



# LEO Training

November 2023

**Making an Observation: Better to Best**

Lars Flora, LEO Network Coordinator, ANTHC

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LEO: The Local Environmental Observer Network | [www.leonetnetwork.org](http://www.leonetnetwork.org)



ALASKA NATIVE  
TRIBAL HEALTH  
CONSORTIUM

# Land Acknowledgment

We acknowledge the Dena'ina people, on whose traditional lands we gather. We also acknowledge the Creator and all Indigenous people of Alaska. Thank you for your past and present stewardship of the waters, plants, animals and spiritual practices of this place.



# LEO Training

## Making an Observation: Better to Best

At the end of this training you will:

- Familiarize yourself with LEO network website
- Have increased confidence in observation posts
- Share common observations/ trends
- Know what makes a Good Observation
- Know what makes a Great Observation



# Group Activity

Discussion



*LEO: The Local Environmental Observer Network* | [www.leonetwork.org](http://www.leonetwork.org)



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# Group Activity: Discussion

1. What are some things you have noticed this past season?
  - a. What are some observations in your community
  - b. How did that observation come about?



# Demonstration

LEO Observation



*LEO: The Local Environmental Observer Network* | [www.leonetwork.org](http://www.leonetwork.org)



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# Demonstration: LEO Observation

## LEO Local Environmental Observer (LEO) 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.



Advanced Search





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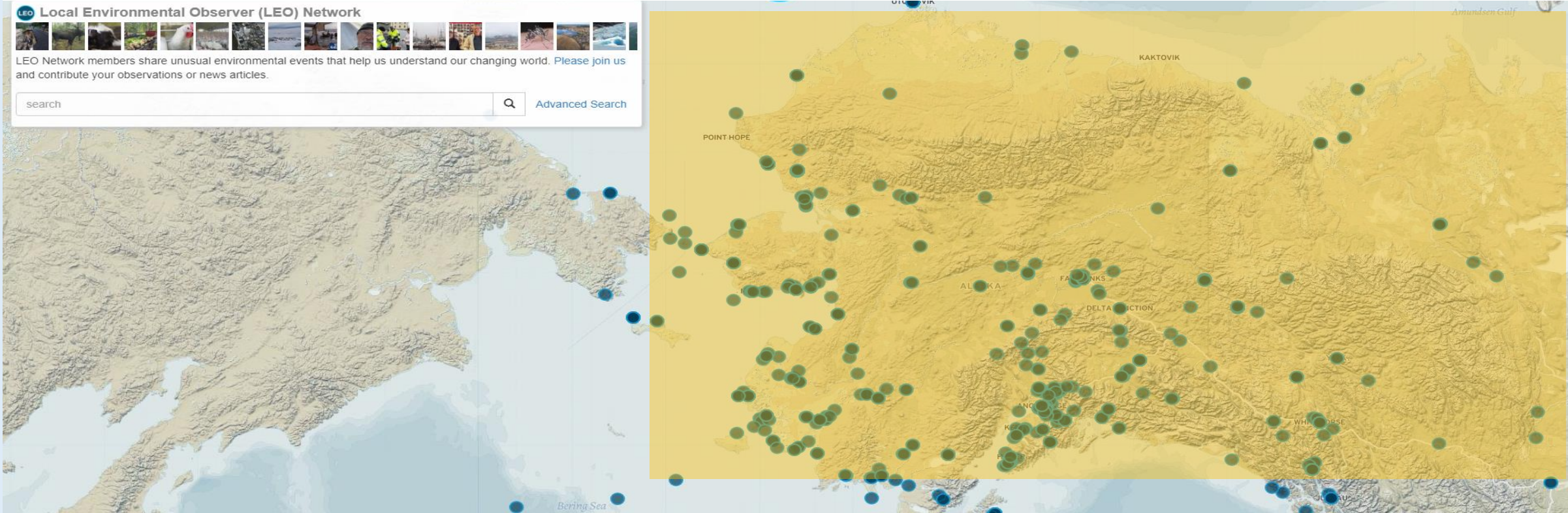
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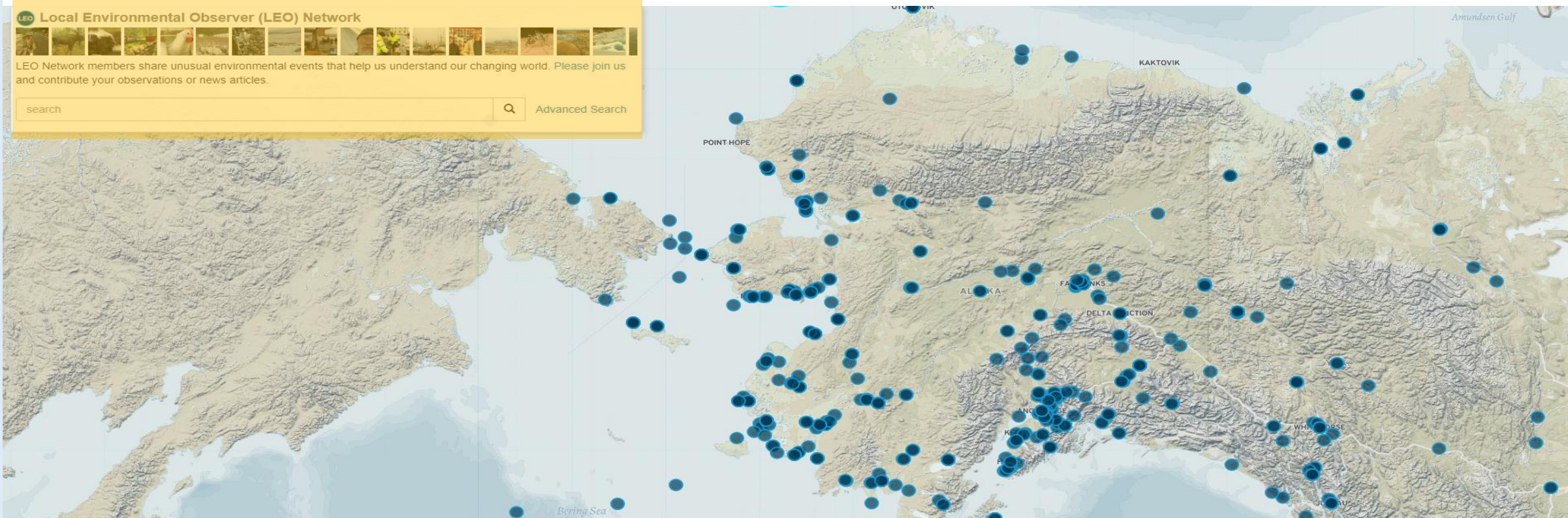
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search  Advanced Search





# Demonstration: LEO Observation

The screenshot displays the LEO Network website interface. At the top, a navigation bar includes a home icon, a dropdown menu for "Explore Posts", and links for "Submit a Post", "Directory", "Library", and "About". The LEO Network logo is centered in the navigation bar. On the right, there is a user profile section with a smiley face icon, "Your Name", and a language dropdown set to "English".

Below the navigation bar, a sidebar on the left contains several sections: "Local E" with a search box, "LEO Network m and contribute y", "Posts by Topic" (listing Weather, Ocean / Sea, Plants / Kelp, Human Health, Buildings), "Posts by Date" (listing Past Week, Past Month, Past Year), and "Posts by Season" (listing Winter, Spring, Summer, Fall). A "More Topics" link is also present.

The main content area features a map of Alaska with numerous blue circular markers indicating observation points. Labels on the map include "POINT HOPE", "ALASKA", "FAIRBANKS", "DELTA DIVISION", "KAKTOVIK", "WHITKORSE", and "Bering Sea". A search bar with the text "Advanced Search" is located above the map. A small text box above the map reads "rk help us understand our changing world. Please join us".





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# Demonstration: LEO Observation


The screenshot displays the LEO Network website interface. At the top, a dark navigation bar includes a home icon, dropdown menus for 'Explore Posts', 'Submit a Post', 'Directory', 'Library', and 'About', the LEO NETWORK logo, a user profile icon labeled 'Your Name', a language dropdown for 'English', and a search icon. Below the navigation bar, the main content area is divided into three sections. On the left, the 'Local Environmental Observer (LEO) Network' section features a row of small images and a search bar. The middle section is a vertical sidebar with a white background and a thin border, containing six categories: 'Background Articles', 'Northern Climate Observer Newsletter', 'Webinar Recordings', 'News Sources', 'LEO in the News & Research', and 'One Health Group'. On the right, a large map of Alaska is shown with numerous blue circular markers indicating observation locations. Labels on the map include 'KAKTOVIK', 'ALASKA', 'FAIRBANKS', 'DELTA DIVISION', 'WHITKORSE', and 'KOTIKOVIK'. The bottom of the page features a blue footer with the LEO NETWORK logo on the left, the text 'LEO: The Local Environmental Observer Network | www.leonetwork.org' in the center, and the Alaska Native Tribal Health Consortium logo and name on the right.






# Demonstration: LEO Observation

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search  [Advanced Search](#)





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 [Advanced Search](#)





# Demonstration: LEO Observation

The screenshot displays the LEO Network website interface. At the top, a navigation bar includes links for Home, Explore Posts, Submit a Post, Directory, Library, and About, alongside the LEO Network logo. A user profile dropdown menu is open, showing options: My LEO, My Maps, My Community, Messages, Editor, and Sign Out. The main content area features a header for the Local Environmental Observer (LEO) Network, a search bar, and a map of Alaska with numerous blue circular markers indicating observation locations. Labels on the map include POINT HOPE, KAKTOVIK, ALASKA, FAIRBANKS, DELTA DIVISION, and WHITKORSE. The Bering Sea is labeled in the bottom left corner.





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The screenshot displays the LEO Network website interface. At the top, a dark navigation bar contains a home icon, dropdown menus for 'Explore Posts', 'Submit a Post' (highlighted in gold), 'Directory', 'Library', and 'About', the LEO NETWORK logo, a user profile icon labeled 'Your Name', a language dropdown set to 'English', and a search icon. Below the navigation bar, the main content area is divided into three vertical sections. The leftmost section features a 'Local Environmental Observer' header with a row of small images and a search input field. The middle section contains three white boxes with the following text: 'Submit your Own Event Observation: Have you observed an unusual environmental or climate event in your area? Please share it with us.', 'Submit an Event Article: Has your local news media reported on an unusual environmental or climate event? Please let us know.', and 'Submit a Background Article: Please share background (non-event) articles with us.'. The rightmost section shows a topographic map of Alaska with numerous blue circular markers indicating observation locations. Labels on the map include 'KAKTOVIK', 'ALASKA', 'FAIRBANKS', 'DELTA DIVISION', 'WHITCOMB', and 'KOTEAU'. The map also shows 'Armdnsen Gulf' and 'Bering Sea'.





# Demonstration: LEO Observation

The screenshot shows the LEO Network website interface. At the top, there is a navigation bar with links for 'Explore Posts', 'Submit a Post', 'Directory', 'Library', and 'About'. The LEO Network logo is centered in the navigation bar. On the right, there is a user profile section with a yellow smiley face icon, the text 'Your Name', and a dropdown arrow, followed by 'English' and another dropdown arrow, and a search icon.

Below the navigation bar, there is a 'Local Environmental Observer' section on the left with a search bar. The main content area features three stacked boxes:

- Submit your Own Event Observation**  
Have you observed an unusual environmental or climate event in your area? Please share it with us.
- Submit an Event Article**  
Has your local news media reported on an unusual environmental or climate event? Please let us know.
- Submit a Background Article**  
Please share background (non-event) articles with us.

On the right side of the page, there is a map of Alaska with numerous blue circular markers indicating observation locations. Labels on the map include 'KAKTOVIK', 'ALASKA', 'FAIRBANKS', 'DELTA DIVISION', 'WHITFIELD', and 'KOTIKO'. The map also shows geographical features like 'Armdnsen Gulf' and 'Bering Sea'.





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- Submit your Own Event Observation**: Have you observed an unusual environmental or climate event in your area? Please share it with us.
- Submit an Event Article**: Has your local news media reported on an unusual environmental or climate event? Please let us know.
- Submit a Background Article**: Please share background (non-event) articles with us.





# Demonstration: LEO Observation

Home Explore Posts Submit a Post Directory Library About LEO NETWORK Your Name English

**Local Environmental Observer**  
LEO Network members share unusual environmental observations and contribute your observations or news articles.  
search

**Submit your Own Event Observation**  
Have you observed an unusual environmental or climate event in your area? Please share it with us.

**Submit an Event Article**  
Has your local news media reported on an unusual environmental or climate event? Please let us know.

**Submit a Background Article**  
Please share background (non-event) articles with us.

Map labels: KAKTOVIK, ALASKA, FAIRBANKS, DELTA DIVISION, WHITCOMB, JUNEAU, Bering Sea, Amundsen Gulf





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Below the navigation bar, there is a 'Local Environmental Observer' section with a search bar and a grid of small images. To the right of this section is a large map of Alaska with numerous blue circular markers indicating observation locations. Labels on the map include 'KAKTOVIK', 'ALASKA', 'FAIRBANKS', 'DELTA DIVISION', 'WHITKORSE', and 'KOTEAU'. The Bering Sea and Amundsen Gulf are also labeled.

Overlaid on the map is a yellow box with the following text:

**Submit your Own Event Observation**  
Have you observed an unusual environmental or climate event in your area? Please share it with us.

Below this is a white box with the following text:

**Submit an Event Article**  
Has your local news media reported on an unusual environmental or climate event? Please let us know.

Below that is another white box with the following text:

**Submit a Background Article**  
Please share background (non-event) articles with us.





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- Submit your Own Event Observation**: Have you observed an unusual environmental or climate event in your area? Please share it with us.
- Submit an Event Article**: Has your local news media reported on an unusual environmental or climate event? Please let us know.
- Submit a Background Article**: Please share background (non-event) articles with us.

To the right of these sections, a white box lists the required fields for an observation:

- Headline (Title)
- Date
- Description
- Photos (If Applicable)
- Categories\*

The categories listed are:

- Natural Environment
- Unusual or Unexpected
- Impact on Human Environment

A note at the bottom of the categories box states: *\* Categories are not required for an event observation, but are a great way to connect other observations across the LEO Network*

The background of the screenshot shows a map of Alaska with several blue dots indicating observation locations. Labels on the map include 'Armundsen Gulf' and 'Bering Sea'.





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Advanced Search





# Demonstration: LEO Observation

MY LEO / SUBMIT OBSERVATION

	Approved	Under Review	Draft or Pending
_Home	3270	1	14
ANTHC	2001	3	6
APU	64	0	4
Informational Articles	796	0	5

Search Posts

## Most Recent Updates



Webinar ANTHC Submitted for Publishing

Submitted for Publishing by Lars Flora on 31 Jul 2023

### July 2023 Training: Making your first LEO Observation

AUG 1, 2023



Event Observation \_Home Draft

Media Updated by Mike Brubaker on 31 Jul 2023

### Salmon berries are a month late

Seldovia Village, Alaska, United States

AUG 10, 2023

EVENT



Background Article \_Home Pending Review

Submitted to Hub by Lars Flora on 31 Jul 2023





# Demonstration: LEO Observation



Kotzebue, Alaska, United States  
N 66° 54' 22.16" W 162° 36' 44.981"  
Nearby

*It has been some years since we have had a long storm. March 6 marks the 3rd day and there have been no jets or small planes flying.*


Observation by Jimmy Evak:





It has been some years since we have had a long storm. March 6 marks the 3rd day and there have been no jets or small planes flying.

Comment by Rick Thoman:

A series of storms brought heavy precipitation to western and Northwest Alaska. Some of the moisture came from the subtropical Pacific west of Hawai'i. Kotzebue set new records for highest 24-hour precipitation in March (0.73 inches March 4-5th is) and the highest 3-day precipitation 1.27 inches March 4-6. This appears to be the largest series of early spring storms (in terms of how much precipitation) since March 2009. I've got a Substack post up on this event in western Alaska here.

Follow My Maps Share Add Comment Edit

- ### Contributing Members
-  **Jimmy Evak** Observer  
Kotzebue, Alaska, United States  
[Send Message](#)
  -  **Richard L Thoman Jr** Consultant  
Fairbanks, Alaska, United States  
**Alaska Center for Climate Assessment and Policy (ACCAP)**  
[Send Message](#)

- ### See Also
-  **Blizzard batters Northwest Alaska, causing infrastructure problems**  
Kotzebue, Alaska, United States  
MAR 7, 2023  
[BACKGROUND](#)
  -  **Back-to-back blizzards hit region with high winds and snow**  
Nome, Alaska, United States  
MAR 4, 2023  
**The Nome Nugget** EVENT
  -  **Atmospheric rivers are hitting the Arctic more often, and increasingly melting its sea ice**  
Arctic  
FEB 6, 2023  
**ArcticToday** BACKGROUND
  -  **Blizzardy March buries Nome in lots of snow**  
Nome, Alaska, United States  
APR 10, 2021  
**The Nome Nugget** EVENT



# Activity

# Scenarios on Handout

LEO Observation: Better to Best



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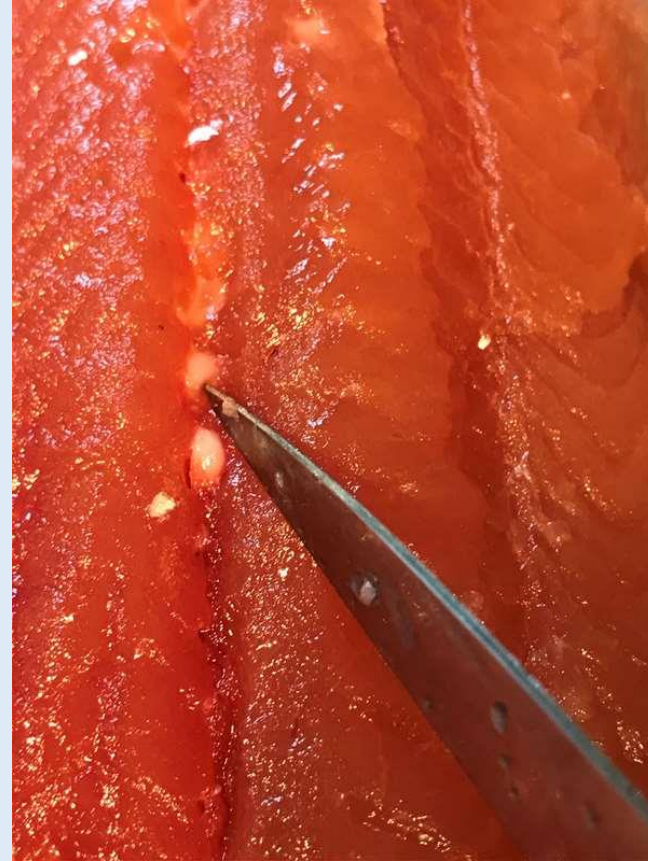


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## Making an Observation: Better to Best

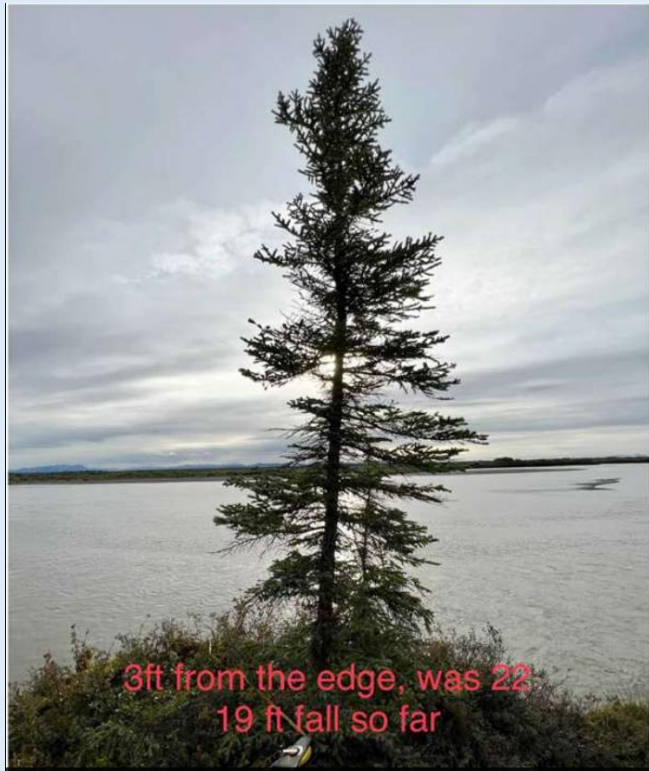


### Observation #1

The first salmon I caught this year had what appears to be tapioca disease. So far it's the only one we've seen this year, and we did not see it at all last year.

# LEO Training

## Making an Observation: Better to Best



### Observation #2

Heavy rains have elevated river levels throughout August and September. High water continues to erode the river bank in the community. The photos show a tree that was 22 feet from the edge is now 3 feet. Total erosion has reached 91 ft. by old landfill and new mark shows 112 ft. marker.



# LEO Training

## Making an Observation: Better to Best



### Observation #3

This season we have observed many salmonberry bushes that appear to be defoliated. It seems something is eating the leaves. We have also noticed the berries look sickly. They are red but hard and almost burnt looking. They appear this way on otherwise healthy looking bushes and defoliated bushes. We usually see some like this every year but they are abundant this year.

# LEO Training

## Making an Observation: Better to Best



### Observation # 4

A Beluga Whale, a marine mammal usually found in coastal/oceanic waters, was seen in the Yukon River, 16 miles above Tanana, Alaska—some 600 miles from where the river empties into the Bering Sea. Post made in collaboration with Joyce Harper Roberts, who made the observations and provided the videos of the sighting.



# Discussion Scenarios on Handout

LEO Observation: Better to Best



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# LEO Training

## Making an Observation: Better to Best

- What did you learn in your group?
- What were some barriers or obstacles to your scenario?
- Final thoughts?







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