

Yi (Abby) Wang

Research Interests: Hydrometeorology, Ecohydrology, Land-Atmosphere Coupling

Education

PhD in University of Waterloo, Canada

Major: Geography (Water)

GPA: 91.5/100

Jan. 2019 – Present

Supervisor: Dr. Richard Petrone

MSc in University of British Columbia, Okanagan, Canada

Major: Environmental Science

GPA: 90.5/100

Sep. 2015 – Nov. 2018

Supervisor: Dr. Adam Wei

BSc in Xiamen University, China

Major: Environmental Science

GPA: 3.71/4.00

Sep. 2011 – Jul. 2015

Teaching Experiences

Fall semester

2023-2024

University of Waterloo

Teaching assistant for GEMCC 601 Climate Change: Physical Science

Winter semester

2022-2023

University of Waterloo

Teaching assistant for GEOG 102 Global Environmental Systems: Processes and Change

Spring semester

2021-2022

University of Waterloo

Instructor for GEOG 207 Climate Change Fundamentals

Winter semester

2021-2022

University of Waterloo

Teaching assistant for GEOG 207 Climate Change Fundamentals

Fall semester

2018-2019

Xinhua JingCheng Inc. Longyan, Fujian, China

Full-time high school Physics and English tutor

Winter semester

2017-2018

University of British Columbia, Okanagan

Teaching assistant for EESC 313 *Management of Forested Watersheds* and
EESC/GEOG 341 *Quaternary Paleoecology and Environmental Change*

Fall semester

2017-2018

University of British Columbia, Okanagan

Teaching assistant for EESC 301 / BIOL 307 *Limnology* labs

March 15 and 17, 2017

University of British Columbia, Okanagan

Gave two lectures on Climate Change and Forest Carbon at the course EESC 213
Introductory Forest Science and Management

March 08, 2017

University of British Columbia, Okanagan

Guest Speaker Presentation on Forest Carbon and Water Coupling at the course EESC 413
Analytical Methods in Hydrology

June 21-27, 2012

Changting Town, Longyang, Fujian Province, China

Volunteer teaching on environmental conservation in the San Zhou Town Central Primary
School, Fujian, China

Publication

Peer-reviewed journals:

Yi Wang, Richard Petrone, Brandon Van Huizen. The dependence of evaporative efficiency of vegetated surfaces on ground cover mass fractions in vegetated soils in mesic ecosystems. **Hydrological Processes**. Accepted in November 2023.

Yi Wang, Richard Petrone. Effects of microforms on the evaporation of peat-bryophyte-litter column in a montane peatland in Canadian Rocky Mountain (2023). **Ecohydrology**. doi.org/10.1002/eco.2516.

Yi Wang, Antonio del Campo, Xiaohua Wei, Rita Winkler, Wanyi Liu, Qiang Li. Responses of forest carbon and water coupling to thinning treatments from leaf to stand scales in a young montane pine forest. **Carbon Balance and Management**. 15, 24 (2020). doi: 10.1186/s13021-020-00159-y

Yi Wang, Xiaohua Wei, Antonio del Campo, Rita Winkler, Jianping Wu, Qiang Li, Wanyi Liu. Juvenile thinning can effectively mitigate the effects of drought on tree growth and water consumption in a young *Pinus contorta* stand in the interior of British Columbia, Canada (2019). **Forest Ecology and Management**. doi: 10.1016/j.foreco.2019.117667.

Qiang Li, Xiaohua Wei, Mingfang Zhang, Wenfei Liu, Krysta Giles-Hansen; **Yi Wang**. The cumulative effects of forest disturbance and climate variability on flow components in a large watershed in British Columbia, Canada (2018), **Journal of Hydrology**. doi: 10.1016/j.jhydrol.2017.12.056.

Yihui Zhang, Hanyu Meng, **Yi Wang**, and Qiang He. Herbivory enhances the resistance of mangrove forest to *Spartina alterniflora* invasion in southern China (2018). **Ecology**. doi: 10.1002/ecy.2233.

Antonio Del Campo, Antonio, Xiaohua Wei, **Yi Wang** et al. Managing Forests for Water and Enhanced Climate Resilience. in Jones et al (2018). Summary of Forests and Water workshop, November 1-2 2016, Kelowna. **Confluence: Journal of Watershed Science and Management**. doi: 10.22230/jwsm.2018v2n1a10.

Xiaohua Wei; Qiang Li; Mingfang Zhang; Krysta Giles-Hansen, Wenfei Liu, Houbao Fan; **Yi Wang**, Guoyi Zhou; Shilong Piao, Shirong Liu. Vegetation cover – another dominant factor in determining global water resources in forested regions (2017). **Global Change Biology**. doi: 10.1111/gcb.13983.

Qiang Li, Xiaohua Wei, Mingfang Zhang, Wenfei Liu, Houbao Fan, Guoyi Zhou, Krysta Giles-Hansen, Shirong Liu, **Yi Wang**. (2017) Forest cover change and water yield in large forested watersheds: A global synthetic assessment, **Ecohydrology**. doi: 10.1002/eco.1838.

Book Chapter:

Contributing author of the Chapter 4: Forest Landscape Hydrology in a ‘New Normal’ Era of Climate and Land Use Change in the book Forest and Water on a Changing Planet: Vulnerability, Adaptation and Governance Opportunities. IUFRO World Series Volume 38. Vienna. 192 p. ISBN 978-3-902762-95-5. ISSN 1016-3263

Technical Report:

Contributing author to Creed, Irena F., and M. van Noordwijk. Forest and Water on a Changing Planet: Vulnerability, Adaptation and Governance Opportunities: A Global Assessment Report. No. 38. International Union of Forest Research Organizations (IUFRO), 2018.

Conferences:

Yi Wang, Richard Petrone, Brandon Van Huizen. The dependence of evaporative efficiency of vegetated surfaces on ground cover weight fractions in mesic ecosystems. **Global Water Futures 2023**. Saskatoon. May 15 to 17, 2023. (Poster presentation)

Yi Wang, Richard Petrone, Brandon Van Huizen. The dependence of evaporative efficiency of vegetated surfaces on ground cover weight fractions in mesic ecosystems. **Canadian Geophysical Union Conference 2023**. Banff. May 8 to 10, 2023. (Oral presentation)

Yi Wang and Richard Petrone. How do vegetation, litter, bryophyte, and substrate soil affect evaporation in high-elevation wetlands? Evidence from various types of wetlands with contrast geographical settings in Canadian Rocky Mountain. **Global Water Futures 2022**. May 16 to 18, 2022. (Online oral presentation)

Yi Wang and Richard Petrone. Effects of microforms on the evaporation of peat-bryophyte-litter column in a montane peatland in Canadian Rocky Mountain. **Global Water Futures 2022**. May 16 to 18, 2022. (Online poster presentation)

Yi Wang and Richard. M. Petrone. Effects of microforms on the evaporation of peat-bryophyte-litter column in a montane peatland in Canadian Rocky Mountain. **Canadian Geophysical Union Student Conference 2022**. March 45, online. (Poster presentation)

Yi Wang, Mazda Kompanizare, Adam Green and Richard. M. Petrone. The relative importance of biophysical and meteorological effects on growing season surface available energy partitioning at high-altitude wetlands in Canadian Rocky Mountain. **Canadian Geophysical Union summer session 2021**. (Online oral presentation)

Yi Wang, Mazda Kompanizare, Adam Green and Richard. M. Petrone. The relative importance of biophysical and meteorological effects on growing season surface available energy partitioning at high-altitude wetlands in Canadian Rocky Mountain. **Global Water Futures 2021**, May 17-19, online. (Poster presentation)

Adam Wei, Yi Wang, Antonio del Campo, Qiang Li, Krysta Giles-Hansen, Wanyi Liu. thinning can mediate the negatively hydrological effects of drought: insight from a young lodgepole pine forest, British Columbia, Canada. **5th International Conference on Forests and Water 2018**, November 5-9, 2018, Valdivia, Chile. (Abstract ID:1030)

Yi Wang, Adam Wei, Antonio del Campo, Qiang Li and Krysta Giles-Hansen. Responses of forest carbon and water coupling to thinning treatments at both the leaf and individual tree levels in a 16-year-old natural *Pinus Contorta* stand. **AGU Fall meeting 2017**, December 11-15, 2017, New Orleans, USA. (Abstract ID: 297130)

Antonio del Campo, Adam Wei, **Yi Wang**, María Gonzalez-Sanchis, Alberto García-Prats. Managing Forests for Water and Enhanced Climate Resilience. **Forests and Water Workshop**, November 1-2, 2016, Kelowna B.C., Canada.

Hanyu Meng, Yiyun Wang, **Yi Wang**, Huiping Zhang, Dan Lin, Yihui Zhang. Rodents play an important role during *Spartina alterniflora* invading the mangrove ecosystem. **Sixth National Mangrove Forests Seminar**. Nov. 16–18, 2013, Haikou, China. (In Chinese).

Honor and Award

2023	Global Water Futures Young Professionals (GWF-YP) Travel Grant (\$500), Global Water Futures, Canada
2022 to 2024	Environment Graduate Experience Award (\$1,250 per term), University of Waterloo
2019 to 2024	International Doctoral Student Award (~\$4,260 per term), University of Waterloo
2017	University Graduate Fellowship (\$3,000), University of British Columbia, Okanagan
2016	University Graduate Fellowship (\$6,000), University of British Columbia, Okanagan University of BC Okanagan Graduate Fellowship (\$3,000), University of British Columbia, Okanagan
2015	Graduate Deans Entrance Scholarship (\$5,000), University of British Columbia, Okanagan Mitacs Globalink Graduate Fellowship Award (\$10,000), Mitacs Canada
2014	China National Scholarship (CNY 8,000, top 0.1%), Ministry of Education of the People's Republic of China
2013	China National Scholarship (CNY 8,000, top 0.1%), Ministry of Education of the People's Republic of China Merit Student Award, Xiamen University Lin Peng Ecology Scholarship (CNY 2,500), Xiamen University Excellent Award in 2 nd Environmental Protection Competition, Xiamen University
2012	First-class Scholarship for Outstanding Student (CNY 3,000), Xiamen University Merit Student Award, Xiamen University