbor, MI, Cell and Molecular Biology, BS, *magna cum laude*, (1991)  
University of California/Berkeley, CA, Soil Science/Ecosystem Ecology, PhD, (1999)  
Univ. of California/Irvine, CA, Bioinformatics, NSF Postdoctoral Research Fellow (1999-2002)

### **Appointments**

Professor, Center for Ecosystem Science and Society & Department of Biological Sciences, Northern Arizona University (2014-present); Professor, Department of Biology, University of Florida (2013-2015); Associate Professor, Department of Biology, University of Florida (2008-2103); Assistant Professor, Department of Botany, University of Florida (2002-2008)

### **Most Related Publications (from >140 submitted or published papers)**

**Google Scholar Citations=13325; h index=53; i10 index=102 (as of 7/27/17)**

1. **Schuur, EAG**, AD McGuire, C Schaedel, et al. 2015. Climate change and the permafrost carbon feedback. *Nature* 520:171–179.
2. **Schuur, EAG**, BW Abbott, and 34 co-authors of the Permafrost Carbon Network. 2011. High risk of permafrost thaw. *Nature* 480:32-33
3. Mack, MC, MS Bret-Harte, TN Hollingsworth, RR Jandt, **EAG Schuur**, et al. 2011. Carbon loss from an unprecedented Arctic tundra wildfire. *Nature* 475:489-492
4. **Schuur, EAG**, JG Vogel, KG Crummer, H Lee, JO Sickman, and TE Osterkamp. 2009. The effect of permafrost thaw on old carbon loss and net carbon exchange in upland tundra. *Nature* 459:556-559
5. **Schuur, EAG**, J Bockheim, J Canadell, E Euskirchen, et al. 2008. Vulnerability of permafrost carbon to climate change: Implications for the global carbon cycle. *BioScience* 58:701-714

### **Other Relevant Products**

6. **Schuur, EAG**, E Druffel, and SE Trumbore. (Eds.). 2016. Radiocarbon and Climate Change: Mechanisms, Applications and Laboratory Techniques. Springer, 315 pp.
7. Tarnocai, C, JG Canadell, G Mazhitova, **EAG Schuur**, P Kuhry, and S Zimov. 2009. Soil Organic Carbon Pools in the Northern Circumpolar Permafrost Region. *Global Biogeochemical Cycles* 23, GB2023, doi:10.1029/2008GB003327.
8. Zimov, SA, **EAG Schuur**, and FS Chapin III. 2006. Permafrost in the global carbon budget. *Science* 312:1612-1613.
9. Randerson, JT, SD Chambers, FS Chapin III, MG Flanner, ML Goulden, JW Harden, PG Hess, Y Jin, H Liu, MC Mack, JC Neff, G Pfister, **EAG Schuur** et al. 2006. The impact of boreal forest fires on climate. *Science* 314:1130-1132.
10. Mack, MC, **EAG Schuur**, MS Bret-Harte, GR Shaver, and FS Chapin III. 2004. Ecosystem carbon storage in arctic tundra reduced by long-term nutrient fertilization. *Nature* 431: 440-443.

### **Synergistic Activities**

1. **Lead Organizer and/or Instructor:** Permafrost Carbon Network. ([www.permafrostcarbon.org](http://www.permafrostcarbon.org)). This is an international network with the objective to

synthesize and link existing research about permafrost carbon and climate in a format that can be assimilated by biospheric and climate models, and for future assessments of the IPCC. Permafrost Carbon Network All-Scientist workshop, June 1-3, 2011 Seattle, WA. Permafrost Carbon Network Annual workshop Dec 2011-2016, San Francisco, CA; Permafrost Carbon Network lead/co-lead workshop May 2012-2017, various locations. Development and teaching of a short course to expand the application of radiocarbon measurements. Radiocarbon in Ecology and Earth System Science, taught July 2004-2016 in collaboration with Dr. Susan Trumbore. University of California, Irvine/Max Planck Institute for Biogeochemistry, Jena Germany.

2. **Policy maker, Media, and Public Outreach:** Meetings with congressional representative's offices as part of Leopold Leadership Program, 2011, Washington DC; Climate Science Day 2013, Washington DC; Arctic Alerts 2016, Washington DC. Interviews on global change in high latitude ecosystems for: Public Radio, LA Times, Reuters, Science News, Bioscience, Newsweek, BBC, Associated Press, Nature News, NY Times, Economist, others. Publication of three National Park Fact Sheets: "Permafrost Thaw and Carbon Balance", "How are Permafrost Landscapes Changing", "Permafrost Thaw and Carbon Balance 2" distributed to the public at Denali Park, Alaska. Co-author on Arctic Council of Ministers' Cryosphere project SWIPA (Snow, Water, Ice, Permafrost in the Arctic) 2009 and 2017; Co-author on United Nations Environmental Programme project Policy Implications of Thawing Permafrost, 2012; Contributing author for Chapter 6: Carbon and Biogeochemical Cycles. Intergovernmental Panel on Climate Change (IPCC) Working Group I Fifth Assessment Report. Lead author: Arctic and Boreal Chapter, Second State of the Carbon Cycle, 2017. Scoping Meeting participant for IPCC Special Report on Cryosphere and Oceans, 2016.
3. **Review Panels & Workshops:** NSF GEO Panel 2016; NSF GEO Panel 2015; Joint Agency NASA/DOE Panel, 2013; NSF DEB Panel 2012; NASA Roses Panel, 2010; EPA Panel, 2005; North American Carbon Program (NACP) May, 2003, Washington DC; Furthering Joint US-UK Arctic Systems Research. Cambridge, UK. Oct 2012; DOE Characterizing Soil Carbon in Permafrost Regions and Its Vulnerability to Climate Change, Argonne National Lab, Chicago, IL 2011; NASA Vulnerability and Resilience of Subarctic and Arctic Landscapes Scoping Study. Fairbanks, AK, 2009; Washington DC; DOE Arctic Deep Warming Experiment Workshop, Salt Lake, UT, 2009; LTER Disappearing Cryosphere, 2009, Marine Biological Laboratory, Woods Hole, MA; Carbon Respired by Terrestrial Ecosystems Workshop. Durham, NH, 2007; NCEAS Working Group on the Vulnerability of Carbon in Permafrost, 2006.
4. **Grant and Manuscript Editor & Reviewer:** for multiple US and international agencies, and journals. Subject editor for American Geophysical Union journal *Biogeosciences*. 2011-2014. Lead guest editor for special issue of *Environmental Research Letters*, 2012-3.
5. **Steering Group Member:** Leopold Leadership Program Advisory Board, 2014-current; US Carbon Cycle Science Program, 2010-2016; DOE NGEE-Arctic, 2010-2015. DOE SPRUCE Project, 2016-current; AGU Soils and Critical Zone Processes, 2011-2014; Centre for Permafrost Dynamics in Greenland (CENPERM), 2011-current; Tunnel 2011: Permafrost Research and Engineering Center 2009-2011; Taiga Zone (D19) NEON, 2009-current. Senior Scientist, Long Term Ecological Research Program, Bonanza Creek (BNZ) Site. Fairbanks, AK. 2004-current.