

Tiffany A. Gatesman
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PROFESSIONAL PREPARATION

2014 – 2017 Master of Science – University of Alaska Fairbanks (UAF)
 Environmental Chemistry
 Emphasis: Hydrology and Glacier Science

2003 - 2009 Bachelor of Science - University of Wisconsin-Sevens Point (UWSP)
 Major: Water Resource Management
 Minor: Soil Science
 Emphasis: Wetland Science

PROFESSIONAL APPOINTMENTS

Aug. 2012 – May 2014 EARTH SCIENCE & BIOLOGY HIGH SCHOOL TEACHER
 East Grand School District-Middle Park High, Granby, CO

Jan. 2006 – May 2009 WATER CHEMIST TECHNICIAN
 Water and Environmental Analysis Lab, Stevens Point, WI

June 2008 – Oct. 2008 EROSION CONTROL FIELD SPECIALIST
 Dane County Land Conservation Division, Madison, WI

June 2007 – Sept. 2007 URBAN STORMWATER RUNOFF FIELD SURVEY TECHNICIAN
 Center for Watershed Science and Education, Stevens Point, WI

June 2006 – Sept. 2006 FISHERIES BIOLOGIST FIELD INTERN
 U.S. Forest Service, Humbolt-Toiyabe National Forest, Elko, NV

June 2004 – Sept. 2004 VEGETATION MANAGEMENT FIELD TECHNICIAN
 US Fish and Wildlife Service, Leopold WMD, Portage, WI

RESEARCH

Gatesman, T.A., Douglas, T., Liljedahl, A., and Trainor, T. (2017). Geochemical hydrograph separation of a sub-arctic glacial watershed, Interior Alaska. M.S. research, Department of Chemistry & Biochemistry, UAF, Fairbanks, AK.

Short (Gatesman), T., Werner, L., and Clancy, K. (2009). Impacts of urban runoff on bioretention basins: a comparison of vegetation effects on surplus water in soil profile. Undergraduate research, College of Natural Resources, UWSP, Stevens Point, WI.

Short (Gatesman), T., and Kermath, B. (2006), Land use survey of alpine river, Cuchumatanes Mountain Range, Guatemala. Student Ambassador watershed management report for Global Environmental Management, UWSP, Stevens Point, WI.

VOLUNTEER HISTORY

April 2016 CONFERENCE TECHNICAL PROGRAM COMMITTEE
 National American Water Resource Association

11 March 2015 SCIENCE FAIR JUDGE
 Barnette Magnet School, Fairbanks, AK

September 2010 PERIPHYTON SAMPLING VOLUNTEER
 US Geological Survey, Grand County, CO

March 2009 HIGH SCHOOL WATER RESOURCE MANAGEMENT EDUCATION
 UWSP, Stevens Point, WI

January 2009 EROSION CONTROL SPECIALIST
 Dane County Land Conservation Division, Madison, WI

August 2008 FISHERIES BIOLOGIST VOLUNTEER
 US Forest Service, Tongass National Forest, Sitka, AK

EXPERIENCE IN INSTRUMENTS, SKILLS, SOFTWARE, AND TECHNIQUES

Acoustic Doppler Current Profiler, Teledyne TD Instruments (Poway, CA)
Agilent 7500ce Inductively coupled plasma mass spectrometry (ICP-MS) with Enhanced ORT Technology (Agilent Technologies, Santa Clara, CA).
ArcGIS/ArcMap (ESRI, Redlands, CA)
Asymmetric Flow Field-Flow Fractionation instrument (FFF - Postnova Analytics, Salt Lake City, Utah).
Athena, SIXPack and MicroToolKit.
Dionex ICS-3000 ion chromatograph with an AS-19 anion column and CS-12 cation column (Dionex Corporation Sunnyvale, California).
ECH2O Utility Moisture Probes and Soil Pressure Extractor (Decagon Devices, Pullman, WA)
HOBO Data Loggers. Onset Computer Corporation. (Bourne, MA)
Incident Command System, FEMA, 2004 & 2008
Lachat Instruments with Omnion software (Loveland, CO)
Mini-Diver pressure transducer with integrated logger. Van Essen Instruments. (Mukilteo, WA)
Picarro L2120-i Analyzer Wavelength-Scanned Cavity Ringdown Spectroscopy (Sunnyvale, CA).
Synchrotron-based x-ray absorption & fluorescence spectroscopy (EXAFS and XANES, San Francisco, CA)
Teledyne ISCO 3700 portable automatic water sampler (Teledyne ISCO, Lincoln, NE)
TR55 Urban Hydrology Model for Small Watersheds (HydroCAD Stormwater Modeling, Choccorua, NA)
WinRiver II, Teledyne TD (Poway, CA)
WinSLAMM Stormwater Model (PV & Associates, LLC)
Wildland Firefighting (S-190, S-130, L-180), National Wildfire Coordinating Group, 2004 & 2008

SYNERGISTIC ACTIVITIES

Conference Technical Program Committee, American Water Resource Association, National 2016 Spring Specialty Conference. Anchorage, AK. April 25-27, 2016.
President, American Water Resource Association, UWSP Student Chapter, 2008-2009
Secretary, American Water Resource Association, UWSP Student Chapter, 2007-2008

PROFESSIONAL ORGANIZATION MEMBERSHIPS

American Geophysical Union, 2008, 2014, 2015, 2016
American Water Resource Association, 2007, 2008, 2009, 2014, 2015, 2016, 2017

AWARDS & SCHOLARSHIPS

National AWRA. Outstanding Student Oral Presentation. American Water Resource Association National Spring Specialty Conference. 27 April 2016, Anchorage, AK.
UAF Environmental Chemistry Symposium. Outstanding Graduate Presentation. Fairbanks, AK. April 22, 2016.
AWRA AK Chapter. Student Travel Award to attend and present at AWRA National Spring Specialty Conference, Anchorage, AK. April 25-27, 2016.
EPSCoR Travel Award: Travel to AWRA Spring Specialty Conference to present Hydrograph separation of a sub-arctic glacial watershed, Interior Alaska, oral presentation. Anchorage, AK. April 25-27, 2016.
CNSM Student Travel Grant: Travel to AWRA Annual Water Resource Conference to present Hydrograph separation of a sub-arctic glacial watershed, Interior Alaska, oral presentation. Denver, CO. November 16-19 2015.
AWRA AK Chapter. Outstanding Poster Presentation of the American Water Resources Association Alaska Chapter Spring Conference and Workshop. Fairbanks, AK. 13 May 2015.
IARC Summer School Scholarship. "Arctic in a warming climate: Connection to vegetation, permafrost and hydrology". University of Alaska, Fairbanks, Alaska and Toolik Lake field base, Alaska. May 26 – June 9 2015.
Special Research Student Scholarship: Enrollment and travel to University of Hokkaido EES Laboratory Short Course in Stable Isotopes, Sapporo, Japan. 14-20 December 2014.

PUBLICATIONS

Knically, J., A. Fedotova, T. Gatesman, P. Wilson, T. Rowley, and R. Granados-Aguilar, M. R. Lilly, AWRA Spring 2016 Specialty Conference “Water – Energy – Environment”. PreConference Field Trip: Anchorage to Chena Hot Springs Field Guide. Texas A&M University. College Station, Texas.

OCCURENCES OF APPLIED RESEARCH BENEFITING LOCAL COMMUNITIES

Gatesman, T.A., Gatesman, T.A., Douglas, T., Liljedahl, A., Trainor, T., Gaedeke, A, Orr, A.. (2016).

Hydrograph separation of a sub-arctic glacial watershed, Interior Alaska & Jarvis Creek Watershed Project, what we do. Poster presentation at the Delta Farm Forum. 20 February 2016. Delta Junction, AK.

Gatesman, T.A., Jacobs, N., Debolskiy, M., Bailey, J., Barnard, C., Douglas, T., Gusmeroli, A., Hock, R., Liljedahl, A., Wagner, A., (2015). What role do glaciers play in terrestrial subarctic hydrology? Poster presentation at the Delta Farm Forum. 21 February 2015. Delta Junction, AK.

Boor, Z, Gatesman, T.A., Morris, K., Hershfelt, S. Bug Week: Indoor and Outdoor Water Resource and Invertebrate Education. Educational Session. East Grand High School. 2012 & 2013. Granby, CO.

Alba, V., Short (Gatesman), T. Ground Water Model-University of Wisconsin Stevens Point. Exhibit at National AWRA Conference. November 2007.

Short (Gatesman), T. (2007), Bioretention basins: What are they and how do they benefit the environment. Oral presentation at Midwest Renewable Energy Fair. July 2007. Stevens Point, WI.

Short (Gatesman), T. (2007), Bioretention basins: background and construction. Oral presentation at Poynette Garden Club. March 2007. Poynette, WI.

PRESENTATIONS

Gatesman, T.A., Douglas, T., Liljedahl, A., Trainor, T., Gaedeke, A. (2015). Hydrograph separation of a sub-arctic glacial watershed, Interior Alaska. Oral presentation at American Water Resource Association National Spring Specialty Conference. 27 April 2016, Anchorage, AK.

Gatesman, T.A., Douglas, T., Liljedahl, A., Trainor, T., Gaedeke, A. (2016). Hydrograph separation of a sub-arctic glacial watershed, Interior Alaska. Oral presentation at UAF Environmental Chemistry Symposium. 122 April 2016, Fairbanks, AK.

Gatesman, T.A., Douglas, T., Liljedahl, A., Trainor, T., Gaedeke, A. (2015). Hydrograph separation of a sub-arctic glacial watershed, Interior Alaska. Poster presentation at American Geophysical Union Annual Fall Meeting. 15 December 2015, San Francisco, CA.

Gatesman, T.A., Douglas, T., Liljedahl, A., Trainor, T., Gaedeke, A. (2015). Hydrograph separation of a sub-arctic glacial watershed, Interior Alaska. Oral presentation at the American Water Resource Association Annual Water Resource Conference. 17 November 2015, Denver, CO.

Gatesman, T.A., Douglas, T., Liljedahl, A., Trainor, T., Gaedeke, A. (2015). Hydrograph separation of a sub-arctic glacial watershed, Interior Alaska. Oral presentation at the Water and Environmental Research Center Symposium. 16 October 2015, Fairbanks, AK

Gatesman, T.A., Douglas, T., Liljedahl, A., Trainor, T. (2015). Hydrograph partitioning of a sub-arctic glacial watershed, Interior Alaska: A geochemical analysis. Poster presentation at the American Water Resources Association Alaska Chapter Spring Conference and Workshop. 13 May 2015, Fairbanks, AK.

Gatesman, T.A., Liljedahl, A., Douglas, T., Trainor, T. (2015). Hydrograph separation of a sub-arctic glacial watershed using stable water isotope variation. Oral presentation at the Midnight Sun Science Symposium. 27 March 2015, Fairbanks, AK.

Gatesman, T.A., Liljedahl, A., Douglas, T., Trainor, T. (2015). Hydrograph separation of a sub-arctic glacial watershed using stable water isotope variation. Oral presentation at the Department of Chemistry and Biochemistry, UAF Seminar. 17 February 2015, Fairbanks, AK.

- Gatesman, T.A., Liljedahl, A., Douglas, T., Trainor, T. (2015). Hydrograph separation of a sub-arctic glacial watershed using stable water isotope variation. Oral presentation at the Water and Environmental Research Center Symposium. 6 February 2015, Fairbanks, AK.
- Gatesman, T.A., Liljedahl, A., Douglas, T., Trainor, T. (2014). Hydrograph separation of a sub-arctic glacial watershed using stable water isotope variation. Oral presentation at the Northwest Glaciologists' Meeting. 17 October 2014, Fairbanks, AK.
- Short (Gatesman), T., Werner, L., and Clancy, K. (2009), Impacts of urban runoff on bioretention basins: a comparison of vegetation effects on surplus water in soil profile. Poster presentation at American Water Resource Association, Wisconsin State Conference. March 2009, Stevens Point, WI.
- Short (Gatesman), T., Werner, L., and Clancy, K. (2009), Impacts of urban runoff on bioretention basins: a comparison of vegetation effects on surplus water in soil profile. Oral presentation UWSP Research Symposium. February 2009, Stevens Point, WI.
- Short (Gatesman), T., Werner, L., and Clancy, K. (2008), Impacts of urban runoff on bioretention basins: a comparison of vegetation effects on surplus water in soil profile. Poster presentation at American Geophysical Union. December 2008, San Francisco, CA.
- Short (Gatesman), T., Werner, L., and Clancy, K. (2008), Impacts of urban runoff on bioretention basins: a comparison of vegetation effects on surplus water in soil profile. Oral presentation at American Water Resource Association, National Conference. November 2008, New Orleans, LA.
- Short (Gatesman), T., Werner, L., and Clancy, K. (2009), Impacts of urban runoff on bioretention basins: a comparison of vegetation effects on surplus water in soil profile. Oral presentation at American Water Resource Association, National Conference. November 2008, New Orleans, LA.
- Short (Gatesman), T., Werner, L., and Clancy, K. (2008), Impacts of urban runoff on bioretention basins: a comparison of vegetation effects on surplus water in soil profile. Poster presentation at American Water Resource Association, Wisconsin State Conference. March 2008, Stevens Point, WI.
- Short (Gatesman), T., Werner, L., and Clancy, K. (2008), Impacts of urban runoff on bioretention basins: a comparison of vegetation effects on surplus water in soil profile. Poster presentation UWSP Research Symposium. February 2008, Stevens Point, WI.