

Northern Alaska Coastal Community Observing Networks: Building connections, sharing information, and exploring usefulness

Discussion Moderators:



Donna Hauser

University of Alaska Fairbanks
AK Arctic Observatory &
Knowledge Hub (AAOKH)



Matt Druckenmiller

University of Colorado
Exchange for Local Observations
& Knowledge of the Arctic
(ELOKA)



Erica Lujan

Alaska Native Tribal Health Consortium
Local Environmental Observer
(LEO) Network

Workshop goals and outline

Conversation about community-based observing programs

1. Short presentations to provide examples
2. Discussion about community-based observing to understand environmental change

Key questions

- How can we best bring local observations and scientific information together to help create healthy, resilient, and adaptive communities?
- How can we improve our ability to share and network community-based observations?
- What kinds of scientific information would be useful to combine with community-based information?

Please note

We want to hear from you!

You can learn more from our handouts.

We are taking notes and photos.



Exchange for Local Observations and Knowledge of the Arctic

Matt Druckenmiller

ELOKA Research Scientist

National Snow and Ice Data Center

University of Colorado





Exchange for Local Observations and Knowledge of the Arctic

- To collaboratively create tools for the collection, preservation, exchange, and use of local observations and knowledge
- To promote collaboration between Arctic Peoples and researchers
- To recognize and respect **knowledge and data sovereignty**
- To develop custom **data management systems**
- To build capacity

Local Observations

Seasonal Ice Zone Observing Network (SIZONet)

Home

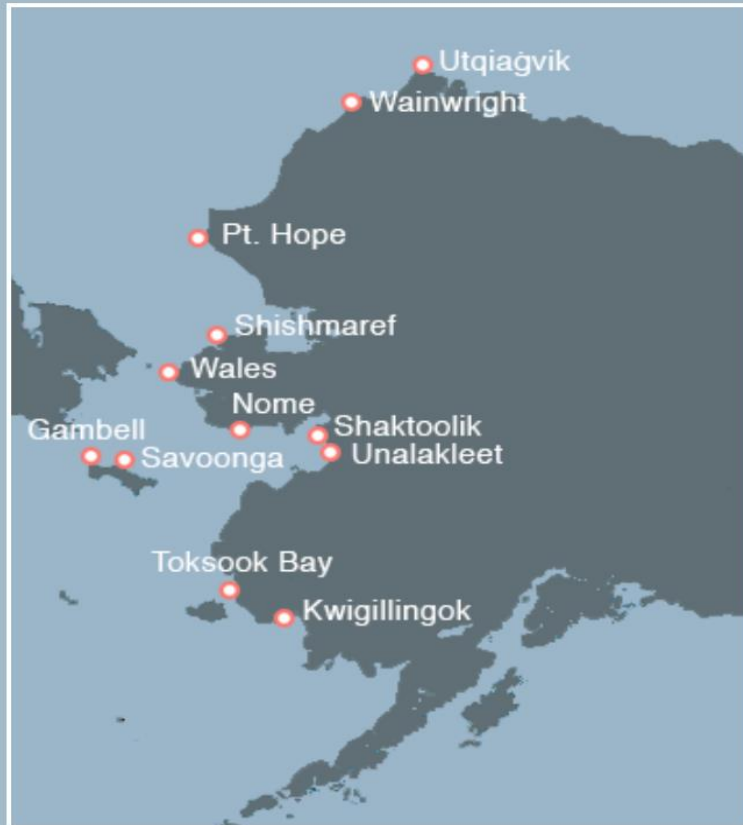
Search Observations

About

Research methods

Contacts

Search the observations catalog:



[View All](#)

Search for:

AND:

AND:

AND:

AND:

Date range: to

Search

Reset

Local Observations

Seasonal Ice Zone Observing Network
(SIZONet)

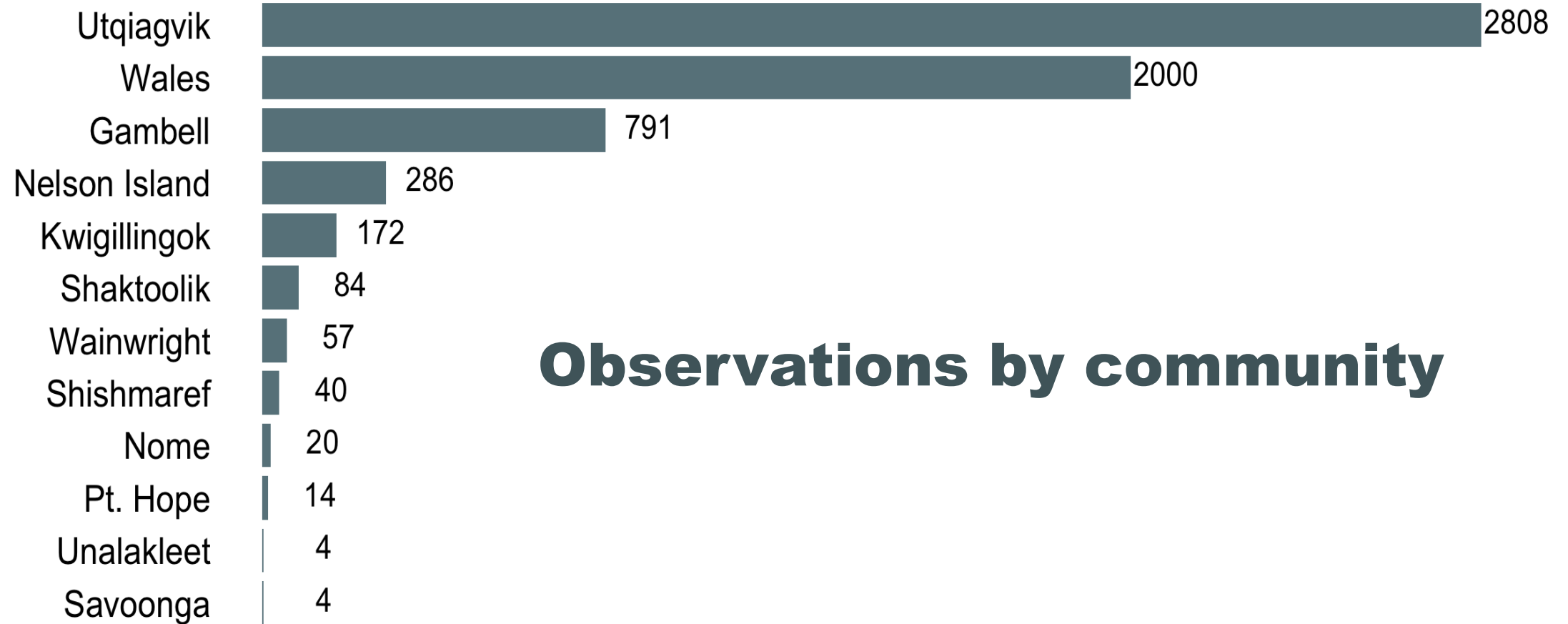
[Home](#)

[Search Observations](#)

[About](#)

[Research methods](#)

[Contacts](#)



Observations by community

Local Observations

Seasonal Ice Zone Observing Network
(SIZONet)

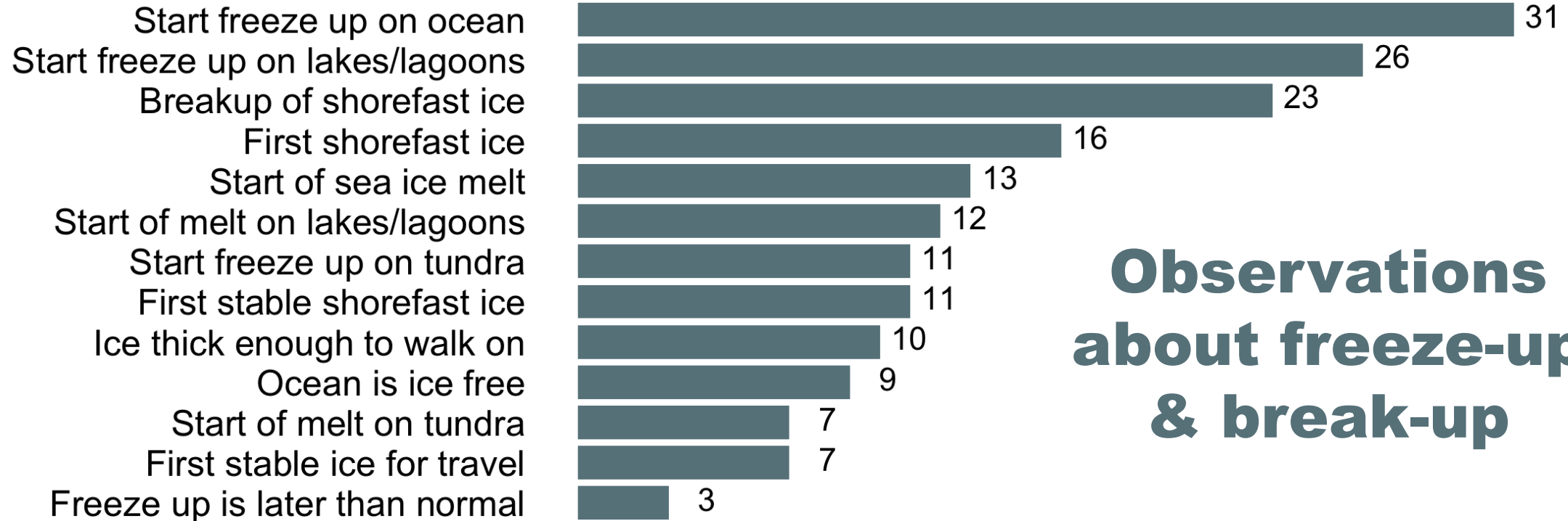
[Home](#)

[Search Observations](#)

[About](#)

[Research methods](#)

[Contacts](#)



**Observations
about freeze-up
& break-up**

Local Observations

Seasonal Ice Zone Observing Network (SIZONet)

[Home](#)[Search Observations](#)[About](#)[Research methods](#)[Contacts](#)

Observation ID:
UTQAD1710150933

Recorder: Josh Jones

Observer: Billy Adams
(Utqiaġvik (Barrow))

Date: 2017-10-15

Time: 09:33 AM

Observation location: Piqniq
(Duck Camp)

Observation Details

[Back to search results](#)[Edit Observation](#)[Previous](#) [Next](#)

Transcript

Location Piqniq, 25f, light nw winds, overcast, snow flurries, and visibility to 4 miles. The lagoons are starting to freeze, and snow on the ground is not melting.

Observation source(s):

- Email communication

Multimedia



Sea ice observations

Ice Type:

Slush ice

Annual Cycle:

Start freeze up on
lakes/lagoons

Weather

Air temperature:

Approximately 25.0 Fahrenheit

Visibility:

Approximately 4.0 miles

Skies: Overcast

Precipitation: Light snow

Wind Speed: Light

Wind Direction: NW

Yup'ik Environmental Knowledge Project with the Calista Elders Council

Yup'ik Atlas

Nunamta Ellamta-Illu Ayuqucia/What Our Land and World are Like

Over the last ten years the Calista Elders Council (CEC) has worked with elders from the communities of Kotlik, Emmonak, Alakanuk, Nunam Iqua, Newtok, Tununak, Toksook Bay, Nightmute, Cheforak, Kwigillingok, and Kongiganak to document Yup'ik place names. This work was initiated and encouraged by CEC's Board of Elders as well as community members and funded by the National Science Foundation. Elders showed a strong desire to teach young people the rich history and named places of their homeland, including camp and settlement sites, rivers, sloughs, rocks, ponds, even sandbars and underwater channels. During our work together community members shared more than 3,000 names as part of three ongoing CEC projects and two previous regional place name projects.

This website is an exciting new way to share what elders have taught us, and it is being developed in collaboration with ELOKA (Exchange of Local Observations and Knowledge in the Arctic). CEC's board of elders continually reminds us that it is our responsibility to share what they teach us. We hope this site helps visitors understand and gain new respect for the wisdom and traditional knowledge of Yup'ik people.

This site is still in development. Over the next few years we hope to add many new names as well as photographs, stories, and much more about these places. If you have any questions

ELOKA is a collaborative international effort; the Web site is hosted by the National Snow and Ice Data Center. contact: eloka@nsidc.org | Made by ELOKA with Nunaliit

AAOKH



ALASKA ARCTIC OBSERVATORY
AND KNOWLEDGE HUB

ALASKA ARCTIC OBSERVATORY & KNOWLEDGE HUB

Science Lead: Donna Hauser
International Arctic Research Center
University of Alaska Fairbanks



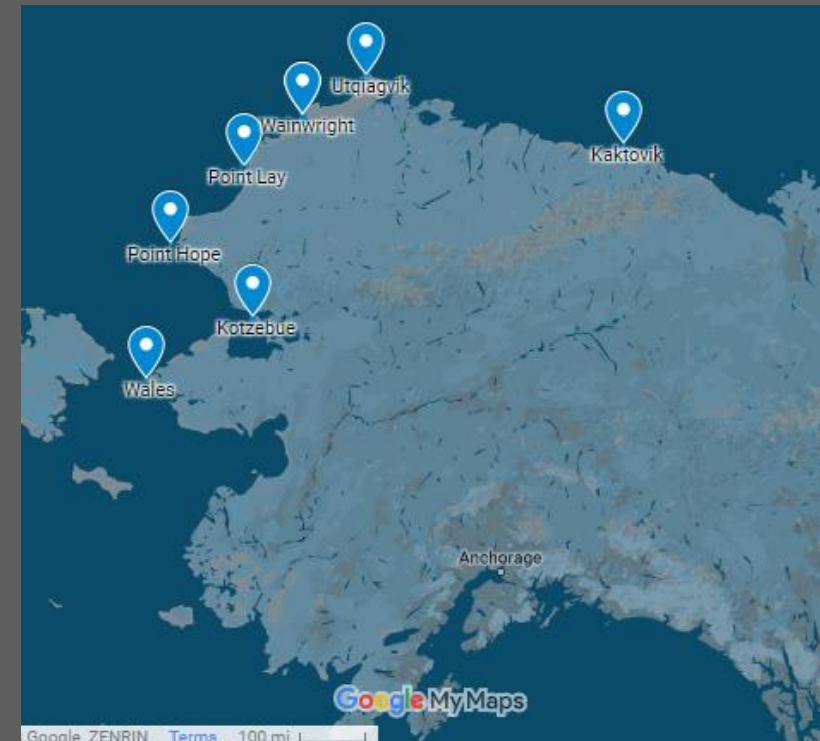
Community observers: Billy Adams & Joe Leavitt (Utqiagvik), Steven Patkotak (Wainwright), Jack Lane (Point Hope), Robert Tokeinna Jr. (Wales)

COMMUNITY-BASED OBSERVATIONS OF ARCTIC CHANGE



Our goal is to provide Northern Alaska coastal communities with tools, resources, and scientific support to share their expertise and observations of environmental change

- *Observations* of sea ice, wildlife, coastal waters by Indigenous coastal communities
- *Knowledge Hub* that networks communities, providing context to coastal observations and a changing seasonal cycle



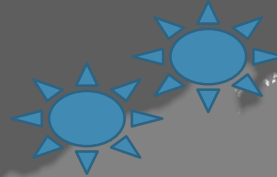


Billy Adams discusses ice conditions in Utqiagvik, AK in April 2018

WHAT DO AAKOH OBSERVATIONS SAY?

SHIFTING TRADITIONAL HARVESTS, TIMING, ACCESS

Steven Patkotak, Wainwright 7/10/18: Ocean current flow strong to NE and remaining ice from lagoon taken out. **Someone tried boating out of inlet but rough water and tide waves higher than the norm.** Cool weather and no bugs. Gillnetting out back in lagoon. **Only 4 days in past month calm enough for boating**

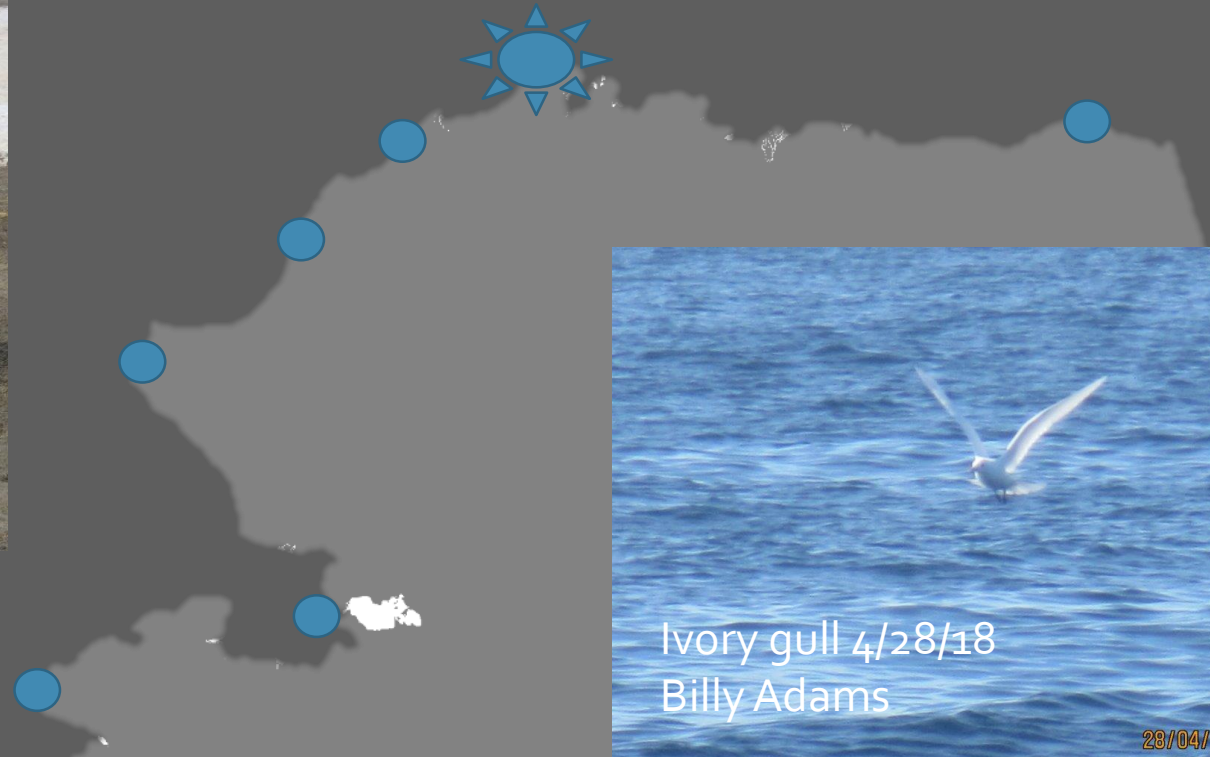


WHAT DO AAKOKH OBSERVATIONS SAY?

UNUSUAL OR RARE WILDLIFE



Steller sea lion 8/19/18
Mark Ahsoak Jr.



Ivory gull 4/28/18
Billy Adams

WHAT DO AAKKH OBSERVATIONS SAY?

CHANGING SEA ICE CONDITIONS: Thin ice, early break up, late freeze-up



Robert Tokkeina Jr, Wales 5/4/18:
this week we lost our shorefast ice.
Really super early



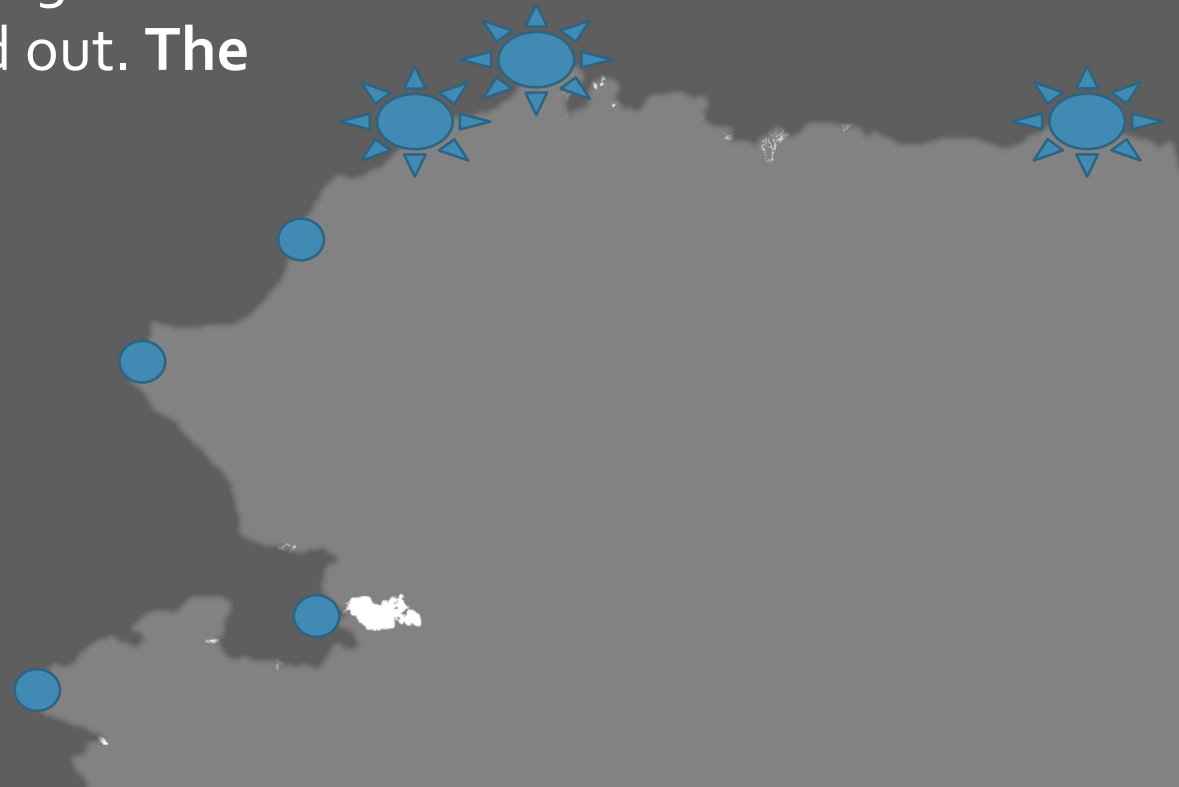
Billy Adams, Utqiagvik 11/14/18:
The ice is moving very slowly going
north an inch at a time.



WHAT DO AAKH OBSERVATIONS SAY?

COASTAL EROSION & STORMS

Lee Kayotuk, Kaktovik: there is lots of erosion happening in my area. Permafrost is melting and the ocean is just wiping the north of the island out. **The storms are so bad.**



KNOWLEDGE HUB: CREATING LINKAGES



New mapping tool to facilitate data sharing and access

<http://mapventure.org/#/map/aaokh>

A screenshot of the 'Alaska Arctic Observatory & Knowledge Hub' mapping tool interface. The interface is displayed on a satellite-style map of an arctic region. On the left side, there is a white sidebar menu with the following items: 'Hide menu', a list of data layers with checkboxes (CTD, Observations, Spring 2017 Whaling Trails, Sentinel-1 SAR image, Utqiagvik Marine Radar, Sea Ice Extent, Sea Ice Concentration), and links for 'Show two maps', 'Get involved!', 'About this map', and 'Take a tour of this map'. At the bottom of the sidebar is a link for 'About this site & other maps...'. The main map area shows a satellite view of ice and water. A white information window is open over the map, titled 'Observation by Billy Adams', and contains a photograph of a large ice formation under a clear blue sky. A blue location pin is visible on the map, labeled 'Barrow'. At the bottom right of the map area, there is a version number 'V2.0' and a copyright notice 'Copyright © 2018 SNAP / IARC / UAF'.

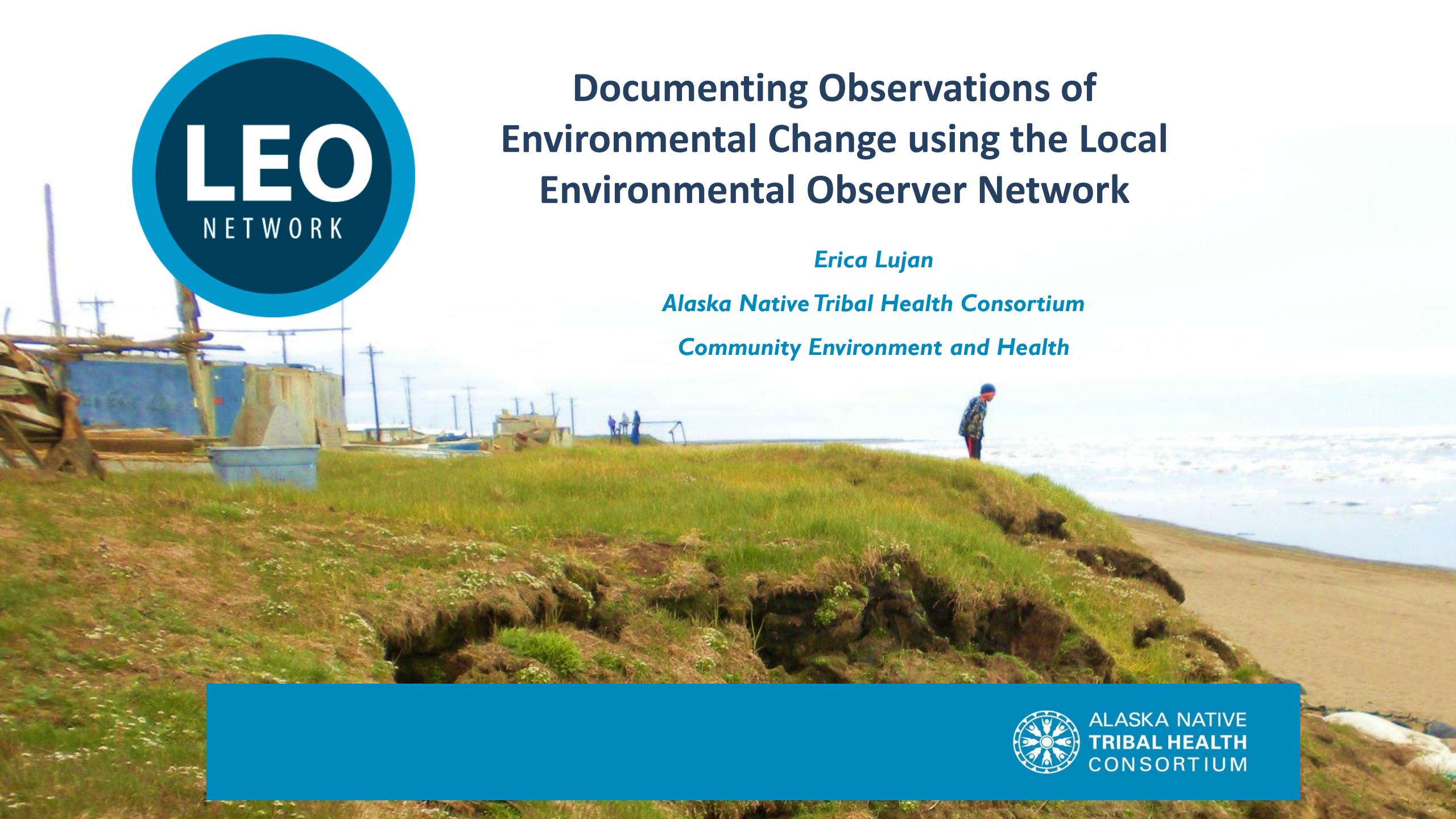


Documenting Observations of Environmental Change using the Local Environmental Observer Network

Erica Lujan

Alaska Native Tribal Health Consortium

Community Environment and Health



ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM



Air & Healthy Homes

Working with Tribal partners to address air quality and healthy homes issues in their communities



Center for Climate & Health

Assisting communities to better understand the impacts of climate change and how to adapt in healthy ways



LEO Network

The Local Environmental Observer (LEO) Network connects people through information on our shared environment

Supporting the preparedness of the Alaska Tribal Health System.

Services

Working with Tribal partners and communities to prevent the spread of disease and protect the health of Alaska Native people



Capacity & Training

Building capacity to enhance local environmental management



Food Security

Studying the connection between changes in our environment and traditional food and water sources

Environmental Observer Network



Users share unusual environmental events that help us understand our changing world. Please join us and [contribute your observations](#) or

News Articles



Watch our short video to learn more about the LEO Network.



Sea Lion (*Eumetopias jubatus*) Sighting in Utqiagvik ✕
 19 Aug 2018
 Utqiagvik, Alaska, United States
 LEO LEO Network
 Share + My Maps

Utqiagvik

Chukchi Sea

LEO Local Environmental Observer Network



LEO Network members share unusual environmental events that help us understand our changing world. Please join us and [contribute your observations](#) or [news articles](#).

 Observations News Articles

Watch our short video to learn more about the LEO Network.





 Change Photo

 Remove Photo

Erica Lujan

[View Public Profile](#)

 [Edit Profile](#)

 [Following](#)

 [My Maps](#)

 [Contributions](#) 33

 [Messages](#)

 [Collaborators](#)

 [Drafts](#) 18

 [Comments](#)

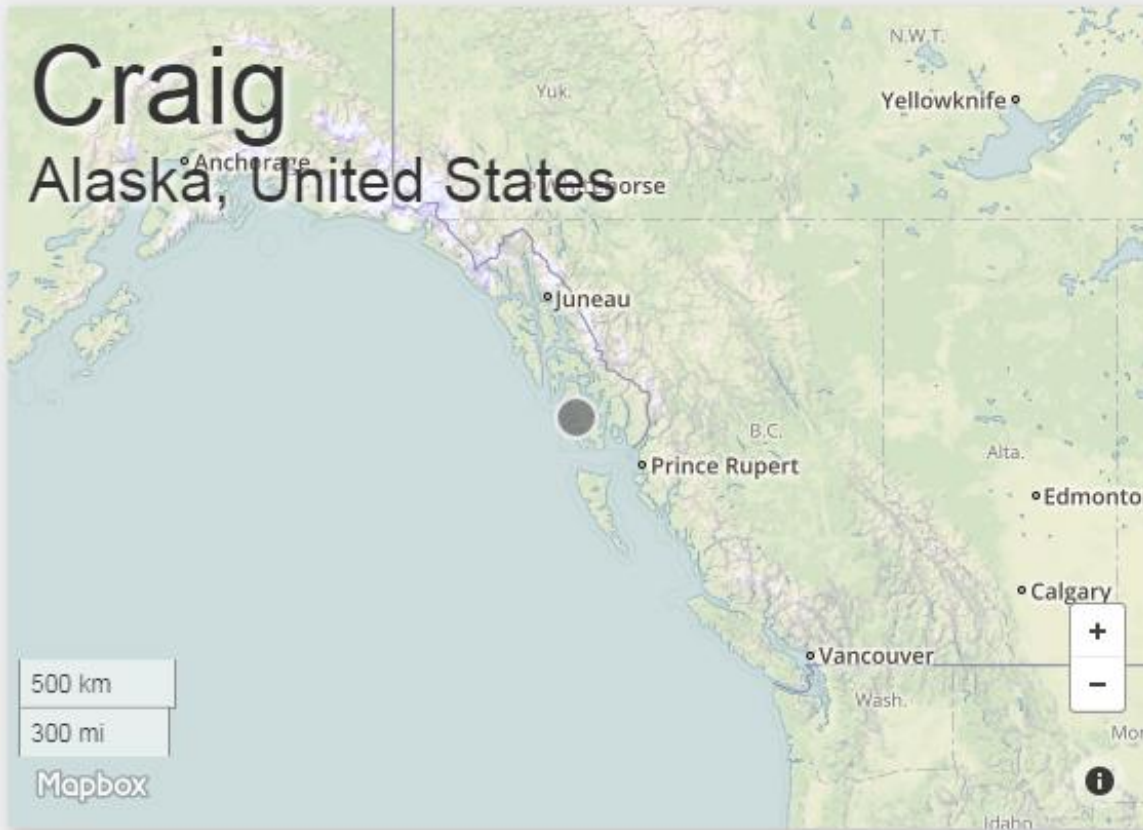
 [Submit Post](#)





Craig

Alaska, United States



10 Nearby Posts within 50 km [View All](#) >



Milky Blue Water Near Prince of Wales Island

Craig, Alaska, United States
20 JUL 2018

Warmer waters likely enabled a phytoplankton bloom to occur much later in the year than normal off the coast of Alaska and British Columbia.

LEO Network

[+ My Maps](#)

Follow

[Daily Satellite Imagery](#)

Daily imagery from NASA satellites [VIIRS](#), [Aqua](#) and [Terra](#).

[Weather](#)

Current and historical weather in Craig. Powered by [Dark Sky](#).

[ShoreZone Photos](#)

Aerial photography near Craig from [ShoreZone](#).

[Climate Projections](#)

Climate projections for Craig from [SNAP](#).

[Community Maps](#)

Maps of Craig from [State of Alaska DCRA](#).

4 LEO Members [View All](#) >

[Daniel Edenshaw](#)

[Robert Hobart](#)

[Stefanie Thomas - Fox](#)

[Shannon Yates](#)
Environmental Planner
[Craig Tribal Association](#)

NASA satellites VIIRS, Aqua and Terra provide the daily imagery. Image tiles served by NASA EARTHDATA.

show

Daily Satellite Imagery

for day

07/25/2018

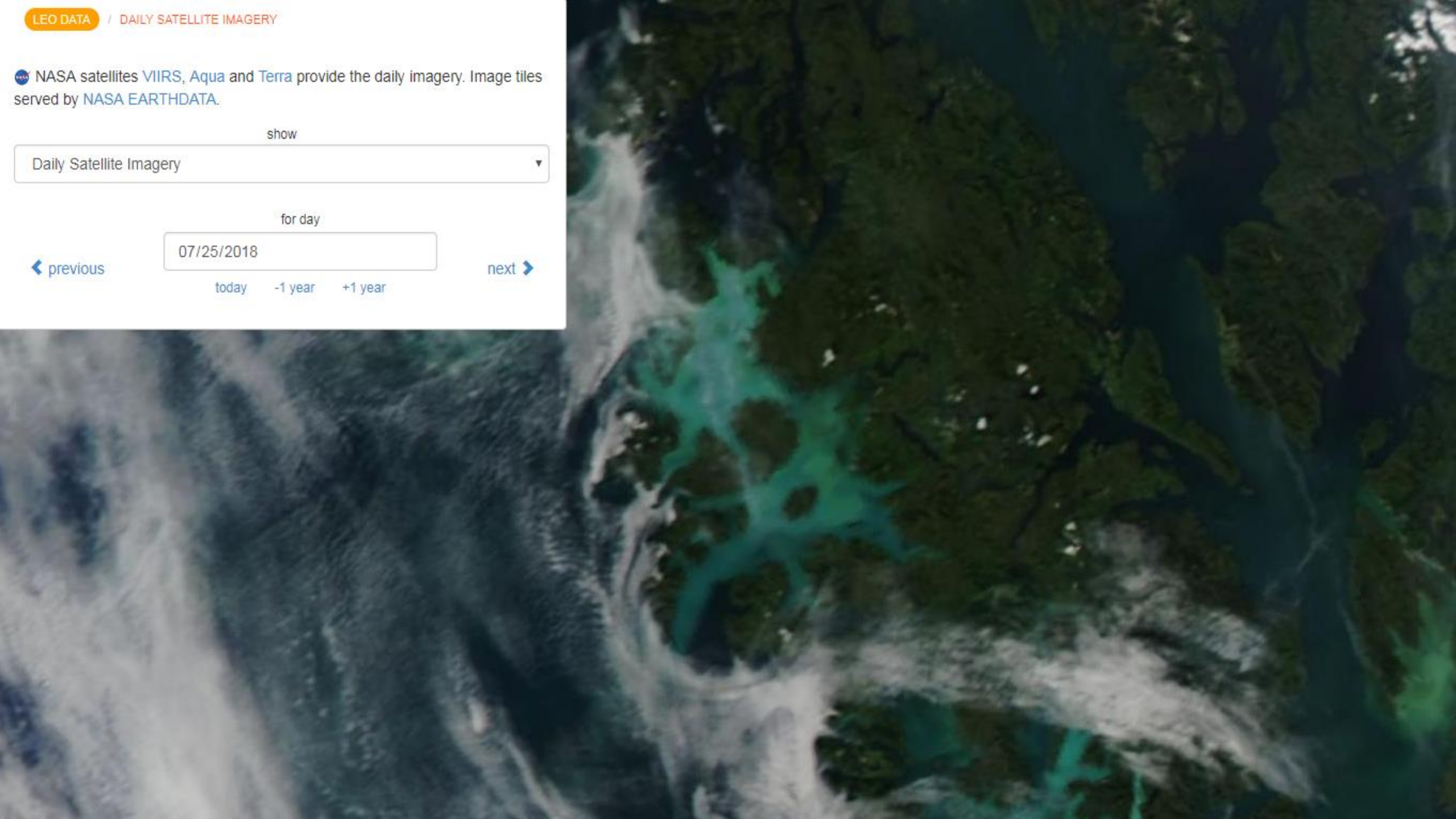
← previous

next →

today

-1 year

+1 year





Observation: With the summer season coming sooner and sooner, we are hunting the bearded seals earlier as well but why do we have to have rain in June? It has wreaked havoc on the preservation process. Many of the foods were molding because of the moisture in the air. I had to hang our drying meat inside my house and clean the mold after bringing them in.

LEO says: The impact to subsistence food is important to note here. This observation has been shared with the Alaska Department of Fish and Game, Division of Subsistence.

The [UAF Scenarios Network for Alaska + Arctic Planning \(SNAP\) historical precipitation chart](#) compares daily precipitation for locations around Alaska. The circles indicate daily precipitation frequency, and circle size and color indicate relative intensity. To the right of

★ Follow

Share

Edit

Contributors

Observer



Janet Mitchell
Kivalina Alaska, United ...

Consultant



Anna Godduhn
Fairbanks Alaska, Unit...

Add Comment



Erica Mitchell

Nov 2, 2017

Enter Your Comment Here ...

Who can see your comment?

Latitude 67.72694

Longitude -164.53333

Nearby

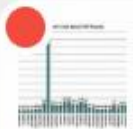


Bearded seal drying inside the houses (Photo courtesy of Janet Mitchell)

ALGAL BLOOMS

- Share
- Settings
- Search/Filter
- Stats
- Thumbnails

This map shows LEO observations of algal blooms in coastal communities. This is overlain with data of aquafarms, where shellfish are regularly tested by the Department of Natural Resources.



Persistent High PSP Levels

Sand Point, Alaska, United States
19 NOV 2013

Persistently high levels of PSP recorded in the Shumagin Islands.

LEO Network

+ My Maps



High PSP levels in clams

King Cove, Alaska, United States
7 NOV 2013

11-7-13 High PSP levels in clams - King Cove, Alaska, USA

LEO Network

+ My Maps



Noctiluca Bloom

Kasaan, Alaska, United States
13 JUN 2018

Second Noctiluca bloom we have had in the last 4 weeks

LEO Network

+ My Maps

