URSULA JONGEBLOED

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Curriculum Vitae last updated January 9, 2024

EDUCATION

Exp. 2025	PhD – Atmospheric Sciences, *University of Washington, Seattle, WA*
2019–2022	MS – Atmospheric Sciences, *University of Washington, Seattle, WA* *Thesis: Preindustrial volcanic sulfate aerosol is underestimated in the Arctic: implications for radiative forcing*
2014–2018	BA – Earth Sciences (High Honors), Chemistry, *Dartmouth College, Hanover, NH* *Thesis: Long-term Trends and Sources of Atmospheric Pollution in the North Pacific Region*

PROFESSIONAL EXPERIENCE

2019–pres.	PhD student and researcher, *University of Washington, Seattle, WA* Investigating sources and chemistry of Arctic sulfate aerosols using ice core sulfur isotope measurements and GEOS-Chem chemical transport model
2018–2019	Research Assistant, ICF Consulting Inc., Washington, D.C. Perform research, analysis, and writing to support a variety of projects for the EPA's Stratospheric Protection Division.
2016–2018	Undergraduate researcher, *Dartmouth College, Hanover, NH* Completed a senior thesis that was recognized with high honors studying atmospheric pollution in the North Pacific region. Worked in ice-core laboratory analyzing ice cores from Antarctica, Greenland, and Alaska using ion chromatography and mass spectrometry (ICP-MS).
2015–2016	Undergraduate researcher, *U. S. Geological Survey, Menlo Park, CA* Contributed to a 21-year study on selenium pollution in the San Francisco Bay Estuary. Collected *Potamocorbula amurensis* and analyzed selenium concentrations using an ICP-MS.

PUBLICATIONS

Publications in preparation, submitted, in review, or in press

2024 *in prep*	**Jongebloed, U. A.,** et al. West Antarctic volcanoes explain the spatial pattern of Antarctic sulfur isotopes. *In prep.*
2024 *in prep*	**Jongebloed, U. A.**, et al. Modeling changes to DMS oxidation chemistry over the industrial era. *In prep.*
2024 *submitted*	Chalif, J. I., **Jongebloed, U. A.,** Osterberg, E. C., Koffman, B. G., Alexander, A., Winski, et al. (*submitted*). Pollution drives enigmatic decline in subarctic biogenic sulfur. *Submitted to Nature.*
2024 *accepted*	Chan, J. K., Parasurama, S., Atlas, R., **Jongebloed, U. A.,** Alexander, B., Langenhan, J. M., et al. (2023). Olfaction in the Anthropocene: NO_3 negatively impacts floral scent and nocturnal pollination. *Accepted to Science*.

Published papers

2023	**Jongebloed, U. A.,** Schauer, A., Cole-Dai, J., Larrick, C., Salimi, S., Edouard, S., Geng, L., Alexander, B. (2023). Industrial-era decline in Arctic MSA is offset by increased biogenic sulfate

aerosol. *Proceedings of the National Academy of Sciences, 120*(47). https://doi.org/10.1073/pnas.2307587120

2023 Moon, A., **Jongebloed, U.,** Dingilian, K. K., Schauer, A. J., Chan, Y.-C., Cesler-Maloney, M., et al. (2023). Primary Sulfate Is the Dominant Source of Particulate Sulfate during winter in Fairbanks, Alaska. *ACS ES&T Air.* https://doi.org/10.1021/acsestair.3c00023

2023 **Jongebloed, U. A.,** Schauer, A. J., Hattori, S., Cole-Dai, J., Larrick, C. D., Salimi, S., et al. (2023). Sulfur isotopes quantify the impact of anthropogenic activities on industrial-era Arctic sulfate in a Greenland ice core. *Environmental Research Letters*. https://doi.org/10.1088/1748-9326/acdc3d.

2023 **Jongebloed, U. A.,** Schauer, A. J., Cole-Dai, J., Larrick, C. G., Wood, R., Fischer, T. P., et al. (2023). Underestimated Passive Volcanic Sulfur Degassing Implies Overestimated Anthropogenic Aerosol Forcing. *Geophysical Research Letters*, 50(1). https://doi.org/10.1029/2022GL102061.

2022 *Review paper:* Banerjee, A., Riddell-Young, B. E., & **Jongebloed, U. A.** (2022). Ice-core records of atmospheric composition and chemistry. *Past Global Changes Magazine*, 30(2), 104–105. https://doi.org/10.22498/pages.30.2.104.

PRESENTATIONS

Presentations as presenter

2023 **Jongebloed, U. A.,** Alexander, B. (2023). Industrial-era decline in Arctic MSA is offset by increased biogenic sulfate aerosol. American Geophysical Union Fall Meeting, Chicago, IL (poster).

2023 **Jongebloed, U. A.,** Schauer, A. J., Cole-Dai, J., Larrick, C. G., Salimi, S., Edouard, S. R., Geng, L., Alexander, B. (2023). Industrial-era decline in Arctic MSA is offset by increased biogenic sulfate aerosol. U.S. Ice Core Open Science Meeting, Seattle, WA (talk).

2022 **Jongebloed, U. A.,** Schauer, A. J., Cole-Dai, J., Larrick, C. G., Salimi, S., Edouard, S. R., Geng, L., Alexander, B. (2022). Industrial-era decline in Arctic MSA is offset by increased biogenic sulfate aerosol. American Geophysical Union Fall Meeting, Chicago, IL (poster).

2022 **Jongebloed, U. A.,** Schauer, A. J., Cole-Dai, J., Larrick, C. G., Salimi, S., Edouard, S. R., Geng, L., Alexander, B. (2022). Industrial-era decline in Arctic MSA is offset by increased biogenic sulfate aerosol. International Partnerships in Ice Core Sciences, Crans-Montana, Switzerland (poster).

2022 **Jongebloed, U. A.,** Schauer, A. J., Cole-Dai, J., Larrick, C. G., Fischer, T. B., Carn, S. A., Wood, R., Salimi, S., Edouard, S. R., Alexander, B. (2022). Underestimated passive volcanic degassing implies overestimated aerosol forcing. Ice Core Open Science Meeting, La Jolla, CA (talk).

2022 **Jongebloed, U. A.,** Schauer, A. J., Cole-Dai, J., Larrick, C. G., Fischer, T. B., Carn, S. A., Wood, R., Salimi, S., Edouard, S. R., Alexander, B. (2022). Underestimated passive volcanic degassing implies overestimated aerosol forcing. International GEOS-Chem Conference 10, St. Louis, MO (poster).

2021 **Jongebloed, U. A.,** Schauer, A. J., Cole-Dai, J., Larrick, C. G., Fischer, T. B., Carn, S., Wood, R., Salimi, S., Edouard, S. R., Alexander, B. (2021). Preindustrial volcanic emissions are underestimated in climate models: what does this mean for Arctic climate? American Geophysical Union Fall Meeting, New Orleans, LA (talk).

2021 **Jongebloed, U. A.,** Schauer, A. J., Salimi, S., Edouard, S. R., Larrick, C. G., Cole-Dai, J., Alexander, B. (2021). Ice Core Record Indicates Arctic Volcanic Sulfate Aerosols Are Underestimated by Emissions Inventories. Air Pollution in the Arctic: Climate, Environment and Societies (PACES), *virtual*. (talk).

2017 **Jongebloed, U. A.,** Osterberg, E. C., Kreutz, K., Campbell, S., Wake, C., Saylor, P., Winski, D., Handley, M., Ferris, D. (2017). Elevational and Spatial Gradients of Atmospheric Metal Pollution in the North Pacific. American Geophysical Union Fall Meeting, New Orleans, LA (poster).

2016 **Jongebloed, U. A.**, Stewart, A.R., Kleckner, A. (2016). Elevated selenium levels follow unprecedented drought in San Francisco Estuary. Bay Delta Science Conference, Sacramento, CA (poster).

Other presentations

2022 Moon, A. R., **Jongebloed, U. A.,** Schauer, A. J., Dingilian, K. K., Weber, R. J., Mao, J., et al. Sulfur and Oxygen Isotopes Show Primary Sulfate is the Dominant Source of Particulate Sulfate During Winter in Fairbanks, AK. American Geophysical Union Fall Meeting, Chicago, IL (poster).

2021 Wedum, A., Chan, Y. C., Zhai, S., **Jongebloed, U. A.**, Jaegle, L., Cole-Dai, J., et al. Model interpretation of the long-term variability of ice-core perchlorate. American Geophysical Union Fall Meeting, New Orleans, LA (poster).

2021 Cole-Dai, J., Larrick, C. G., **Jongebloed, U. A.,** Alexander, B. Ice core evidence of reduced marine emissions of dimethylsulfide precursor of aerosols during the Industrial era. American Geophysical Union Fall Meeting, New Orleans, LA (poster).

2018 Osterberg, E. C., **Jongebloed, U. A.,** Winski, D., Ferris, D. G., Handley, M., Kreutz, K. J., Wake, C. P., Birkel, S. D., Thundercloud, Z. R. The North Pacific ice core record of atmospheric pollution. American Geophysical Union Fall Meeting, Washington, D. C. (talk).

TEACHING

2023 Instructor, *ATM S 220: Exploring the Atmospheric Sciences*
Designed course including organizing eight guest lectures. Created and graded quizzes and assignments for 72 students.

2023 Guest Lecturer, *ATM S 220: Exploring the Atmospheric Sciences*

2021-2022 Lead Teaching Assistant, *UW Atmospheric Sciences Department*
Served as main resource for graduate student TAs for the full academic year. Transformed new TA orientation to better meet TA needs and received strong positive feedback.

2021 Teaching Assistant, *ATM S 358: Fundamentals of Atmospheric Chemistry*
Held office hours and weekly homework review sessions. Received strong positive reviews from students for explaining concepts and encouraging them in the course and beyond.

2021 Teaching Assistant, *ATM S 111: Global Warming: Understanding the Issues*
Created and graded homework assignments and exams, ran Quiz Sections, and held office hours. Received exceptional student reviews for enthusiasm and clarity of explanations.

OUTREACH & LEADERSHIP

2022–2024 Student organizer, *Diversity and Inclusion Group, UW Atmospheric Sciences Department*
Participated in grass-roots group of students working to increase inclusivity and equity in the UW Atmospheric Sciences Department. Led initiative to create peer-to-peer mentoring groups, which has been extremely successful and helped students feel a sense of community in graduate school.

2022–2024 Organizer for 2023 & 2024 Ice Core Early Career Researchers Workshops (ICECReW).
Served as the lead graduate student organizer of ICECReW, a workshop with over thirty early career researcher participants and six panelists. The aims of the workshops were 1) to develop proposal writing skills and job application materials and 2) contribute to increasing inclusivity and reducing barriers to entering ice core science.

2023 Interviews with New Scientist, UW News, UW Daily, NPR's Soundside
After publication of Jongebloed et al. (2023) *GRL*, I was interviewed by journalists for *New Scientist, UW News, UW Daily*, and NPR's *Soundside*. These interviews resulted in multiple news articles: NPR's Soundside Podcast (minutes 5:39 to 16:39), New Scientist, UW News, among others. I was also interviewed by UW News for an article on Jongebloed et al. (2023) *PNAS*.

2021–2022 Graduate Student Representative, *UW Program on Climate Change (PCC)*
Represented graduate students to the PCC board.

2021–2022 PCC Graduate Student Steering Committee member, *UW Program on Climate Change (PCC)*
Organized graduate student speaking event on climate change research from a range of topics. Led recruitment to include diverse backgrounds on the committee.

2020–2022 Outreach Coordinator, *UW Atmos Outreach Program*
Organized and participated in presentations on climate change and other topics for local K12 schools and senior living communities. Facilitated partnership with GEARUP, an organization that partners with local high schools with low rates of college attendance.

2020 Committee Member, *UW Intersectional Sustainability Seed Grant Committee*
Awarded funds from budget of $25,000 for student-led proposals on projects related to racism and environmental justice in the greater Seattle Community

HONORS & AWARDS

2023 Wagner Memorial Award for Women in Atmospheric Sciences (2nd place)

2022 Certificate of Distinguished Service, *UW Atmospheric Sciences Department*

2019 Top Scholar Award, *UW College of the Environment*

2018 High Honors, *Earth Sciences Department, Dartmouth College*

2017 James O. Freedman Presidential Scholar, *Dartmouth College*