

Julia R. Andreasen (she/her)

IARC Postdoctoral Researcher and IASC Fellow
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EDUCATION

Ph.D. in Land and Atmospheric Science , University of Minnesota, Twin Cities	2025
Advisor: <i>Dr. Peter D. Neff</i> , Dissertation: <i>West Antarctic Ice Rises as Climate Archives: Exploration through Modeled Reanalysis, Airborne Ice-Penetrating Radar, and Antarctic Climate Classification</i> , Minor: <i>Geographic Information Science</i>	
Master of Research in Climate and Atmospheric Science , University of Leeds, UK	2019
Advisor: <i>Anna E. Hogg</i> , Dissertation: <i>The Analysis of Circum-Antarctic Calving Fronts- How have Antarctica's Major Ice Shelves Changed in the Past 10 Years?</i>	
Bachelor of Science in Atmospheric Sciences , The Ohio State University, Columbus	2018
Green Engineering Scholar, Minor: <i>Women's Gender and Sexuality Studies</i>	

RESEARCH APPOINTMENTS

International Arctic Science Committee (IASC)	2026 - Present
<i>Atmosphere Working Group Fellow</i>	
International Arctic Research Center, UAF , Fairbanks, AK	2025 - Present
<i>Postdoctoral Researcher</i>	
NASA Earth Science Division , Twin Cities, MN	2021 - 2025
<i>NASA FINESST Future Investigator and Research Fellow</i>	
University of Minnesota SWAC Department , Twin Cities, MN	2020 - 2021
<i>Graduate Research Assistant</i>	
NASA Goddard Space Flight Center , Greenbelt, MD	2020
<i>Experiential Learning Graduate Student and Summer Intern</i>	
University of Leeds School of Earth and Environment , Leeds, UK	2018 - 2019
<i>Centre for Polar Observation & Modeling Researcher</i>	
The Ohio State University School of Geography , Columbus, OH	2017 - 2018
<i>Climate Analytics Undergraduate Research Assistant</i>	
<i>Undergraduate Lead Lab Researcher in Charcoal Paleoclimatology</i>	
National Community Reinvestment Coalition (NCRC) , Washington, DC	2017
<i>Research and GIS Summer Intern</i>	
Environmental Protection Agency (EPA) , Washington, DC	2015
<i>Office of the Administrator; Summer Intern</i>	
University of Maryland, Nanotechnology Bing Research Group , College Park, MD	2013
<i>Research and Lab Assistant</i>	

FIELDWORK

Canisteo Peninsula, Antarctica , University of Minnesota	Dec - Feb 2024
<i>Lead Ice Core Handler</i> , Two months on the South Korean icebreaker RV ARAON and two weeks on Canisteo Peninsula to collect a 150 meter ice core and snow pit density samples for the international Ross-Amundsen Ice Core Array (RAICA) Project	
Mt. Waddington, British Columbia , University of Minnesota	2022 - 2023
<i>Lead Ice Core Handler</i> , Collected 219 meter ice core & spatial water stable isotopes	
<i>Graduate Field Assistant</i> , Collected 10 & 100-MHz radar surveys & water stable isotopes	
Isle of Arran, Scotland , University of Leeds	July 2022
<i>Graduate Field Participant</i> , Collected radiosondes and tephigram analyses, hill profiling, wind/ temperature/energy profiling, trajectory analysis, and risk assessments	
Great Basin National Park, Nevada , Byrd Polar Research Center and GBEX	Sep 2018
	July 2016/2017

Undergraduate GBEX Field Assistant, Collected alpine sediment lake cores, stream water samples, humidity/ temperature data loggers, and rock glacier aerial imagery

PUBLISHED WORKS

- Hauri, C., **Andreasen, J.**, Aracri, S., Assmann, J. J., Divine, L., Black, J., Culha, C., Ghigliotti, L., Graham, M., Gryba, R., Hauser, D., Huntington, H., Itchuaqiyag, C. U., Johnson, N., Ksenofontov, S. S., Lafferty, A., Lescak, E., Morgenstern, A., Ogawa, M., Sugiyama, S., Walch, D. M. R. How Working Across Indigenous Knowledges and Academic Scientific Systems Strengthens Research Quality and Societal Relevance. Arctic Observing Summit (AOS), Aarhus, Denmark. <https://doi.org/10.5281/zenodo.18751167>, 2026
- Andreasen, J. R.** and Neff, P. D.: Climate Controls on Snowfall at Coastal West Antarctic Ice Rises - Potential Ice Core Sites, *The Cryosphere*, [in review], <https://doi.org/10.5194/egusphere-2025-6010>, 2025.
- Andreasen, J. R.**: When Climate Research Fuels Climate Myths: Author Insights from a Misused Publication, *Eos*, 106, <https://doi.org/10.1029/2025EO250034>, 3 February 2025.
- Davison, B. J., Hogg, A. E., Gourmelen, N., Jakob, L., Wuit, J., Nagler, T., Greene, C. A., **Andreasen, J.**, and Engdahl, M. E.: Annual mass budget of Antarctic ice shelves from 1997 to 2021, *Sci. Adv.*, 9, eadi0186, <https://doi.org/10.1126/sciadv.adi0186>, 2023
- Andreasen, J. R.**, Hogg, A. E., and Selley, H. L.: Change in Antarctic ice shelf area from 2009 to 2019, *The Cryosphere*, 17, 2059–2072, <https://doi.org/10.5194/tc-17-2059-2023>, 2023.
- Christ, A. J., **Andreasen, J.R.**, and Toller, J.: Ice-core constraints on past sea-level change, *PAGES Mag*, 30, 116–117, <https://doi.org/10.22498/pages.30.2.116>, 2022.
- Neff, P.D., **Andreasen, J.R.**, Roop, H.A., Pundsack, J., Howe, B., Jacobs, G., Lassner, D., Yoshimi, G., and Timm, K. (2021): 2021 Antarctic Subsea Cable Workshop Report: High-Speed Connectivity Needs to Advance US Antarctic Science. *University of Minnesota*, <https://z.umn.edu/AntarcticCableFinalReport> 1 October 2021.
- Rohrbach, K., Li, Y., Zhu, H., Liu, Z., Dai, J., **Andreasen, J.** and Hu, L.: A cellulose based hydrophilic, oleophobic hydrated filter for water/oil separation. *Chemical Communications*, 50, 13296–13299, <https://doi.org/10.1039/C4CC04817B> 2014.

TALKS

- Andreasen, J.**, and Neff, P. “Developing a Climate Classification Framework for Antarctica: Integrating Reanalysis, K-Means Clustering, and In-Situ Observations”. *UMN Earth Student Research Symposium (SRS)*, Minneapolis, MN April 4, 2025
- Andreasen, J.**, Neff, P., Hogg, A., and Selley, H. “When Cryospheric Science Fuels Climate Myths: Author Insights from a Misused Publication”. *AGU Fall Meeting*, Abstract C42C-05, Washington, DC, Dec. 12, 2024
- Andreasen, J.** and Neff, P. “Reanalysis Evaluation of Climatic Controls at Coastal WAIS Ice Rises”. *West Antarctic Ice Sheet (WAIS) Workshop*, Gainesville, FL, November 14, 2024.
- Andreasen, J.** and McKenzie, M. “Early career needs & discussion within the WAIS Community”. *West Antarctic Ice Sheet (WAIS) Workshop*, Gainesville, FL, November 14, 2024.
- Andreasen, J.** “Impact of Observed Ice Shelf Extents on Freshwater Fluxes”. *NASA-GISS Anomalous Freshwater Workshop, Invited Presenter*, Virtual, February 11-13, 2024.
- Andreasen, J.**, MacLennan, M., and Robertson, E. “Early career needs & discussion within the WAIS Community”. *West Antarctic Ice Sheet (WAIS) Workshop*, Cloquet, MN, September 28, 2023.
- Andreasen, J.**, Robertson, E., and Fudge, T., “ICECREW: Connecting and Training Icy Early Career Researchers with an annual workshop”. *West Antarctic Ice Sheet (WAIS) Workshop*, Cloquet, MN, September 27, 2023.
- Neff, P., Han, Y., **Andreasen, J.**, Goel, V., and Young, T. “RAICA: Korea-US collaboration establishing a Ross-Amundsen Ice Core Array to better understand West Antarctic coastal climate”. *WAIS Workshop*, Cloquet, MN, September 27, 2023.
- Hillebrand, T., Hoffman, M.J., Perego, M., Price, S.F., Han, H.K., **Andreasen, J.**, Kachuck, S.B., Zhang, T. and Bassis, J.N. “Combining stress-and damage-based calving laws reproduces recent behavior of Thwaites Glacier, Antarctica, and enhances 21st century ocean-driven retreat”. *AGU Fall Meeting 2022*, Virtual, December AGU.

- Andreasen, J.** and Neff, P. “Improved understanding of decadal surface mass balance, recent climate variability, and future ice core sites along coastal West Antarctica” (Oral) *International Partnerships in Ice Core Sciences (IPICS) Conference*, Crans-Montana, CH, October 6, 2022
- Franklin, H. and **Andreasen, J.** “Polar Impact- Breaking Barriers in Polar Research” (Oral) *The Arctic Institute Polar (In)Securities Conference*. **Invited Presenter**, Virtual Presentation due to COVID-19, June 9, 2022
- Andreasen, J.** and Neff, P. “Improved understanding of decadal surface mass balance, recent climate variability, and future ice core sites along coastal West Antarctica using NASA Operation IceBridge airborne snow radar” (Oral) *U.S. Open Ice Core Science Meeting, Scripps Institute of Oceanography*, San Diego, CA, May 25, 2022
- Davison, B., Hogg, A., Gourmelen, N., **Andreasen, J.**, Rigby, R., Wuite, J., and Nagler, T.: Annual estimates of basal melting and calving from Antarctic ice shelves during 2010-2019, EGU General Assembly 2022, Vienna, Austria, 23–27 May 2022, EGU22-3951, <https://doi.org/10.5194/egusphere-egu22-3951>, 2022
- Andreasen, J.** “Polar Impact- JEDI Seminar” (Oral) *University of Minnesota, Department of Earth and Environmental Sciences*, **Invited Presenter**, Virtual due to COVID-19, April 4, 2022
- Andreasen J.**, Atekwana E., Bryant R., and Cisneros J. “Finding Your Place for Change: How and Where to Take an Active Role in DEI Initiatives as Early Career Researchers and Students” *AGU Fall Meeting*, Abstract TH13C, **Invited Panelist**, Virtual attendance due to COVID-19, Dec. 13, 2021
- Andreasen, J.** “Snow Accumulation Time Series of Coastal WAIS” (Oral) *Hercules Dome Ice Core Community Workshop and Science Planning Meeting*, Virtual due to COVID-19, May 10, 2021
- Andreasen, J.** “Annual Area Changes of Antarctic Ice Shelves from 2009-2019” (Oral) *West Antarctic Ice Sheet Workshop*, Virtual due to COVID-19, Sep. 24, 2020.

POSTERS

- Andreasen, J.**, Ballinger, T., and Ding, Q., “Identifying the origins and pathways of extreme western Greenland-Baffin Bay rainfall with disparate moisture tracking approaches”. *AGU Fall Meeting*, Abstract 1920073, New Orleans, LA, Dec. 15, 2025
- Andreasen, J.** and Neff, P., “Characterizing Optimal Ice Core Sites: Reanalysis Evaluation of Climatic Controls on Snowfall at Coastal Ice Rises of the West Antarctic Ice Sheet”. *AGU Fall Meeting*, Abstract C51F-0523, Washington, DC, Dec. 13, 2024
- Andreasen, J.**, Neff, P., and Medley, B. “Assessing West Antarctic Ice Rise Climatology and Ice Core Site Suitability Using Reanalysis and Back-Trajectory Analysis” (Poster) *West Antarctic Ice Sheet (WAIS) Workshop*, Cloquet, MN, September 28, 2023
- Andreasen, J.**, Neff, P., and Medley, B. “Investigation of Martin Peninsula, Antarctica as a Future Amundsen Sea Ice Core Site” (Poster) *U.S. Open Ice Core Science Meeting, University of Washington*, Seattle, WA, May 8, 2023
- Andreasen, J.** and Neff, P. “Improved understanding of decadal surface mass balance, recent climate variability, and future ice core sites along coastal West Antarctica” (Poster) *West Antarctic Ice Sheet (WAIS) Workshop*, Estes Park, CO, September 27, 2022
- Andreasen, J.** “Annual Area Changes of Antarctic Ice Shelves from 2009-2019” (Poster) *Graduate Student Climate Conference*, Virtual due to COVID-19, Nov. 1, 2020.
- Andreasen, J.** “The Analysis of Circum-Antarctic Calving Fronts- How have Antarctica’s Major Ice Shelves Changed in the Past 10 Years?” (Poster), *Women in Antarctica Symposium: Celebrating 50 years of Exploration*, Columbus, OH, Oct. 18, 2019

FELLOWSHIPS & GRANTS

International Arctic Science Committee (IASC), Atmosphere Working Group Fellow	2026-Present
AGU Cryosphere Division, Flash Freeze 2nd Place Award- \$1,500	2025
NASA Future Investigator, NASA FINESST Grant- \$134,993.50	2021 - 2024
University of Minnesota, Donald Baker Scholarship- \$800	2022
University of Minnesota, Provost's Award- \$8,250	2020

The Ohio State University, Green Engineering Scholar- Honor	2018
The Ohio State University, National Buckeye Scholarship- \$54,000	2014 - 2018
Washington, DC, DC Tuition Assistance Grant Award- \$40,000	2014 - 2018

TEACHING & PROFESSIONAL WORKSHOPS

NASA GISS Anomalous Freshwater Workshop , Virtual <i>Invited Speaker and Participant</i>	Feb-11-15, 2024
WAIS Workshop , Cloquet, MN <i>Local Co-organizer; ECR Workshop organizer; and Participant</i>	Sep 25-28, 2023
COLDEX Oldest Ice Science Short Course , Whidbey Island, WA <i>Short course Participant</i>	May 11-12, 2023
Ice Core Early Career Researchers Workshop (ICECReW) , Seattle, WA <i>Co-organizer and Workshop Participant</i>	May 7-8, 2023
University of Washington ICESat-2 Hackweek , Virtual (Covid-19) <i>Workshop Participant and Ice Discharge Team Member</i>	Mar 21-25, 2022
Ice Core Early Career Researchers Workshop (ICECReW) , Virtual (Covid-19) <i>Workshop Participant and Synthesis Paper Author</i>	Jan 5-8, 2022
University of Minnesota Department of Soil, Water, and Climate , Twin Cities, MN <i>Graduate Teaching Assistant</i>	Spring, 2021

LEADERSHIP & VOLUNTEERING

CryoZine- Bridging Cryospheric Science and Public Engagement <i>Founder and Lead Organizer</i>	Dec 2024 - Present
Ice Core Early Career Researchers Workshop (ICECReW) <i>Organizing Committee Member</i>	Sep 2022 - Present
Wellfed Market , Washington, DC <i>Climate and Environment Advisor</i>	June 2022 - Present
UMN Soil Water and Climate DEI Committee , St. Paul, MN <i>2023-24 Committee Co-Chair</i> <i>2021-23 Committee Member</i>	Nov 2021 - June 2024
Crumpled Paper Collages , Saint Paul, MN <i>Founder and Artist of Cryosphere-inspired Collages and Stickers</i>	Dec 2020 - Present
Canadian Ice Core Lab (CICL) , Edmonton, AB <i>Volunteer Lab Tech for Mt. Waddington Water Isotope Samples</i>	Oct 23-29, 2023
West Antarctic Ice Sheet (WAIS) Workshop , Cloquet, MN <i>Early Career Representative and Local Organizing Committee Member</i>	May 2023 - Oct 2023
UMN Earth Science Student Research Symposium , Minneapolis, MN <i>Committee Member and SWAC Representative</i>	Oct 2021- May 2023
UMN Outreach Through Science and Art (OSA) , Minneapolis, MN <i>Co-Organizer; Science/Art Exhibitions Participant and Facilitator, "Rock, Paper, Ice- by Julia Andreasen" Installation can be found here</i>	Oct 2021- May 2022
Polar Impact , Virtual <i>Co-Organizer and Volunteer Coordinator</i>	Jan 2021- Oct 2023

PEER REVIEWER

Nature Geosciences, Remote Sensing of Environment

TECHNICAL SKILLS

MATLAB ArcGIS QGIS

MEMBERSHIPS

American Geophysical Union (AGU)

Python

GitHub

HYSPLIT

International Glaciological Society (IGS)
International Arctic Science Committee (IASC)