During this past year ACCAP focused on exploring, expanding, and evaluating. Our state-wide report, *Alaska’s Changing Environment*, highlights observed terrestrial, marine, and climate changes and has been extremely well received and used by stakeholders. We expanded our stakeholder base by leading a successful session on Business in a Changing Climate at the Juneau Economic Development Council’s Innovation Summit, held annually in the state capital. We also deepened and expanded our existing collaborations with the Alaska Ocean Observing System through a partnership that shares data and science about Bering Sea changes.

ACCAP added two new post-doctoral fellows (Elizabeth Figus and Adelheid Herrmann) along with a cadre of graduate students at various stages of their degree journey. In a continued effort to understand and measure the impact of RISA work, ACCAP contracted Susanne Moser to conduct an external program evaluation that has both retrospective and a prospective elements. With this evaluation report in hand, we are taking the next steps to create a full ACCAP strategic plan.
NEW FOCUS & PARTNERSHIP

COMMUNITIES RESPOND AND ADAPT TO CLIMATE CHANGE

Adelheid Herrmann, ACCAP post-doctoral fellow began work on building the capacity of rural communities to respond and adapt to climate change. Many of the Tribes in rural Alaska have been working on an adaptation, resilience, and mitigation planning process, and this project addresses the capacity of these Tribes to carry out and implement their planning processes.

The major themes examined in the context of climate resilience are:
1. Tribal economic and workforce development,
2. Tribal governance, and
3. Protocols related to research in rural communities.

In Alaska, there are often many individuals, research groups, Non-Governmental Organizations (NGOs), Tribes, and Tribal organizations working independently on issues of climate change, but they do not communicate with one another. We refer to this as the ‘silo effect.’ Within the themes noted above, Herrmann will examine and offer solutions to the ‘silo effect’ within organizations working on climate change and adaptation methods in order to help support Tribes planning for their future.

CLIMATE KNOWLEDGE CO-PRODUCTION WITH KAKE, AK

The Tribe and community in Kake, Alaska, are concerned about how the surrounding ocean waters and marine ecosystems are impacted by global climate change in conjunction with local stressors. Elizabeth Figus, ACCAP postdoctoral fellow, is carrying out a climate change case study using an Indigenous partnership co-production process.

This summer, there is an unprecedented low marine traffic, especially cruise ship traffic, due to cancellations and travel restrictions put in place as a result of the COVID-19 pandemic. Project partners are taking advantage of this low level of marine traffic to document baseline data about ocean waters around Kake. ACCAP, the Organized Village of Kake, and Kake Tribal Corporation aim to document key climate and pollutant indicators (e.g., pH, salinity, temperature, nutrients, dissolved metals, fecal coliform) that may affect the cleanliness and safety of ocean waters and shellfish around Kake.
LOOKING FORWARD

FOCUS ON DROUGHT

ACCAP activities are increasingly focused on drought in Alaska. This topic was first highlighted as a priority by Senator Murkowski’s staff during the onset of the drought in Southeast Alaska several years ago.

NIDIS drought assessment

ACCAP is partnering with the National Integrated Drought Information System (NIDIS) in an assessment of the 2017-19 drought in Southeast Alaska. We are leading a portion of the assessment, which includes documenting impacts, providing historical context and content, and communications production.

Drought Adaptation Workshop - Southeast Alaska

In May 2019, ACCAP played a prominent role in a drought workshop for Southeast Alaska hosted by the USDA Northwest Climate Hub to refine drought categories for the region, increase awareness of the National Drought Monitor and drought-impacts reporting, and highlight available information and resources to adapt to drought.

ACCAP is partnering with the Natural Resource Conservation Service (NRCS) and the USDA NW Climate Hub to build on this foundation and develop specific community-driven adaptation strategies that will serve the needs, challenges, and opportunities of remote temperate rainforest communities. A workshop is planned to collaboratively develop drought adaptation approaches and resources to implement these ideas. We anticipate the workshop will occur in either 2021 or 2022.

Drought in mainland Alaska

ACCAP is partnering with the USDA NW Climate Hub to hold a drought workshop focused on mainland Alaska. Key impacts and sectors include wildfire and agriculture.

The workshop was originally planned for fall 2020 but due to COVID-19 has been postponed. In the interim, ACCAP continues to partner with the USDA NW Climate Hub on a pre-workshop questionnaire and planning webinars to share information on drought and hear from different communities about their experiences with drought.

OUTREACH

Quarterly Climate Outlooks

A partnership with, NOAA, and Environment & Climate Change Canada presents a snapshot of recent weather and climate events and anomalies; regional weather impacts on the region’s ecosystems and economy; and a climate forecast for the coming 3 months.

Radio

Beyond the Weather (KUAC, Fairbanks and vicinity)
Climate Highlights (Public radio stations throughout coastal Alaska, KNOM—Nome; KDLG—Dillingham; KYUK—Yukon-Kuskokwim Delta)
Iditarod weather forecasts (KNOM) – Translating weather for Alaska’s Iditarod sled dog race.

Print & Reports

Nome Nugget: Weekly “Climate Watch” column
Alaska Climate Dispatch: Biannually and featuring seasonal weather and climate summaries and focused articles.

Webinars

• Alaska Climate Webinar Series - 700+ participants.
• National Weather Service Alaska Climate Outlook Briefings - 400+ participants.
• Virtual Alaska Weather Symposium in partnership with the Geographic Information Network for Alaska - 400+ participants.
INTERNATIONAL ENGAGEMENT AND COLLABORATION

Arctic Monitoring and Assessment Programme (AMAP)
The Arctic Council is preparing a report “Climate Issues of Concern”, for publication spring 2021. John Walsh is the lead author on an extreme events in the Arctic chapter, and Sarah Trainor is co-lead author for the chapter “Societal Implications of Arctic Change.”

Polar Prediction Project Societal & Economic Research Application (PPP-SERA)
Rick Thoman is the sole US representative on the World Meteorological Organization’s PPP-SERA Task Team. PPP-SERA guest edited a special issue in Polar Geography, titled “Societal Value of Improved Forecasting”.

Arctic Regional Climate Center
ACCAPO continued to collaborate with NOAA International Affairs to provide Alaska climate analysis and impacts to the World Meteorological Organization’s Arctic Regional Climate Centre.

Economies of the North (ECONOR)
Davin Holen is again working with international collaborators to draft the fourth version of the ECONOR report, which will be available to the Arctic Council Sustainable Development Working Group.

OUTPUTS

CLIMATE AND WEATHER VISUALS AND TOOLS
ACCAO climate and weather visuals provide Alaska-relevant information from the community to Arctic-wide scales and are monitored, used, and cited by researchers, agencies and media. Available graphics include:

- Sea surface temperature
- Air temperature
- Sea ice
- Other climate and weather

ACCAP also developed several tools to help stakeholders and decision makers understand Alaska’s changing environment.

- Statewide Temperature Index Tool - designed to quantify daily temperature departures for Alaska as a whole.
- Alaska Community Wind Tool - shows average monthly wind speeds, wind roses, and frequencies of high-wind events in past and future decades.

HIGHLIGHTED PUBLICATIONS


