



# CONFERENCE REPORT 2022

This activity was supported in part by the National Science Foundation under Cooperative Agreement No. PLR-1928794. This document summarizes the event proceedings and all opinions, findings, and conclusions expressed in this report are those of the Arctic Research Consortium of the United States (ARCUS) and do not necessarily reflect the views of any organization that provided support for the project or the endorsements of committee member home institutions, the ARCUS Board of Directors, or other members of the ARCUS consortium.

Since 1988, ARCUS has served to connect interdisciplinary Arctic researchers, educators, Indigenous Knowledge holders, residents, and other stakeholders to catalyze knowledge exchange and establish meaningful connections. Membership is open to all organizations and individuals interested in working together to achieve the strategic goals of the Consortium and to build and sustain the network of collaborative relationships that enable Arctic research.

For information about other products and activities of ARCUS, please visit [www.arcus.org](http://www.arcus.org).

### Credits:

Conference logo created by Zeb Polly at ARCUS

Cover photo courtesy of ARCUS

End cover photo courtesy of ARCUS

Copyright 2022 by the Arctic Research Consortium of the US.  
All rights reserved.



**Suggested Citation**

Arctic Research Consortium of the US. 2022.  
Community and Citizen Science in the Far North  
Conference Report. Fairbanks, AK: Arctic Research  
Consortium of the US.

**Conference Organizers**

Janet Warburton, ARCUS  
Lisa Sheffield Guy, ARCUS  
Audrey Taylor, University of Alaska Anchorage  
Kuba Grzeda, ARCUS

**Steering Committee**

Annette Bombosch, The Polar Citizen Science Collective  
Erica Chenoweth, Alaska Department of Fish and Game  
Dennis Davis, Shishmaref, Alaska  
Kaare Sikuaq Erickson, Ikaagun Engagement, LLC  
Roberta Tuurraq Glenn, University of Alaska Fairbanks  
Katie Spellman, University of Alaska Fairbanks

**Acknowledgments**

ARCUS would like to acknowledge all the Steering Committee members that helped plan, organize, and conduct the conference and webinar. The committee put in over 100 hours of volunteer time towards this effort and truly made it successful. We want to acknowledge the conference participants for being fully present, connecting, and sharing their stories despite the challenges of a virtual event space.



---

# COMMUNITY AND CITIZEN SCIENCE IN THE FAR NORTH CONFERENCE REPORT

---

## Overview

ARCUS hosted the first ever conference on the topic of community and citizen science in the Arctic and Far North on 5–7 October 2021. The Community and Citizen Science in the Far North (#CCSFarNorth on social media; <https://www.arcus.org/meetings/2021/arctic-ccs>) conference was held entirely virtually, and was focused on discussing the myriad aspects of conducting community and citizen science research in the circumpolar north. The conference was conceived in response to the need to recognize, connect, and support a growing community of researchers, communities, and visitors that are interested in engaging in community and citizen science in some way. Although many resources regarding community and citizen science exist, they are not specific to the Arctic or Far North, hence the primary goal of the conference was to provide an opportunity to share knowledge and increase networking among researchers, community members, and other practitioners of community and citizen science in the circumpolar north.

Conference participants hailed from all corners of the circumpolar north, with over 19 countries represented and 124 participants attending the live event. Over 280 total people registered to access the archived materials (Figure 1).

In the registration process, registrants were asked, “What makes community and citizen science in the Arctic unique?” As a result of their responses to this question, a Word Cloud was generated (Figure 2).

### *Conference Format*


More than 40 presentations were given by a diverse mix of researchers, practitioners,

community members, and Arctic adventurers across the three days of the conference. Each day opened with a land acknowledgement followed by a keynote presentation, a series of 15-minute talks, three-minute “lightning” talks, panel discussions, and a number of pre-recorded presentations hosted on YouTube. Presentations focused on a variety of subjects, from research and observing projects engaging Indigenous observers, to Arctic expedition reports, discussions of data management techniques and different platforms for collecting citizen science data, and reflections on how to improve relationships between researchers and the Arctic communities they hope to engage.

Presentations were organized into four specific sessions (Table 1): “Unique to the Far North,” “Just Sharing,” “All About the Data,” and “Lessons Learned ([see the website for the detailed agenda and complete list of abstracts](#)). Sessions were intentionally kept broad to encourage interdisciplinary participation and facilitate the sharing of experiences across projects and topics.

Although the subject matter of the talks varied widely, almost all presenters emphasized increasing awareness of the need to be respectful of the time and constraints of people living and working in the Arctic, and the growing desire of communities to be equal partners in community and citizen science projects in their regions. The conference was made light-hearted by the inclusion of themed music during session breaks, door prizes, and many enthusiastic moderators and speakers. The positive energy around the overall topic was palpable, and post-presentation question and answer sessions spurred interesting and engaging discussions.

## Conference Participation by Country

Number of Registrations  1 216

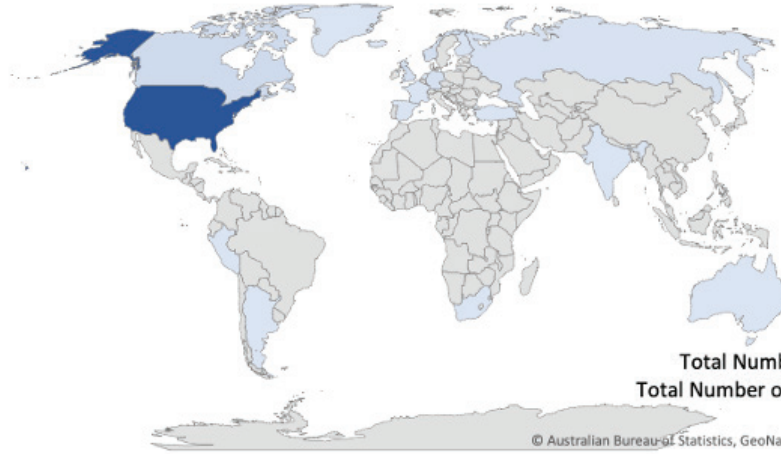


Figure 1: Map of the world depicting countries of Community and Citizen Science in the Far North conference participants. Darker shade of blue indicates higher density of conference participants per country. This map includes all those that registered. Of the 285 registrations, 124 people participated virtually.



Figure 2: Word cloud generated from conference registrant answers to the question: "What makes community and citizen science in the Arctic unique?" Larger type size indicates higher frequency of use in registrant responses.

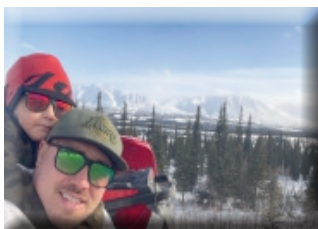
---

### Conference KeyNote Speakers

Keynote speakers started each session, sharing their experiences in community and citizen science in the Arctic.



Joel Heath is Executive Director and co-founder of the Arctic Eider Society, an Inuit-driven charity based in Sanikiluaq Nunavut. Joel is an accomplished Canadian academic and filmmaker, former Fulbright Chair in Arctic Studies and a 2020 Ashoka fellow. He has 20 years of Arctic experience working with Inuit communities combining his expertise in ecology, sea ice dynamics, and mathematical biology with Inuit knowledge.



Kaare Ray Sikuaq Erickson is the Principal and team lead for Ikaagun Engagement, based in Unalakleet and Anchorage, Alaska. Sikuaq was raised on the Bering Sea coast and has family scattered across northern Alaska from Unalakleet to Shishmaref to Utqiagvik. Sikuaq was taught to provide for his communities through subsistence and leadership; to be aware of problems facing Arctic communities; and to find creative, realistic, and effective ways to alleviate or solve those issues.



Dr. Katie Spellman is a lifelong Alaskan with a passion for community and citizen science, plants, social justice, and family. Her parents, Jim and Chris Villano, were teachers in St. Mary's, Alaska, and later Fairbanks, where Katie was born.

### Conference Feedback

Feedback from the post-conference survey indicated that conference organizers were successful with the goals of sharing and networking. Eighteen attendees submitted conference feedback with a majority indicating “very satisfied” with conference content.

“

*It was fascinating to learn about so many projects occurring circumpolarly, which are co-creations with local people incorporating their knowledge and having relevance!*

*- Feedback from conference participant*

**Table 1: List of Presentations by Session.**

All presentations can be accessed online on the website (<https://www.arcus.org/meetings/2021/arctic-ccs/abstracts>)

Presenter Name	Presentation Title	Presenter Organization
<b>Keynotes</b>		
Joel Heath	SIKU: The Indigenous Knowledge Social Network—Tools and Services Supporting a Leading Role for Northern Communities in Research and Monitoring	The Arctic Eider Society
Kaare Sikuaq Erickson	Why It's so Hard to Solicit Buy-in from Arctic Communities in Arctic Research	Ikaagun Engagement
Katie Spellman	Alaska Berry Citizen and Community Science - A Decade of Science, Learning, and Navigating the Program Design Tradeoffs Between the Two	University of Alaska Fairbanks International Arctic Research Center
<b>Unique to the Far North</b>		
Lisa Sheffield Guy (Panel Convener)	<b>Panel:</b> The Sea Ice for Walrus Outlook: Twelve Years of Partnership to Support Bering Strait Communities	Arctic Research Consortium of the United States
Sunniva Sorby	Power of Citizen Science to Transcend Boundaries and Inspire Climate Action	Hearts in the Ice
Casey Ferguson	Indigenous Sentinels Network: Implementing Tribally-led Programs to Enhance Stewardship of Traditional Foods and Critical Habitat in Alaska	Alaska Pacific University
Saskia Hirsch	Addressing Climate Change's Impacts on the Environment-health Nexus Through Community Collective Action in Sitka, Alaska	University College London
Elena Sparrow	Working Together for Climate Change Learning and Community Science in Indigenous Communities	University of Alaska Fairbanks
Casey T Burns	Supporting Bee Conservation in Alaska through Community Science	US Bureau of Land Management
Dennis Davis	Eyes in the Skies: Utilizing Drone Technology to Serve Community Needs in Shishmaref, Alaska	Shishmaref, Alaska
Valeria Savinova	Modern Architecture of the Arctic Research Facilities	Moscow Institute of Architecture (state academy)
Alexandra Middleton	Socio-economic Changes in Norwegian and Russian Settlements on Svalbard	Oulu Business School
Katie Spellman	Fresh Eyes on Ice - Broadening Participation in River Ice Observing	University of Alaska Fairbanks
Jessica Christian	Citizen Science: Shoreline Change Monitoring in Southwestern Alaska	University of Alaska Fairbanks
Stefanie Ickert-Bond	The Role of Citizen Science, Taxon Concepts and Sequence Capture in the New Flora of Alaska Project	University of Alaska Fairbanks
Stefanie Ickert-Bond	North to the Future: Asynchronous Delivery of Systematic Botany at the University of Alaska Fairbanks	University of Alaska Fairbanks
Tobias Schwoerer	Harnessing the Power of Community Science to Address Data Gaps for Arctic Observing: Case Examples from the Alaska Invasive Species Partnership	University of Alaska Fairbanks, International Arctic Research Center
<b>Just Sharing</b>		
Catherine Coon (Panel Convener)	<b>Panel:</b> Opportunities to Contribute to Coastal Biodiversity Monitoring around the Arctic	Circumpolar Biodiversity Monitoring Program and Bureau of Ocean Energy Management
Stanislav Ksenofontov	Collaborative Research: Indigenous Methodologies in Arctic Sciences	ARCTICenter, University of Northern Iowa
Erin Marbarger	Listen Up! Discovering and Researching Alaska's Soundscapes Through Community and K-12 Outreach	Anchorage Museum
Michael Kaplan	Inflatable Heritage: Innovations in Design and Instruction at Spirit Camps in Prince William Sound, Alaska	Alaska Pacific University
Gail Ashton	Monitoring for Marine Non-native Species in the Arctic	Smithsonian Environmental Research Center
Melissa Ward Jones	Permafrost Grown: Co-producing Knowledge with Alaskan and Siberian Farmers to Understand Permafrost-cultivation Interactions	University of Alaska Fairbanks
Jacqueline Ramsay	Building a Baseline for Ocean Acidification Trends in Coastal Alaskan Communities	Alutiiq Pride Marine Institute
Donna Hauser	Tracking Changes in Arctic Alaska Through a Collaborative Network of Indigenous Observers in Coastal Communities	International Arctic Research Center, University of Alaska Fairbanks
Zoe Garbis	Wildfire Communication in Alaska and Sweden	The George Washington University
Thomas Farrugia	Establishing a Baseline Monitoring Program for HABS in the Arctic	Alaska Ocean Observing System
Soraya Kaiser	UndercoverEisAgenten - The Bird's Eye on Permafrost Degradation	Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research
Melissa Nacke	Citizen Science on Board Arctic Expedition Cruise Vessels: Collecting Data and Educating Tourists	Association of Arctic Expedition Cruise Operators
Jill Prewitt	A Partnership for Community-led Wave Monitoring in Alaska	Alaska Ocean Observing System
Olivia Lee	Shared Observing Interests in Coastal Sea Ice and Permafrost Hazards in Alaska	University of Alaska Fairbanks
Emilie Bouchard	Northern Animal Health Alliance	University of Saskatchewan
<b>All About the Data</b>		
Christina Buffington (Panel Convener)	<b>Panel:</b> Youth and Community Engagement on Air Quality and Clouds through GLOBE, NASA, and REACH	University of Alaska Fairbanks, International Arctic Research Center
Patrick Farnole	Citizen Science Initiative for a Community-based Monitoring of the Ocean temperature in the Uummannaq Fjord	University of Victoria, Canada
Douglas Wesley	CoCoRaHS in Alaska	NOAA/NWS
Eric Saczuk	Putting Drones Where They (Don't?) Belong	British Columbia Institute of Technology
Verena Meraldi	Expedition Cruise and Citizen Science: Powerful Tools to Collect Valuable Polar Data, Support Local Communities and Increase Nature Awareness	Hurtigruten Expeitions
Roberta Glenn Tuurraq	Documenting Coastal Change and Community-Based Observations in Alaska	Alaska Arctic Observatory and Knowledge Hub, State of Alaska Department of Natural Resources Division of Geological &
<b>Lessons Learned</b>		
Elizabeth MacDonald (Panel Convener)	<b>Panel:</b> The Hearts in the Ice Mission: Lessons Learned from Arctic Citizen Science Partnerships	NASA Goddard Space Flight Center
Micah Hahn	Reflecting on the Implementation of a Community-based, Long-term Tick Surveillance Program in Alaska	Institute for Circumpolar Health Studies, University of Alaska-Anchorage
Noor Johnson	An Overview of Data Management and Data Sharing Infrastructures for Community Science	National Snow and Ice Data Center, University of Colorado Boulder
Janet Warburton	Look at What We Are Learning!	Arctic Research Consortium of the United States



---

## Outcomes and Next Steps

### *Follow-up Webinar*

As a result of the feedback and interest in the conference, ARCUS scheduled and hosted a follow-up webinar on 30 November 2021 (<https://www.arcus.org/meetings/2021/arctic-ccs-webinar>). The purpose of the webinar was to provide participants an opportunity to network and engage in discussions centered around the initial Community and Citizen Science in the Far North conference themes held in October 2021. The webinar was open to anyone interested in continuing the discussions started during the conference, and twenty-three people attended. The webinar had breakout rooms centered on the four themes from the conference: Unique to the Far North, Lessons Learned, Just Sharing, and All About the Data, with an added element on Evaluation. In the breakout rooms, facilitators guided the discussions. Webinar participants emphasized the need for additional activities to build a network of people and projects focused on community and citizen science.

### *Online Resources*

The conference and webinar activities were shared via social media using #CCSFarNorth at @ArcticResearch on Twitter and Facebook. The conference agenda and archived presentations from the conference are available on the conference webpage (<https://www.arcus.org/meetings/2021/arctic-ccs>). A recording of the November webinar and associated information is on the webinar webpage (<https://www.arcus.org/meetings/2021/arctic-ccs-webinar>).

I couldn't think of a better way to start my PhD than attending #CCSFarNorth So many helpful insights and questions to think about! #CitizenScience #CommunityScience #Arctic @ArcticResearch

- Social media comment from conference participant

### *Next Steps*

Since the conference and webinar took place, ARCUS has continued to receive feedback from participants with their growing interest in community and citizen science in the Arctic. With this in mind, ARCUS will pursue development of a network with the goal to build a sustained community to advance the field of practice, and to share discoveries with a wider audience. Network activities might include, for example:

- Virtual and/or in-person networking events, workshops, and conferences
- A collection of resources (people, projects, funding, literature, training) that are Arctic-specific and focus on community and citizen science in an open and accessible online space
- A collaborative website and other online communication tools to support continued knowledge-sharing and discussions

ARCUS welcomes anyone who is interested in collaborating to [contact the meeting organizers](#). We look forward to building on the enthusiasm from the conference to develop a vibrant, engaged, and inclusive community working towards a vision of successful community and citizen science efforts.



**ARCUS**

P.O. Box 81310, Fairbanks, Alaska 99708

Email: [info@arcus.org](mailto:info@arcus.org) Website: [www.arcus.org](http://www.arcus.org)

**ARCUS**

ARCTIC RESEARCH CONSORTIUM  
OF THE UNITED STATES

