



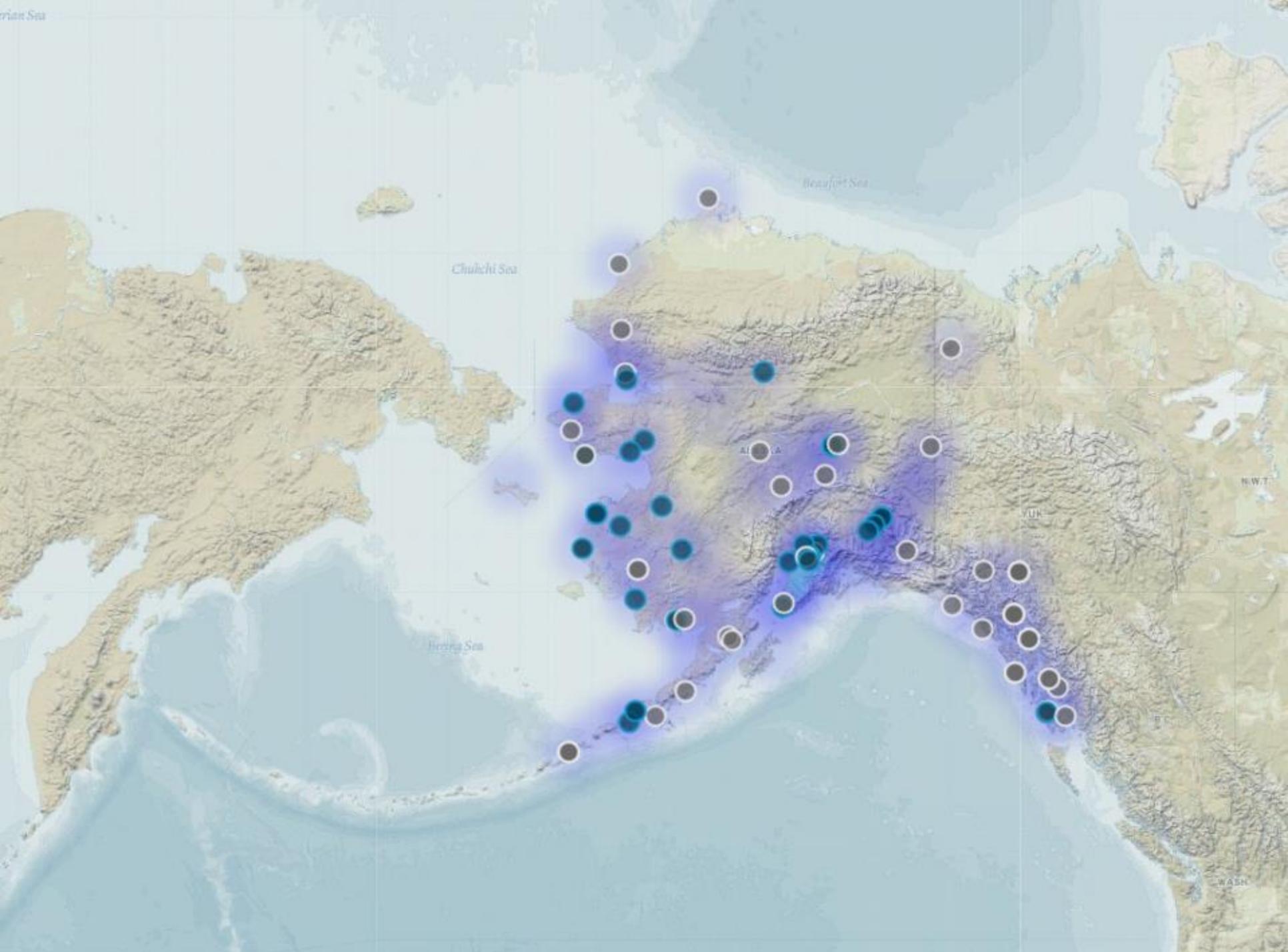
Local Environmental Observer Network 2020 Event Review

Alaska Tribal Conference on Environmental Management (ATCEM)
December 15, 2020

Mike Brubaker
Department of Community Environment and Health, ANTHC



ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM

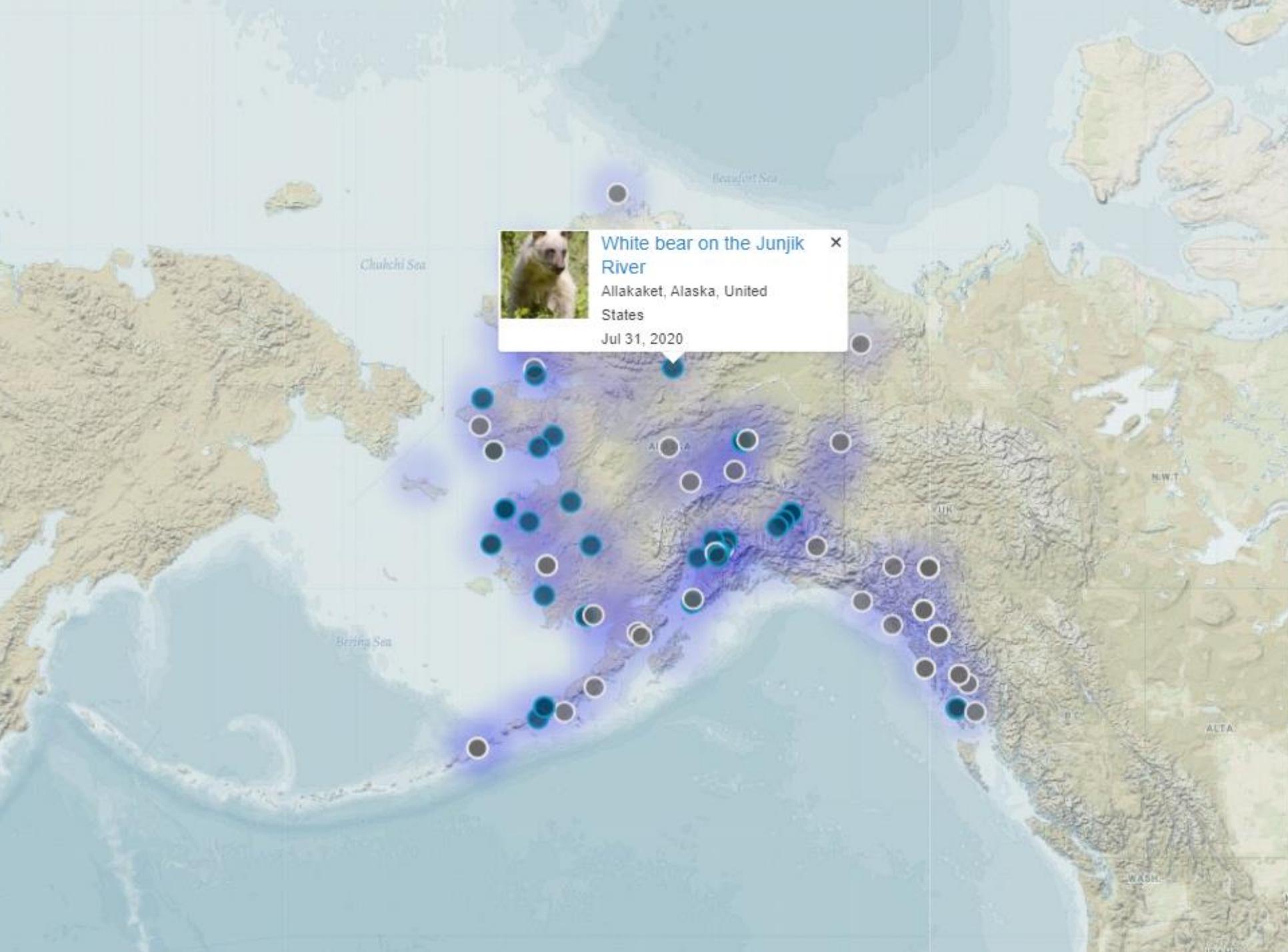


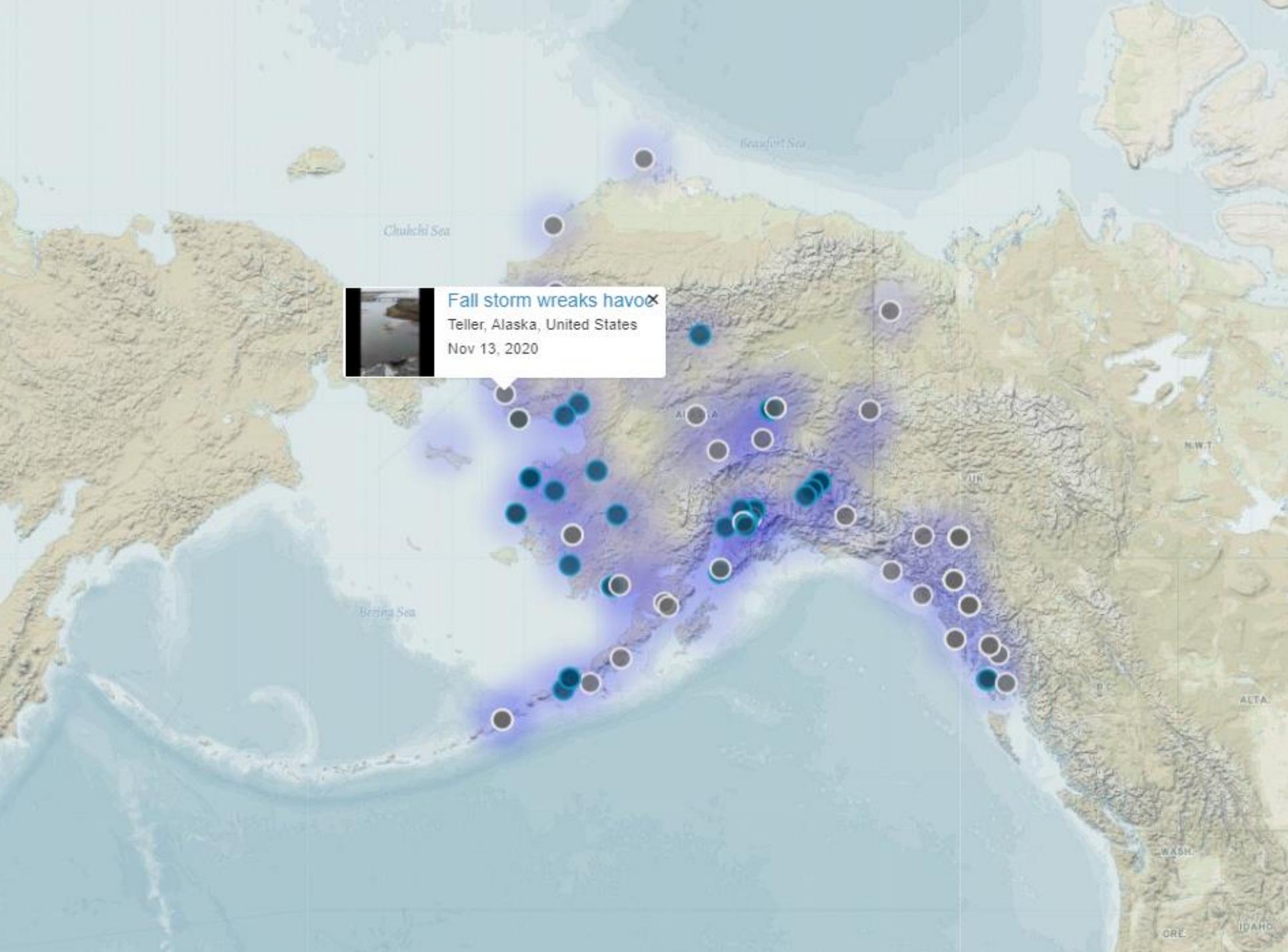


White bear on the Junjik River

Allakaket, Alaska, United States

Jul 31, 2020

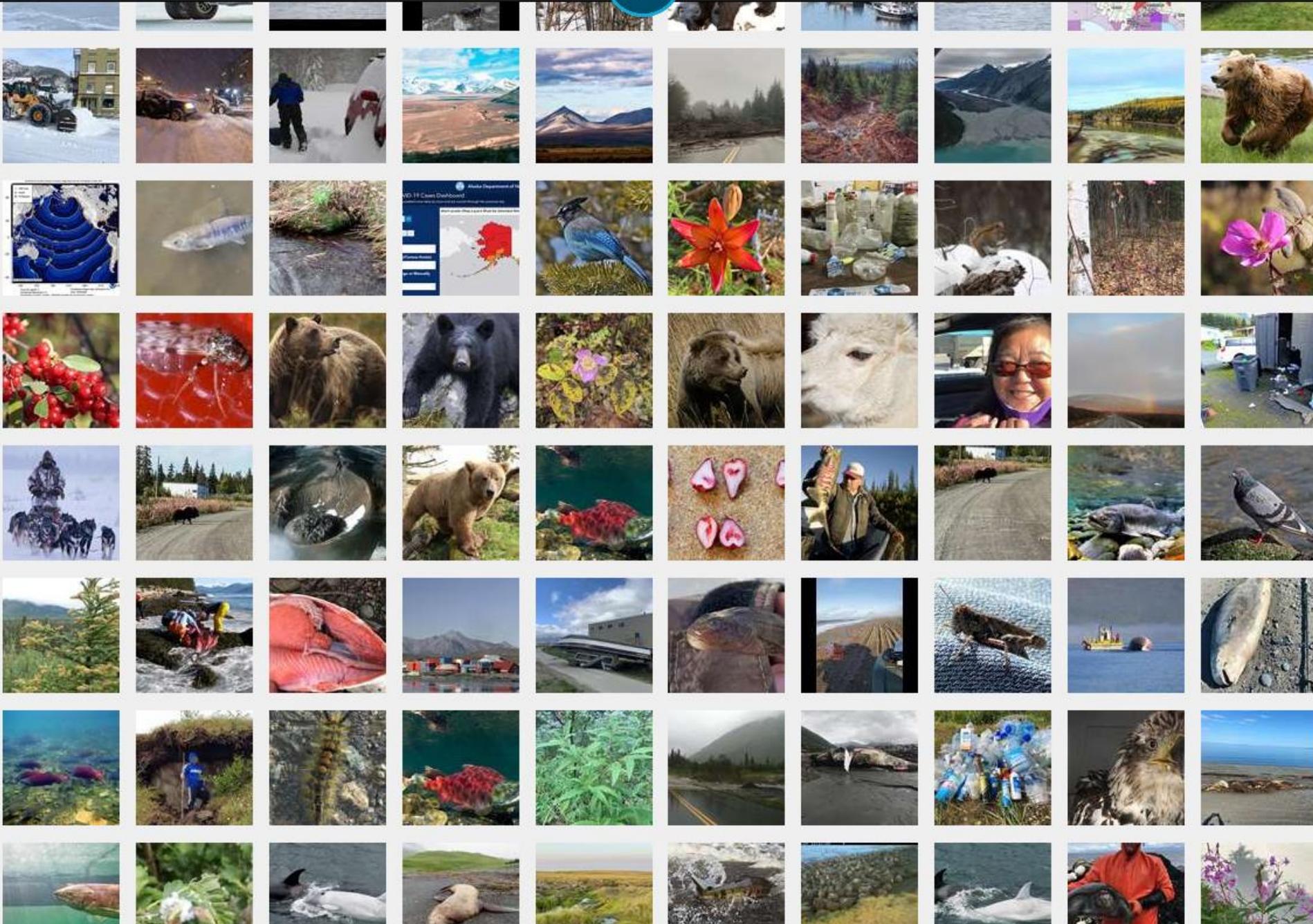


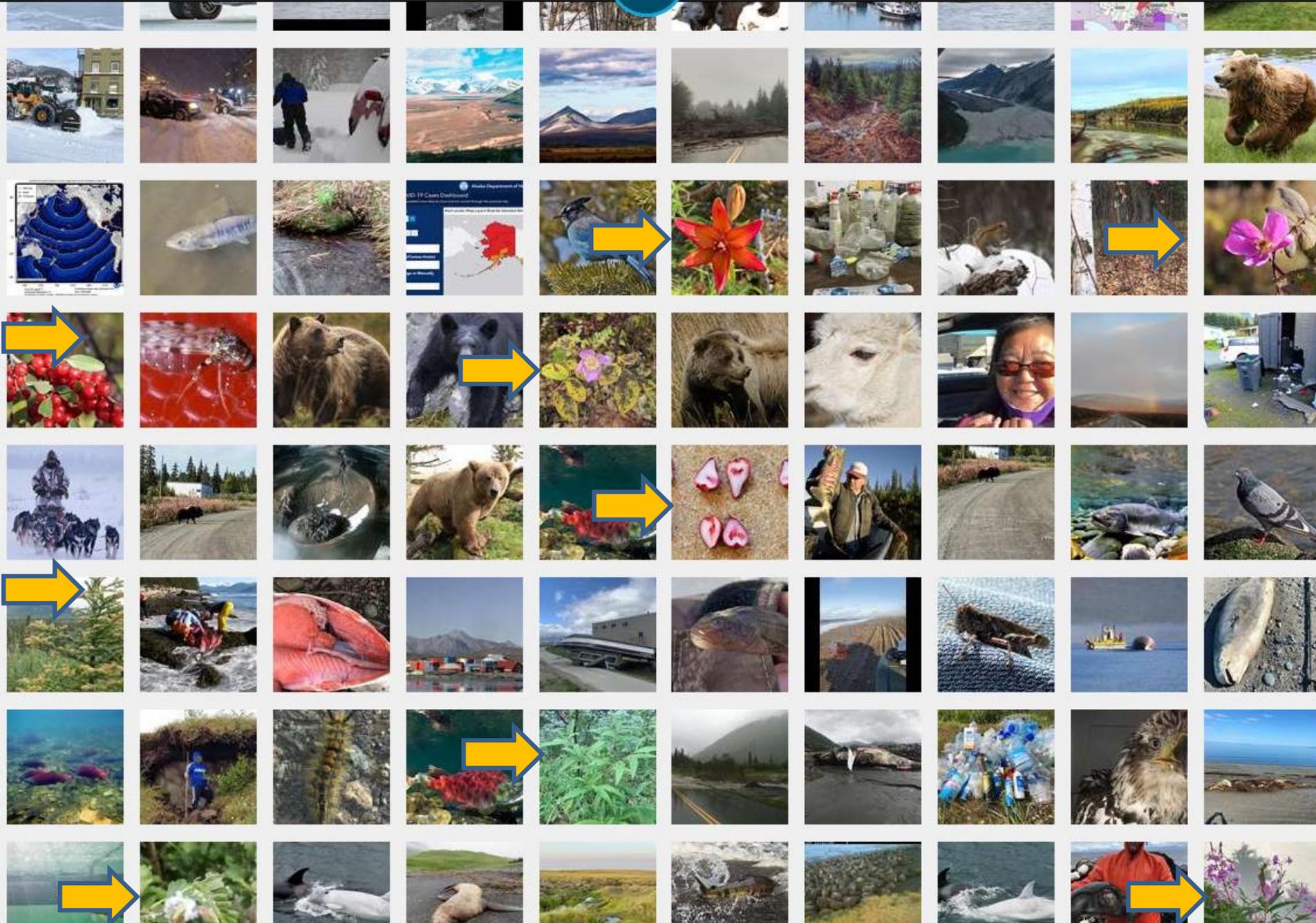


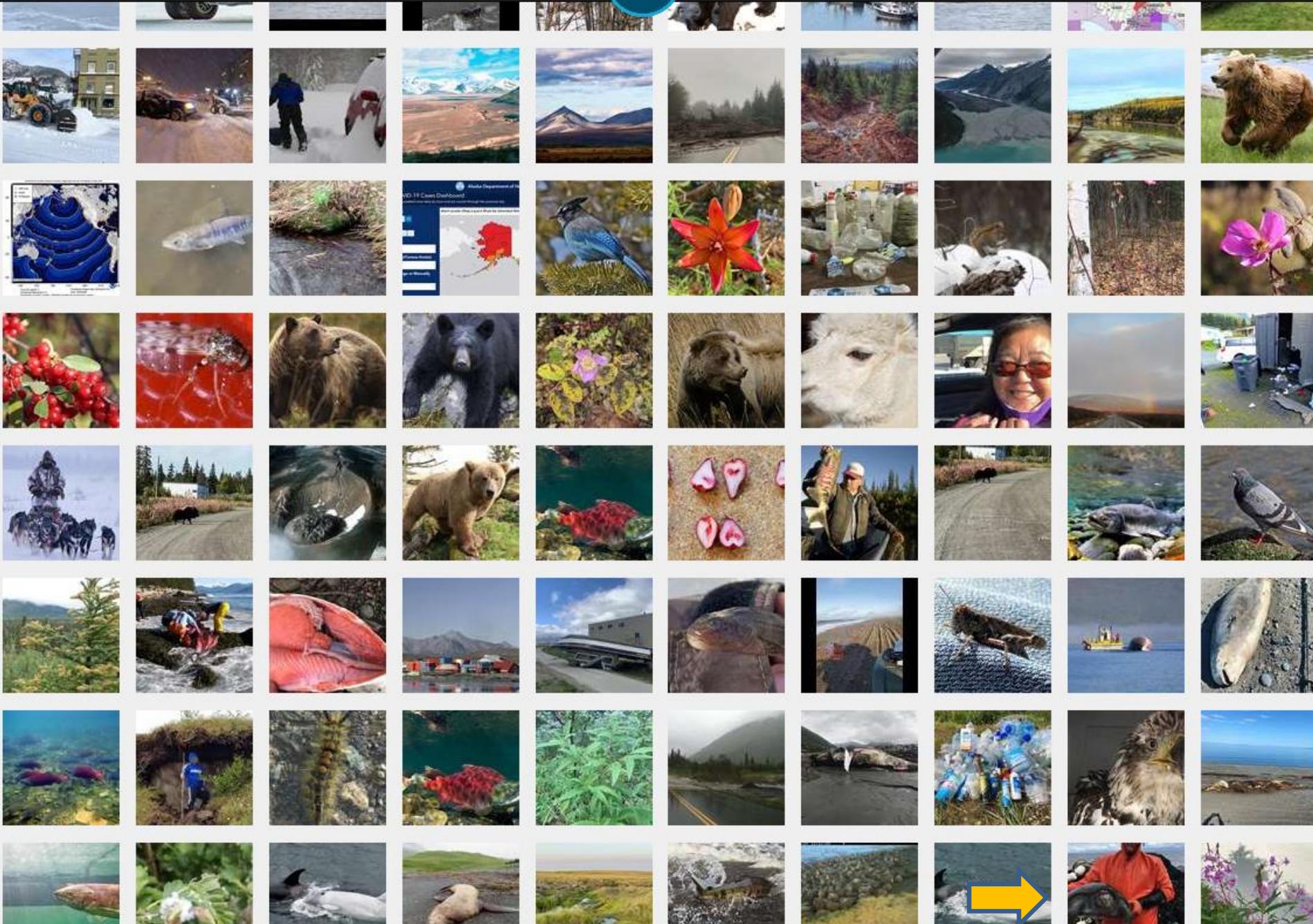
Fall storm wrecks havoc

Teller, Alaska, United States

Nov 13, 2020







Seiners in Southeast Alaska rescue an unlikely hard-shelled visitor

By Maria Dudzak, KRBD - Ketchikan - August 10, 2020



Fisherman Ben Dolph and the green sea turtle he rescued before it could get tangle in a net (Photo credit Jes Boyd).

A fishing crew near Prince of Wales Island recently made an unusual catch: a sea turtle. This not only excited the crew, but has also caught the attention of marine biologists

Listen / Watch

 [Radio: Listen to KSKA Live](#)

 [TV: Watch KAKM Live](#)

 [TV: Watch 360 North Live](#)

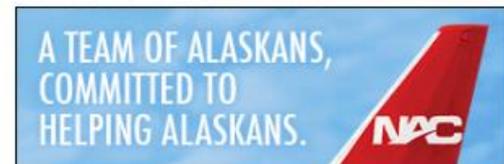
 [TV: Watch PBS KIDS 24/7 Live](#)

 [Video On-Demand](#)

 [TV Schedules](#)

 [Radio Schedule](#)

Thanks To Our Sponsors



AUGUST 24, 2015

Leatherback (*Dermochelys coriacea*) Sighted



Leatherback turtle. Photo USFWS



Southeast Region, Alaska, United States

📍 N 55° 49' 9.925" W 133° 45' 5.438"

🔍 Nearby



Naomi Bargmann Observer

A salmon troller saw a leatherback turtle in the summer of 2015.

Observation: I spoke with a salmon troller who saw a leatherback turtle (*Dermochelys coriacea*) in the summer of 2015. He recently gave me the date of the sighting and the coordinates. Leatherback turtles are known to be in this area, but it is a rare sighting.

Resource:

[Alaska Department of Fish & Game](#) – "Feeding Ecology - Leatherback sea turtles



View Options ▾



 List

 Map

 Thumbnails

 Slideshow

 Timeline

 Stats

31

 Watch These Results

26

 Add to map

26

 Share Search Results

25

 Download Search Results

24



Enter Search Terms

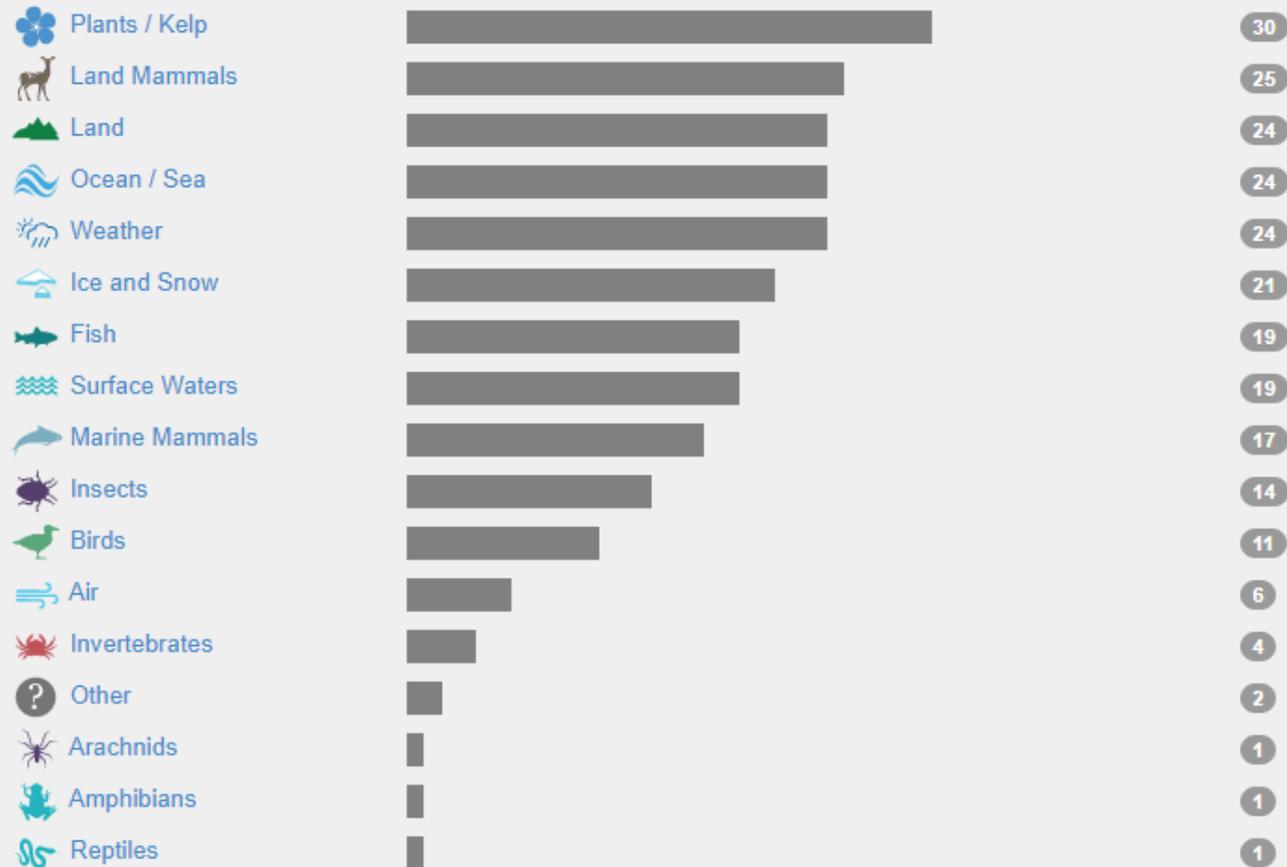


View Options ▾

Topics: All ▾ Date: 2020 ▾ Region: Alaska ▾ Type: All ▾

197 Posts

Natural Environment



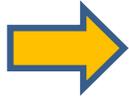
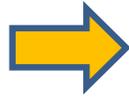
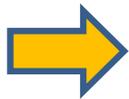
Natural Environment

What aspects of the **natural environment** are relevant to this post? Choose all that apply.

 
Weather 
Ocean / Sea 
Surface Waters 
Groundwater 
Ice and Snow 
Land 
Air 
Atmosphere 
Plants / Kelp 
Fish 
Marine Mammals 
Land Mammals 
Birds 
Invertebrates 
Insects 
Arachnids 
Reptiles 
Amphibians 
Fungi 
Microbes 
Other

Unusual or Unexpected Event

Why is this post unusual or unexpected? What about this event deviates from the norm?

 
Extreme Temperature 
Extreme Precipitation 
Extreme Wind 
Death / Die-off / Decline 
Deformity / Disease / Injury 
Unusual Range / Sighting 
Unusual Size / Abundance 
Infestation 
Seasonal Timing 
Unusual Animal Behavior 
Flooding / Draining 
Wildfires 
Erosion 
Landslide / Avalanche 
Pollution 
Debris / Trash 
Drought 
Algal Bloom 
Cyclone / Hurricane 
Thunderstorm 
Storm Surge 
Earthquake 
Volcano 
Sea/Land Level Change 
Permafrost Change 
Pathogen 
Sinkhole / Crater 
Rain on Snow 
Other Event

Impact on Human Environment

How has the **human environment** been impacted by the event described in this post?



<input type="checkbox"/>  Health	<input type="checkbox"/>  Safety	<input type="checkbox"/>  Infrastructure	<input type="checkbox"/>  Transportation	<input type="checkbox"/>  Energy
--	--	---	--	--

<input type="checkbox"/>  Sanitation	<input type="checkbox"/>  Economic Impact	<input type="checkbox"/>  Cultural Impact	<input type="checkbox"/>  Sports / Recreation	<input type="checkbox"/>  Food Security
--	---	--	---	---



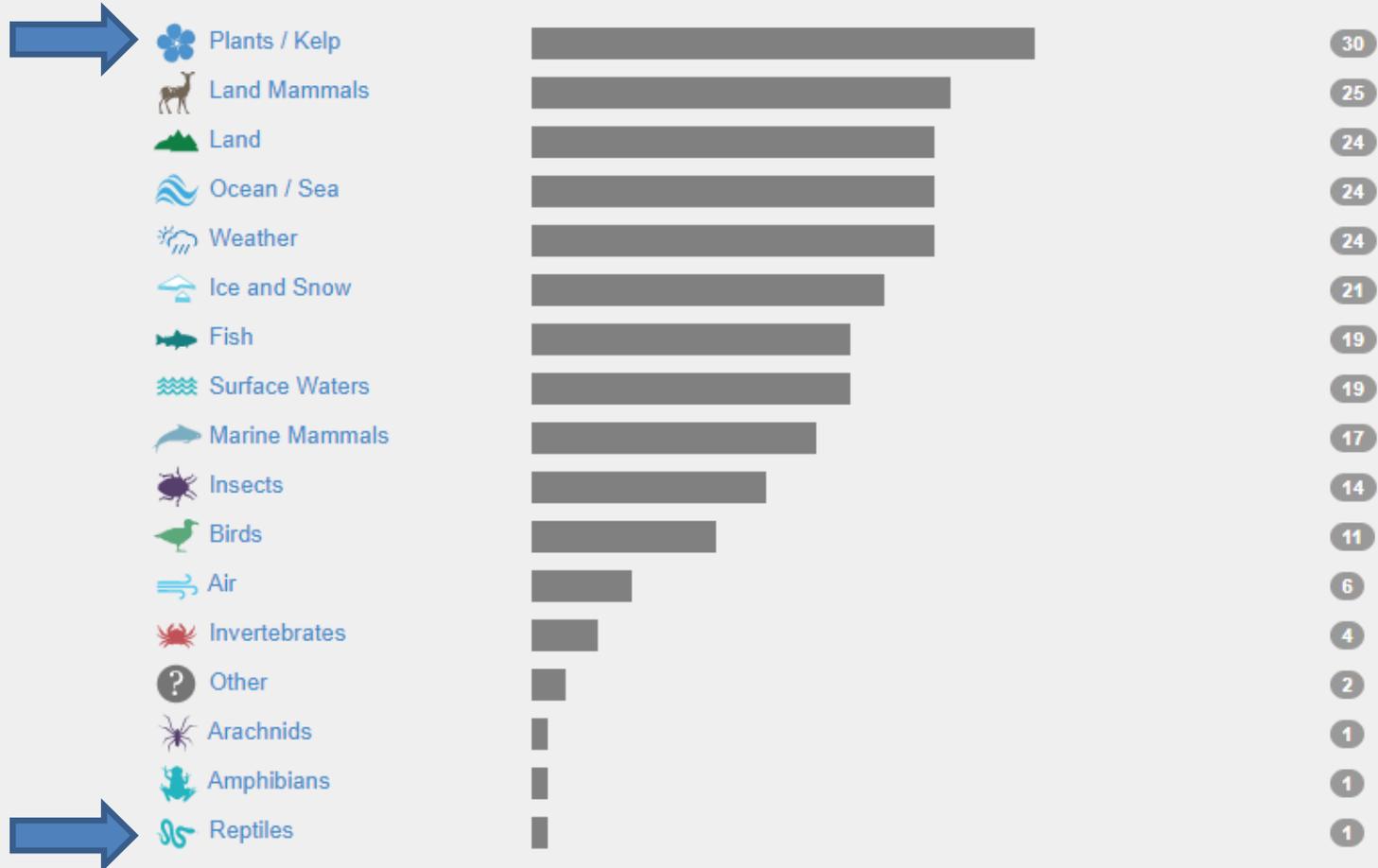
<input type="checkbox"/>  Water Security	<input type="checkbox"/>  Air Quality	<input type="checkbox"/>  Harvest Change	<input type="checkbox"/>  Agriculture	<input type="checkbox"/>  Aquaculture
--	---	---	---	---

<input type="checkbox"/>  Livestock	<input type="checkbox"/>  Pets	<input type="checkbox"/>  Displacement	<input type="checkbox"/>  Forestry	<input type="checkbox"/>  Burial Site
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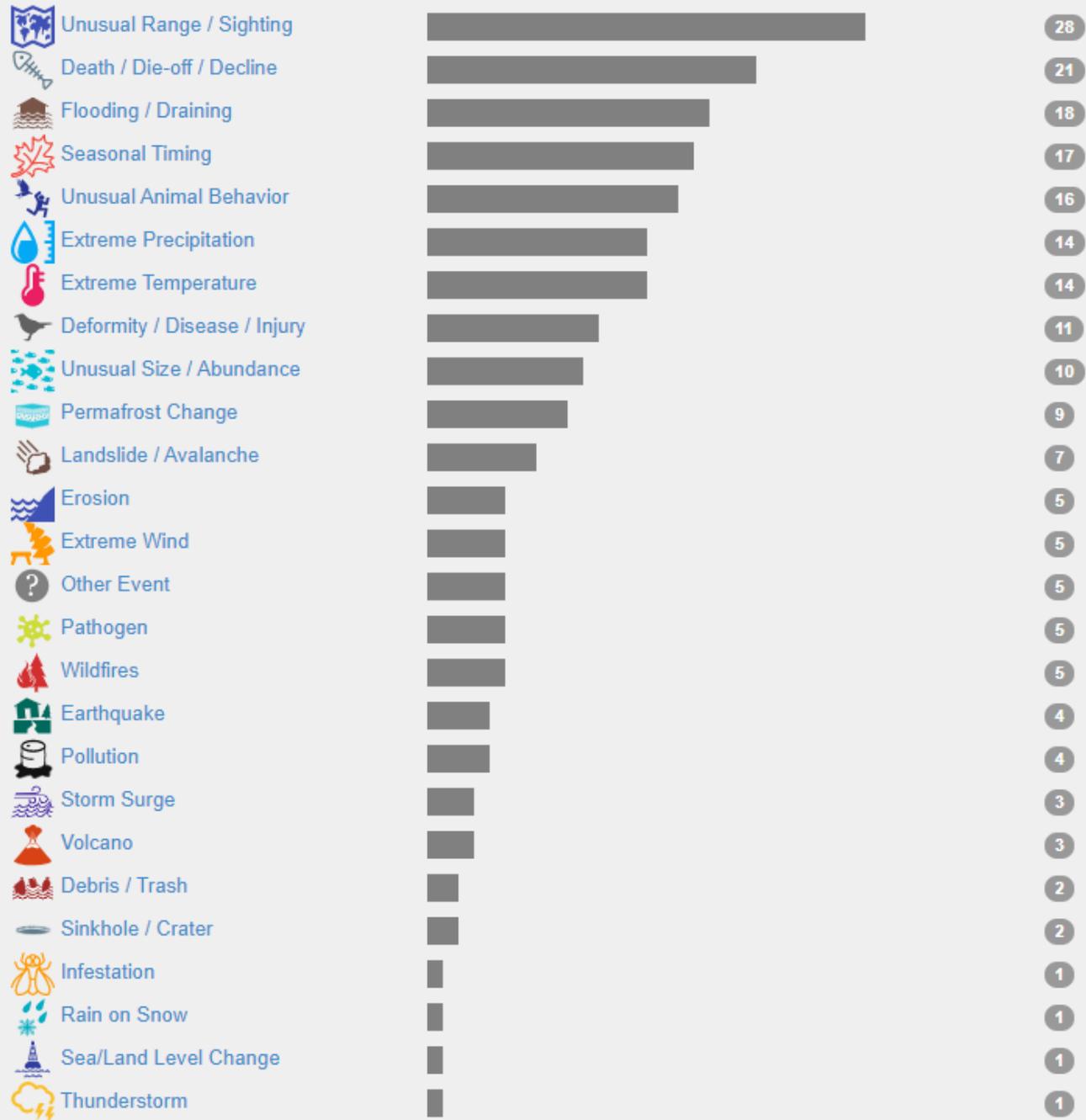
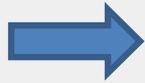


<input type="checkbox"/>  Fisheries	<input type="checkbox"/>  Other Impact
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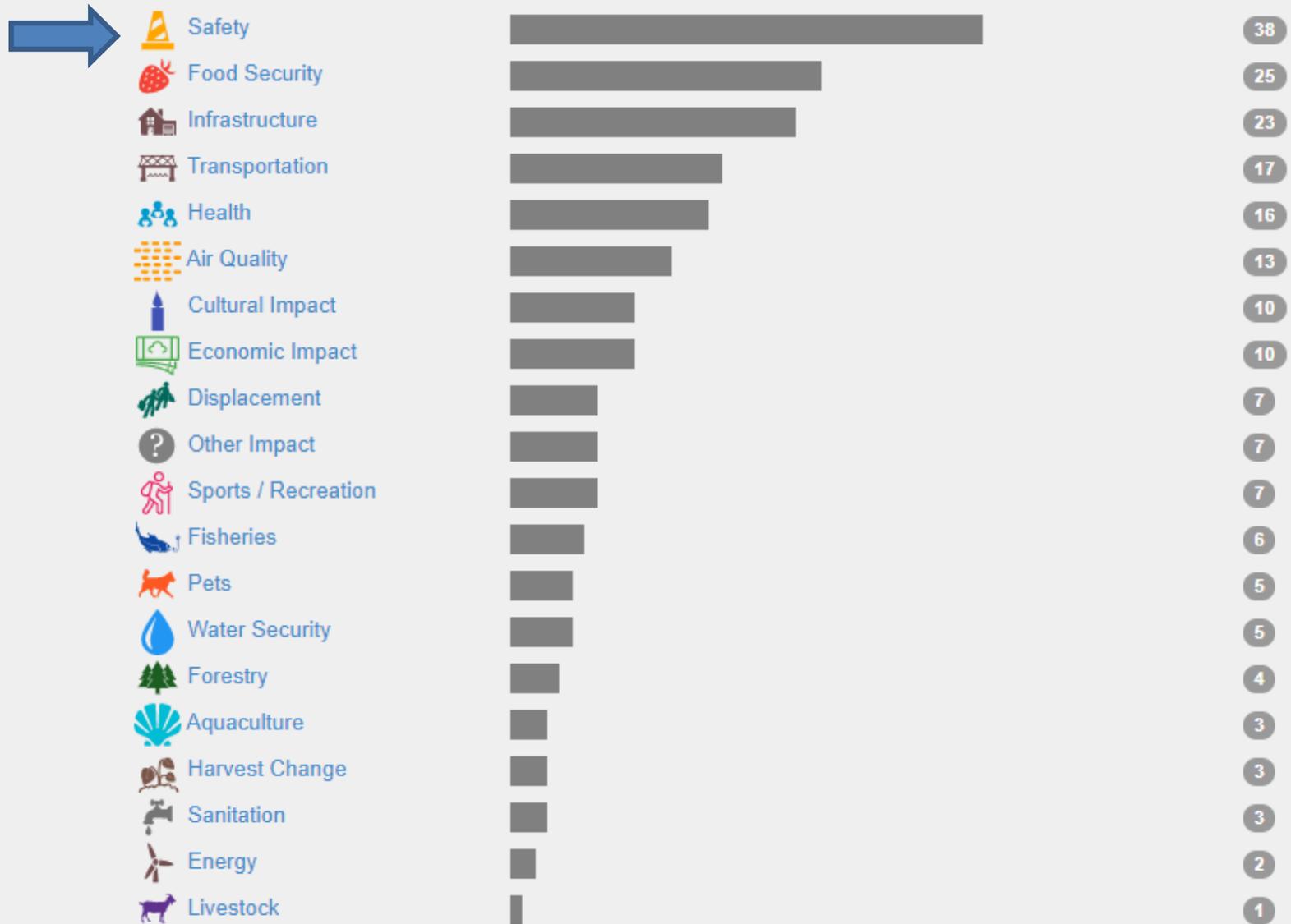
Natural Environment



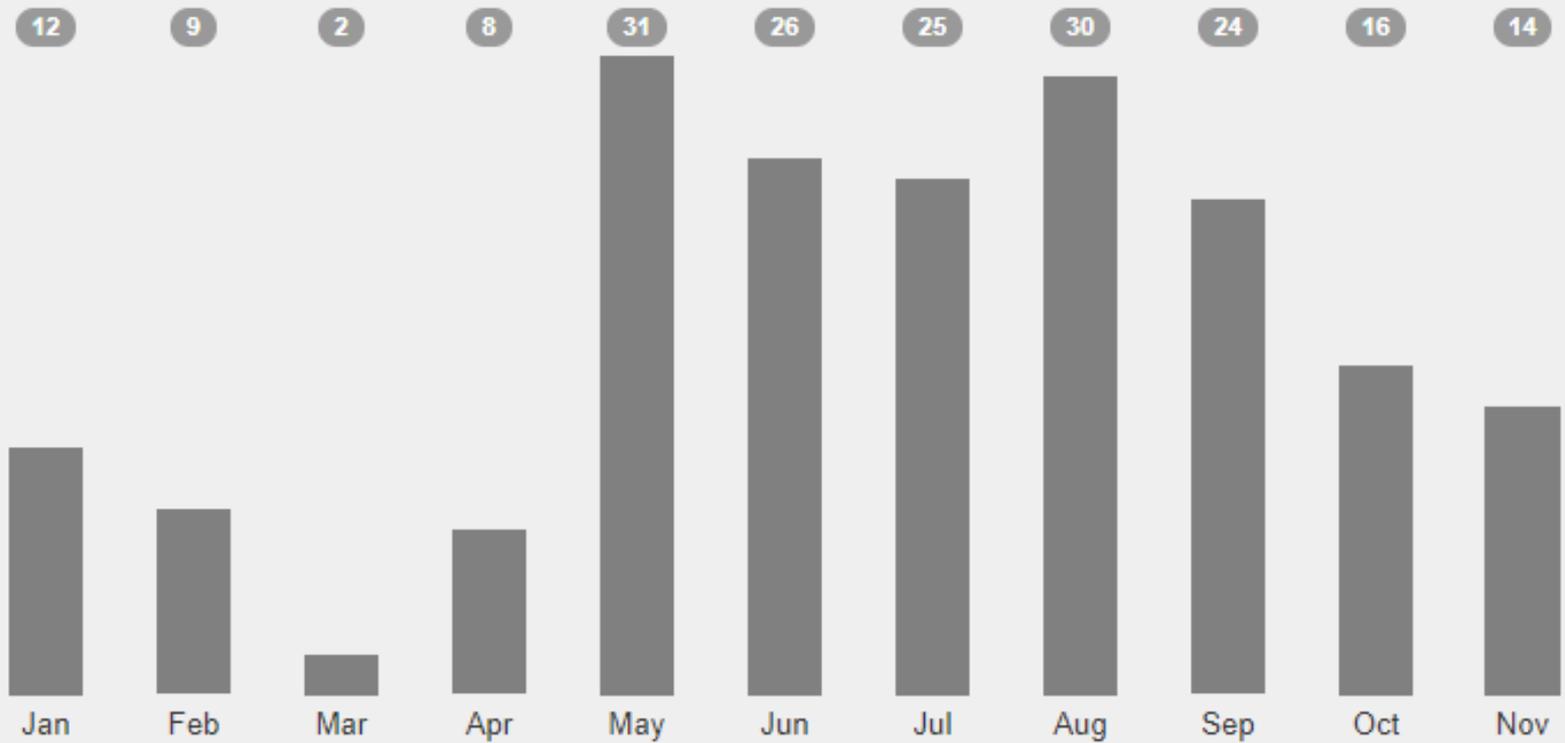
Unusual or Unexpected Event



Impact on Human Environment



Month

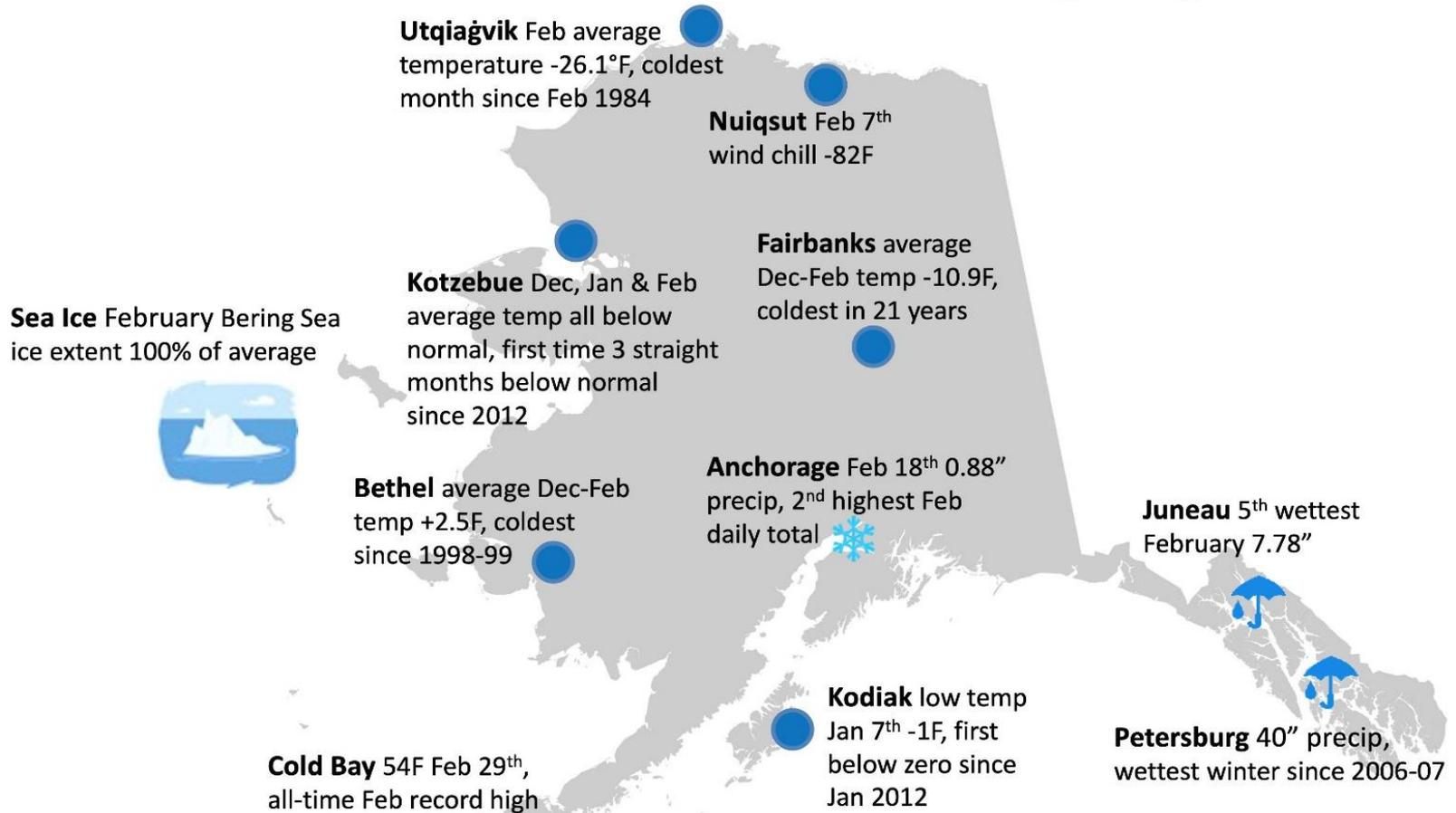


Season



Winter 2019-20

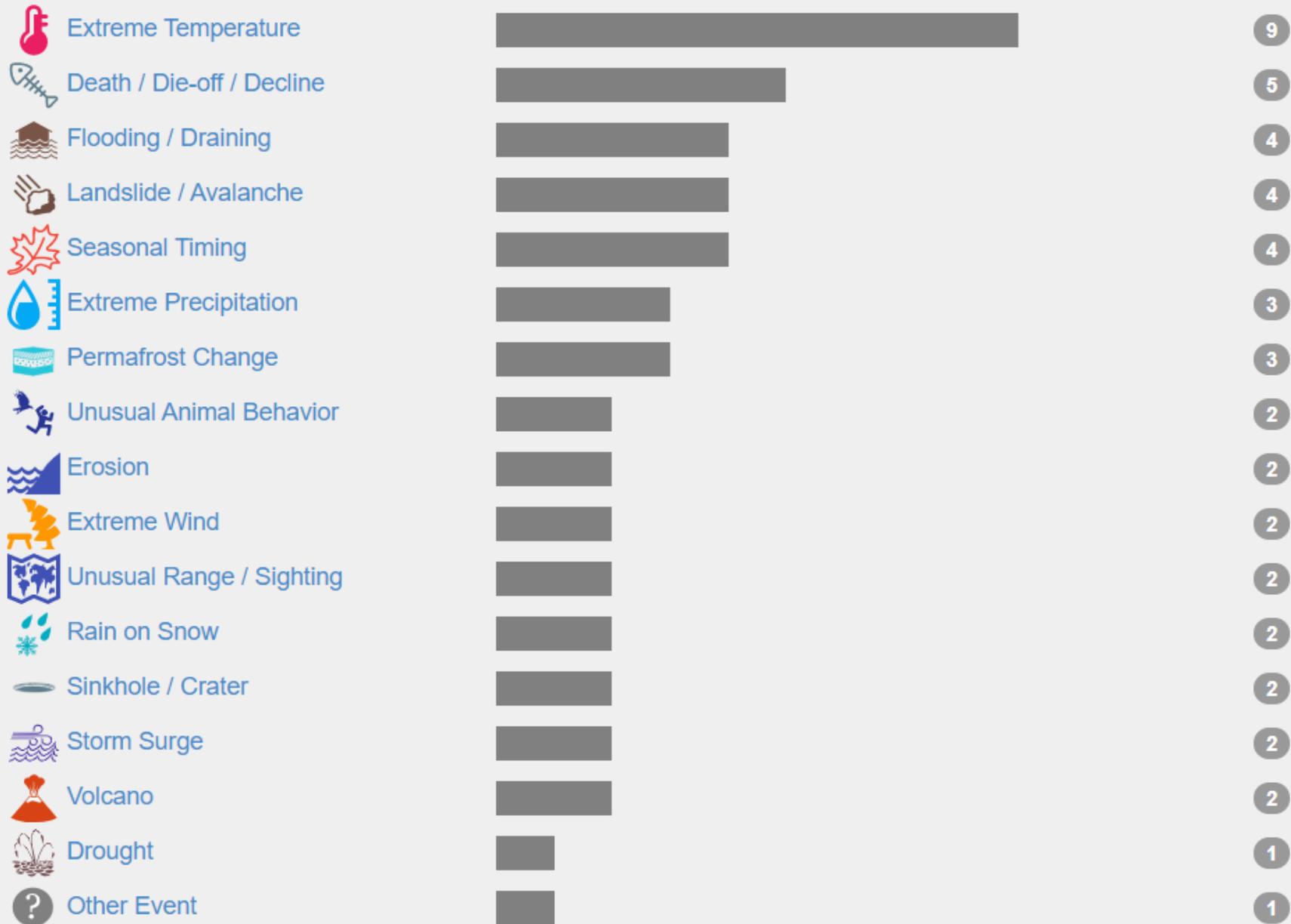
Alaska Weather & Climate Highlights



Topics: All ▾ Date: 12/1/2019-2/28/2020 ▾ Region: Alaska ▾ Type: All ▾



Unusual or Unexpected Event

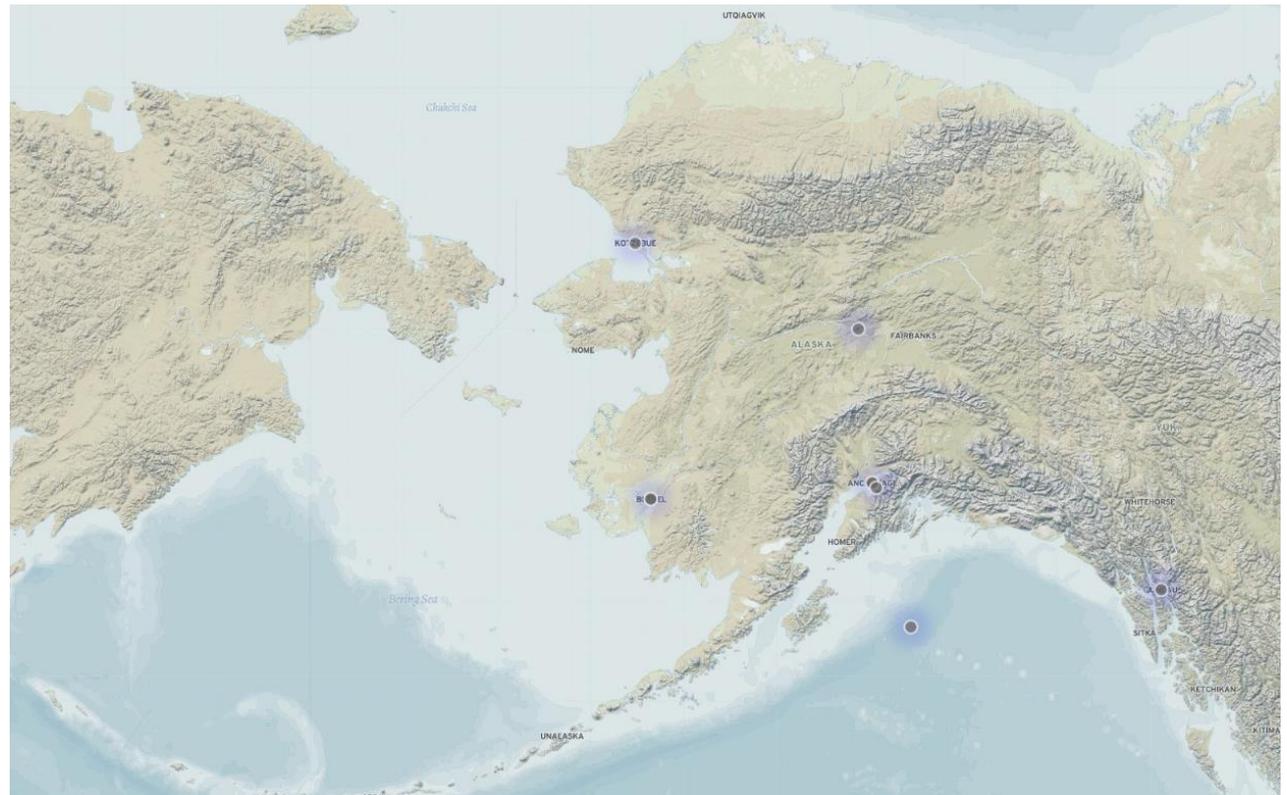
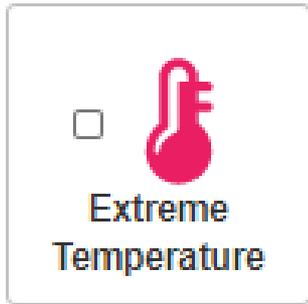


Topics: Extreme Temperature ▾

Date: 12/1/2019-2/28/2020 ▾

Region: Alaska ▾

Type: All ▾



+ My Maps

DECEMBER 3, 2019

Ice Fog (Low Visibility) = Cancelled Flights



John Henry



Unalakleet, Alaska, United States

📍 N 63° 52' 23.016" W 160° 47' 17.016"

🔍 Nearby



John Henry Observer



Richard L Thoman Jr Consultant

Open water over the ocean creates conditions that lead to hoar frost and rime ice. These conditions impact travel and are expected to become more common as ice forms later in Norton Sound.

Observation by [John Henry](#):



View Options



s Amid

for

west

or this time

Topics: Death / Die-off / Decline ▾

Date: 12/1/2019-2/28/2020 ▾

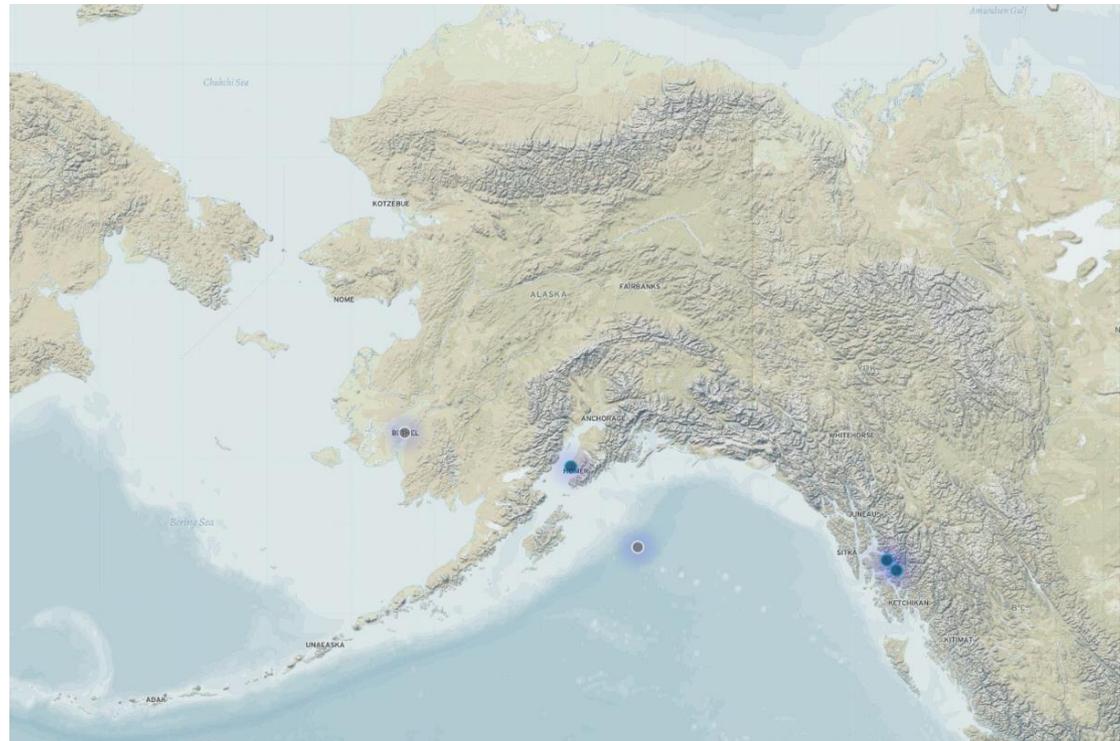
Region: Alaska ▾

Type: All ▾





**Death / Die-off /
Decline**



JANUARY 22, 2020

Numerous Dead Mottled Sea Stars (*Evasterias troschelii*)



Kim Wickman



Fort Wrangel, Alaska, United States

📍 N 56° 27' 9.325" W 132° 23' 0.696"

🔍 Nearby



Kim Wickman

Observer



Melissa Miner

Consultant

Roughly 60 dead starfish were scattered on a stretch of beach about 1/4-mile long, showing potential signs of sea star wasting disease.

Observation by **Kim Wickman**:



Alaska

star View Options

Topics: 2 Date: Any Region: Alaska Type: All

1 - 16 of 16



Sea Star Wasting Disease

King Cove, Alaska, United States
26 JUN 2019



No Sea Stars on Bishop's Beach

Homer, Alaska, United States
1 JUN 2018



Sea star populations in Kachemak Bay annihilated by wasting disease

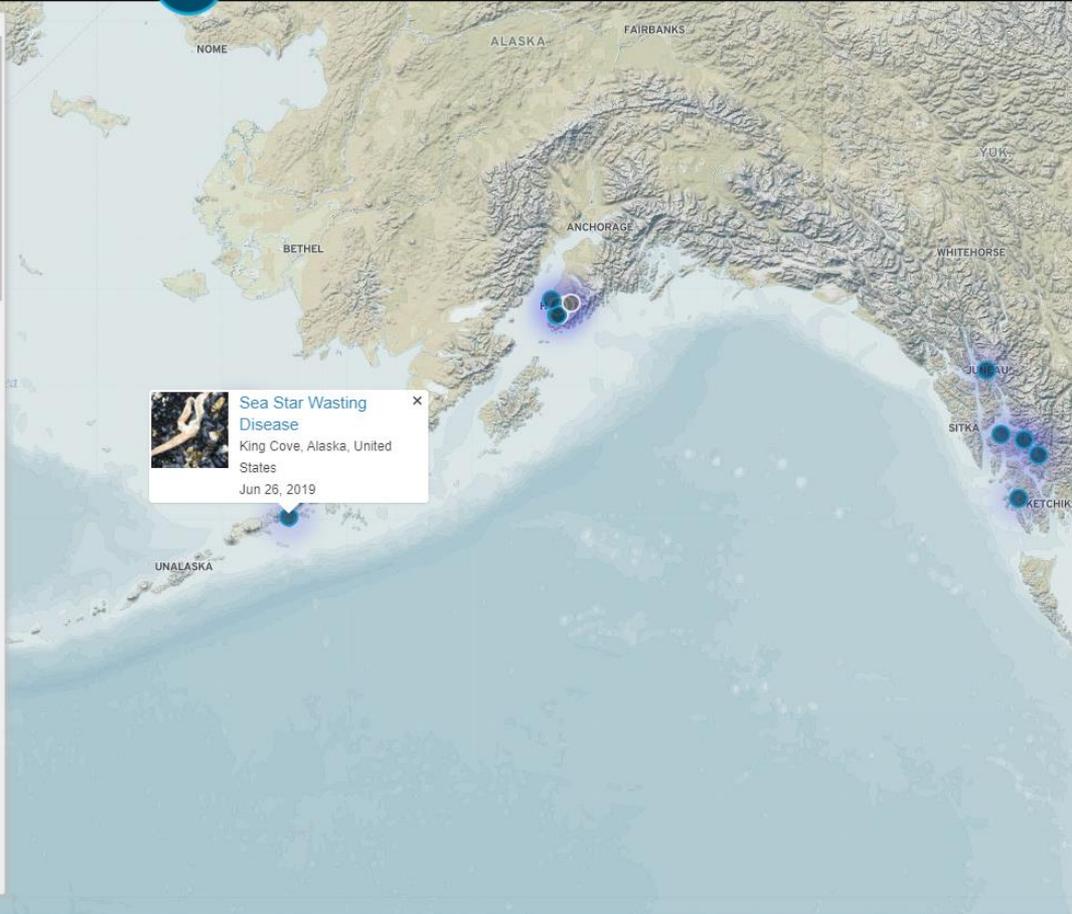
Seldovia Village, Alaska, United States
5 MAY 2017

Alaska Dispatch News



Mottled Sea Star (*Evasterias troscheli*) Die-off Juneau

DuPont beach Juneau, Alaska, United States

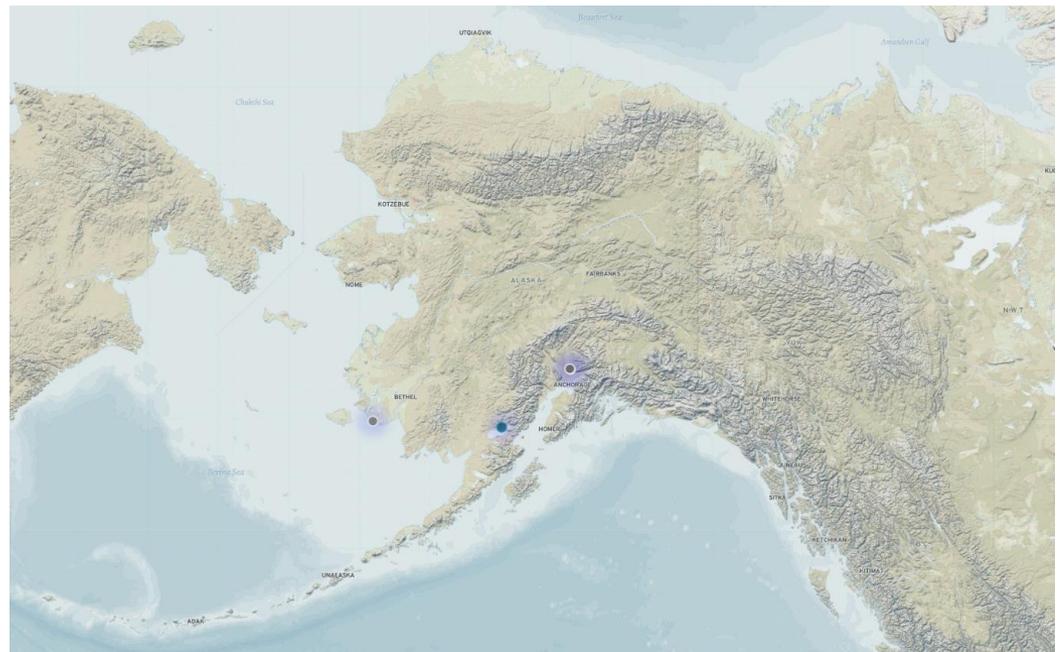


Topics: Flooding / Draining ▼

Date: 12/1/2019-2/28/2020 ▼

Region: Alaska ▼

Type: All ▼



JANUARY 30, 2020

Overflow Flood Waters Threaten House and Road System



Flooding near home
Newhalen Tribal Council



Newhalen, Alaska

N 59° 43' 9.728" W 154° 53' 43.993"

Nearby



Savannah Anelon Observer



Sonny Lamont Observer

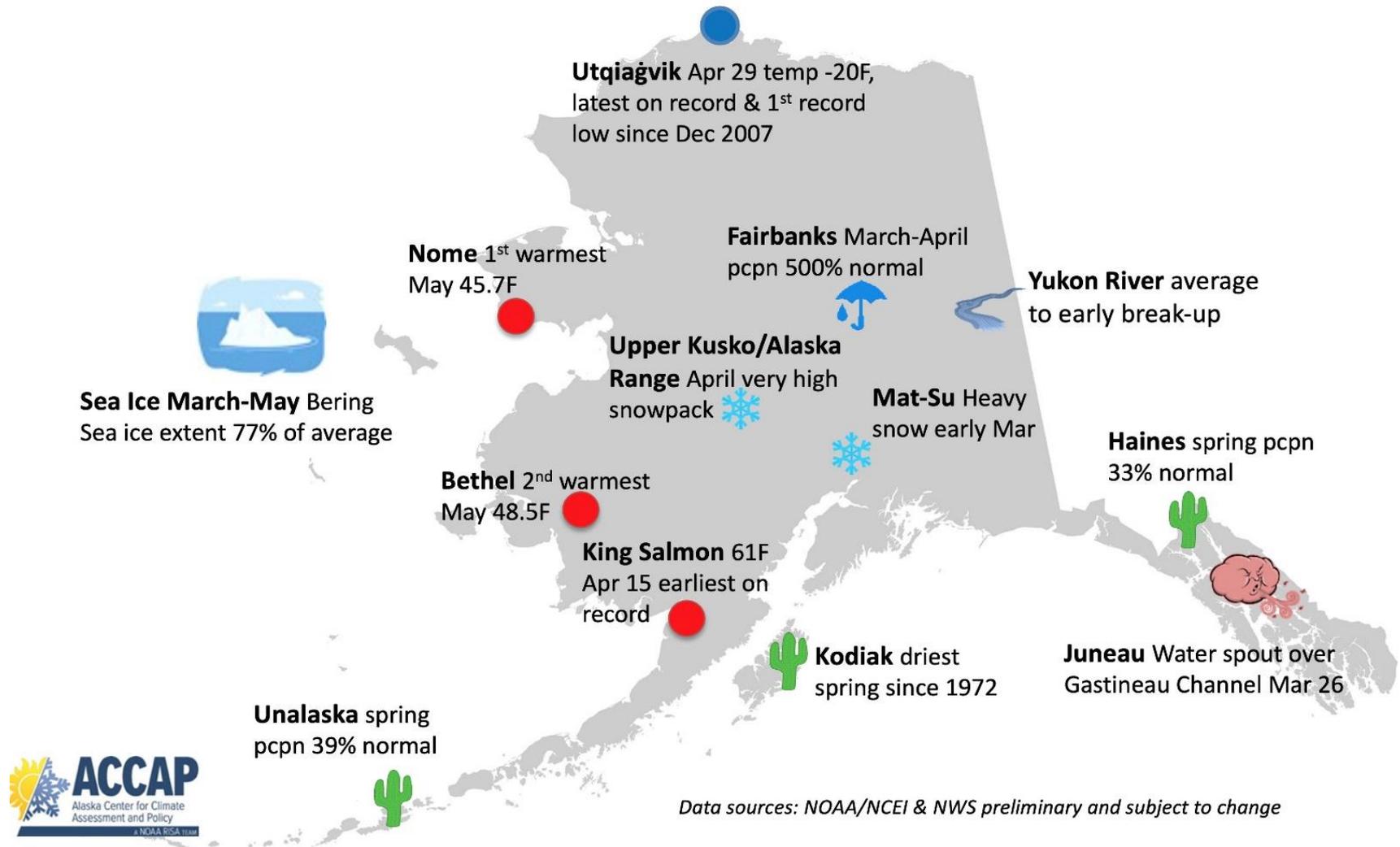


Edward "Ted" Smith Consultant

A hole cut in the ice has produced a lot of overflow, and flooding is now threatening homes and a state-managed road.

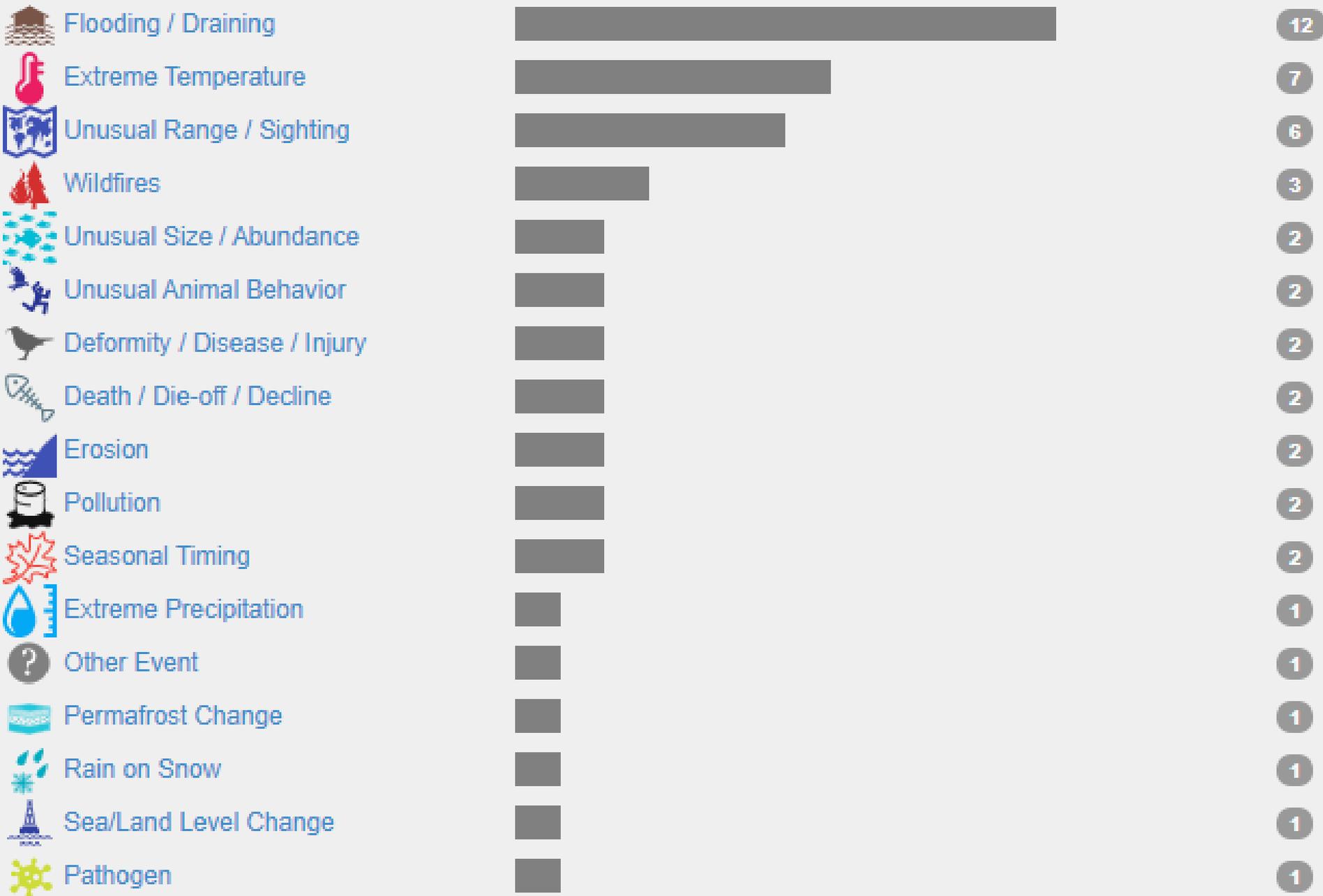
Observation by [Sonny Lamont](#):

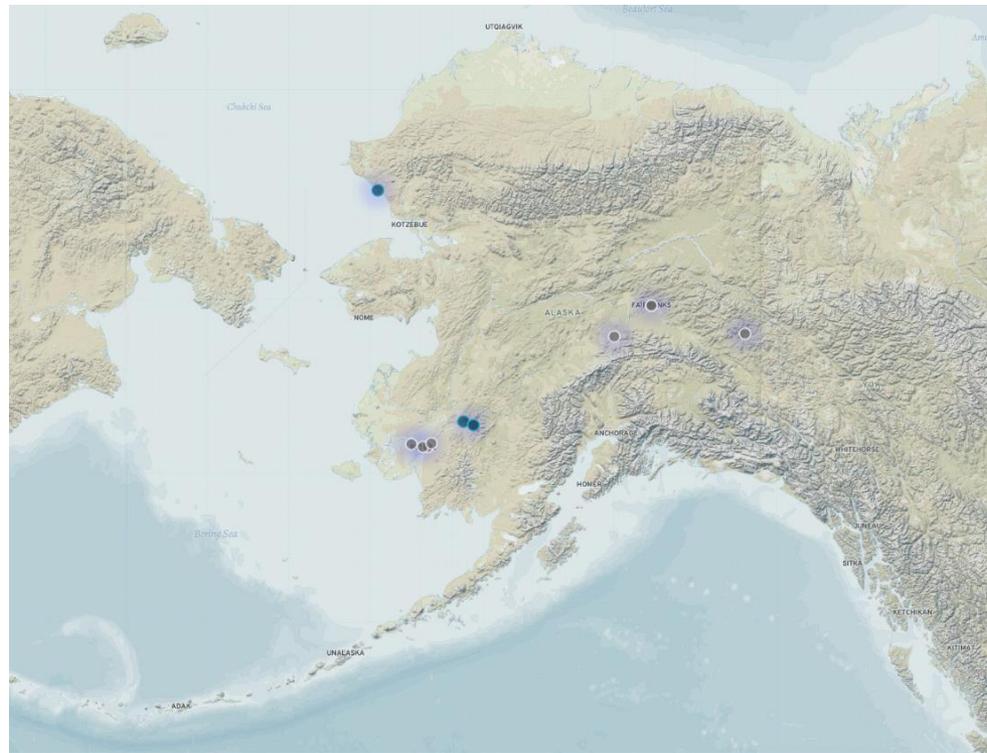
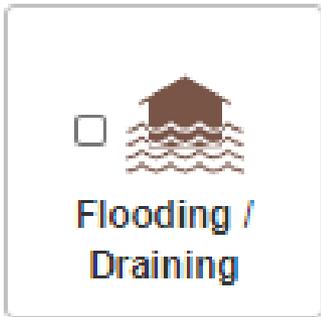
Spring 2020 Alaska Weather & Climate Highlights



Courtesy Rick Thoman - ACCAP

Unusual or Unexpected Event





MAY 12, 2020

Nunapitchuk Flood Worst In Years



Nunapitchuk, Alaska, United States

📍 N 60° 53' 48.984" W 162° 27' 33.984"

🔍 Nearby

While many communities along the Kuskokwim River escaped major flooding, one small village is still seeing high water.

Read On 

Or translated into

[View a screenshot of the article](#) 

Author: Krysti Shallenberger, Alaska's Energy Desk

New Ground Rising from First Lake

Noatak, Alaska, United States

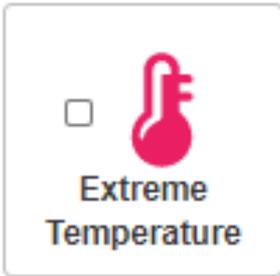
28 MAY 2020

Topics: Extreme Temperature ▾

Date: 2020 / Spring ▾

Region: Alaska ▾

Type: All ▾



MAY 30, 2020

Pollen Tornado



A pollen twister

Patricia Yaska



Chuathbaluk, Alaska, United States

 N 61° 34' 18.984" W 159° 14' 42"

 Nearby



Patricia Yaska

Observer



Mike Brubaker

Consultant

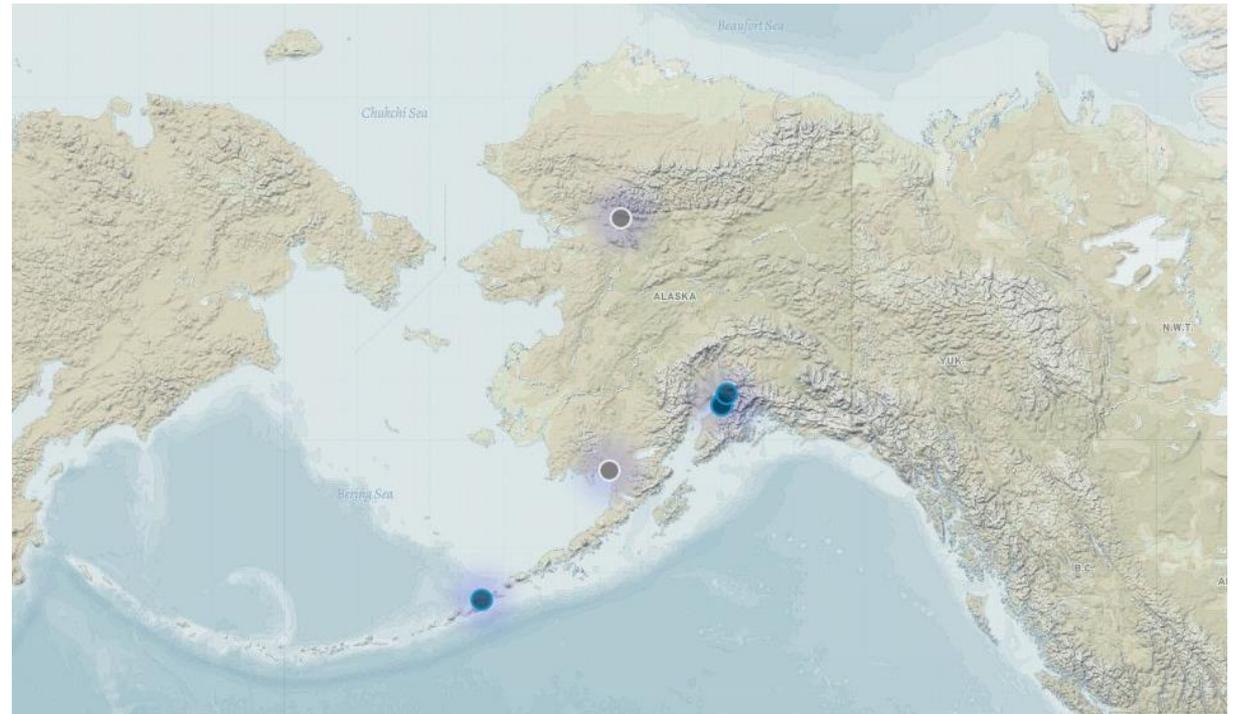
Warm temperatures are causing birch buds to burst, sending large

Topics: Unusual Range / Sighting ▾

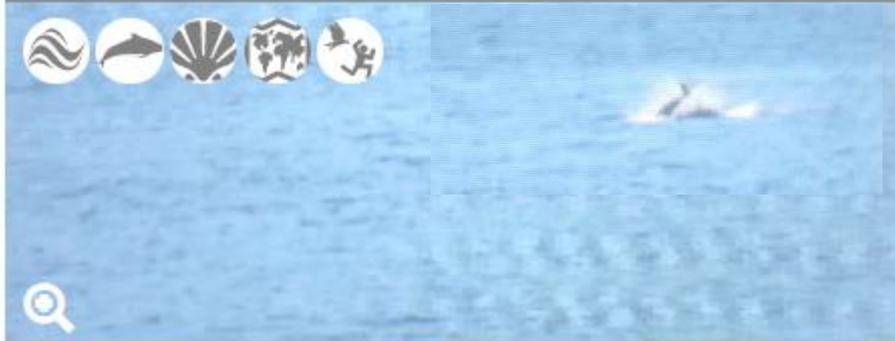
Date: 2020 / Spring ▾

Region: Alaska ▾

Type: All ▾



Dolphin Sighting (*Lagenorhynchus obliquidens*)



Unalaska, Alaska, United States

📍 N 53° 54' 7.608" W 166° 30' 4.449"

🔍 Nearby



Julieanne Renee Berikoff Observer



Asia Beder Consultant



Melissa Good Consultant

Unusually active marine mammals seen near Unalaska may actually be Pacific white-sided dolphins.

Observation by Julieanne Renee Berikoff:

A local called the environmental department at the Tribe early in the afternoon to notify us that there was unusual behavior from porpoises in Unalaska Bay. As we drove out to the landfill, there was a herd of porpoises continuously jumping. In addition, their whole bodies were jumping out of the water, which the local porpoises don't do. They were swimming between the landfill and the

Summer 2020

Alaska Weather & Climate Highlights



Sea Ice June-August Chukchi
Sea ice extent 78% of average



Kotzebue summer
rainfall lowest since
1977, 50% average



McKinley River 5.35" rain 24-hours
August 1-2, highest on record in Interior



Cape Newenham
August 30 record low
pressure, of 28.40", in
Alaska for August



Unalaska August 30
wind gusts to 120 mph



Utqiagvik summer
rainfall lowest since 2007,
53% average



Wildfire statewide 181,200 acres
burned for season, lowest since 2008



Fairbanks 19 days with
thunder, ties 1988 for most
in any summer



Anchorage August 9 thunderstorm
gave 0.61" rain in one hour, highest
1-hour rainfall on record



Kodiak average
temperature 58.8F, 4th
warmest July



Juneau 68 June to
August days with rain,
most ever

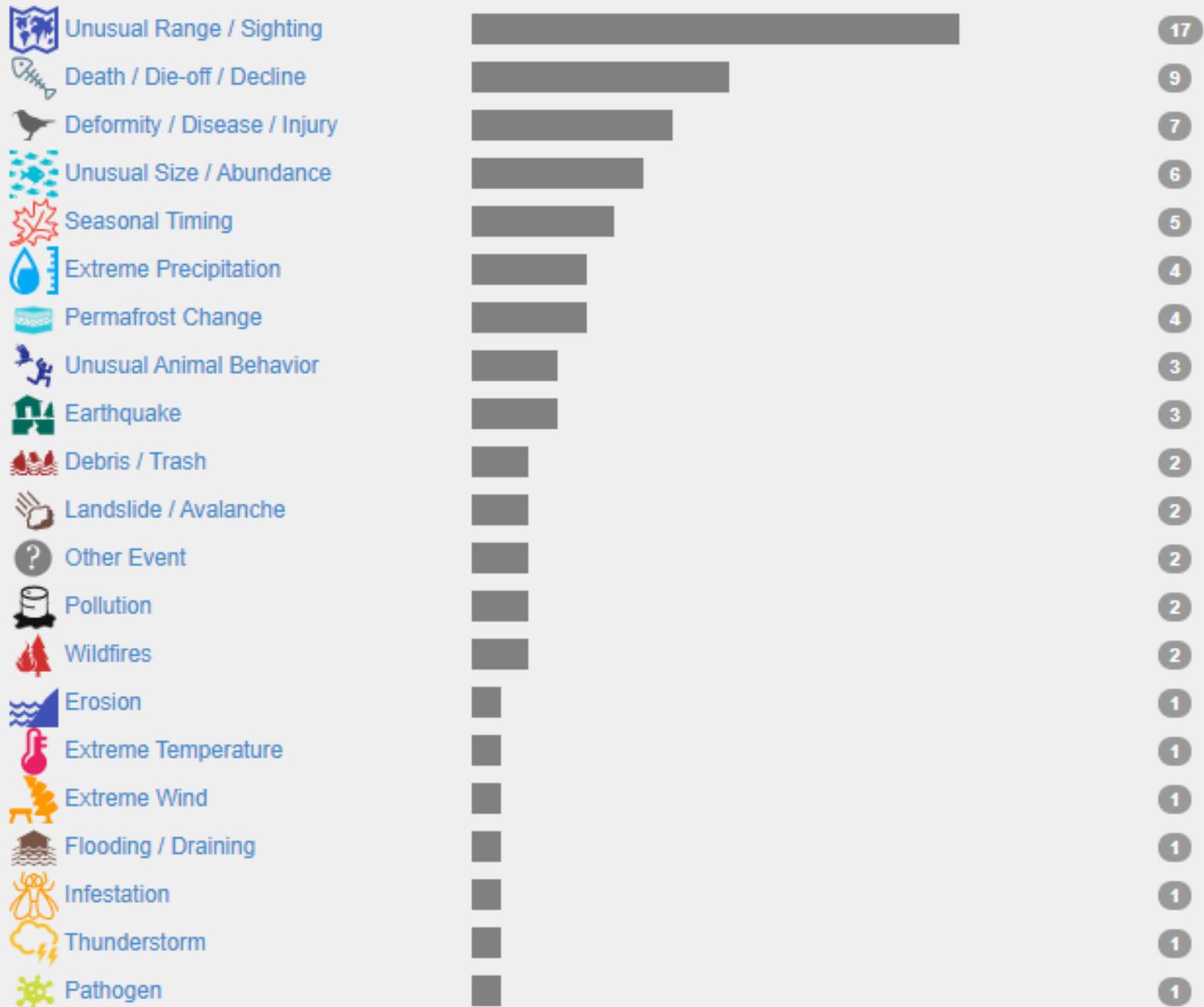


Sitka 88F July 31st tied
all-time record high



Ketchikan June-August
rainfall 47.28", highest
on record

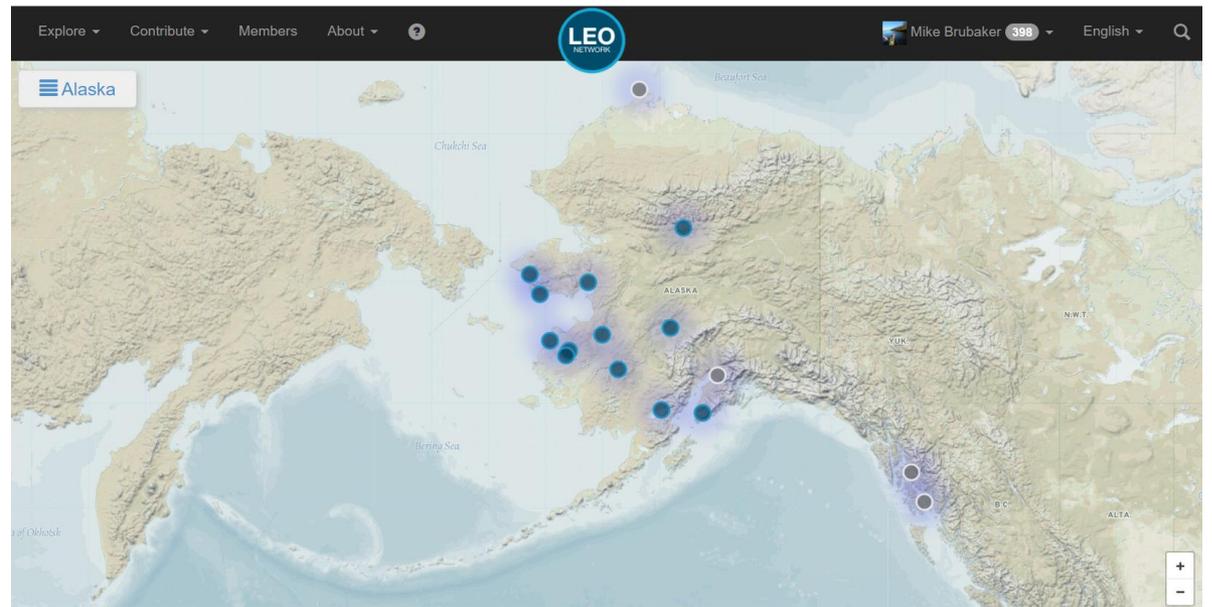
Unusual or Unexpected Event



Topics: Unusual Range / Sighting ▾ Date: 2020 / Summer ▾ Region: Alaska ▾ Type: All ▾




**Unusual Range /
Sighting**



AUGUST 2, 2020

Muskox (*Ovibos moschatus*) in Napaimute



Patricia Yaska



Napaimute, Alaska, United States

[N 61° 27' 42.998" W 158° 38' 21.001"](#)

[Nearby](#)



Patricia Yaska Observer

This is the second sighting of muskox in the Middle Kuskokwim, which is outside their known range.

Observation by [Patricia Yaska](#):



Alaska musk oxen found frozen in ice

22 Mar 2011

Shishmaref, Alaska, United States

Anchorage Daily News



With musk oxen attacks seemingly on rise, one Nome pet owner calls for more action

10 Nov 2017

Nome, Alaska, United States

Alaska Public Media



In the Alaska Arctic, more rain may mean fewer musk oxen

19 Jan 2018

Wrangel Island

Anchorage Daily News



Musk-ox (*Ovibos moschatus*) Far Inland

8 Jun 2017

Chuathbaluk, Alaska, United States

LEO Network



Snowmachiner watches wild dogs take down musk ox in Western Alaska

22 Mar 2019

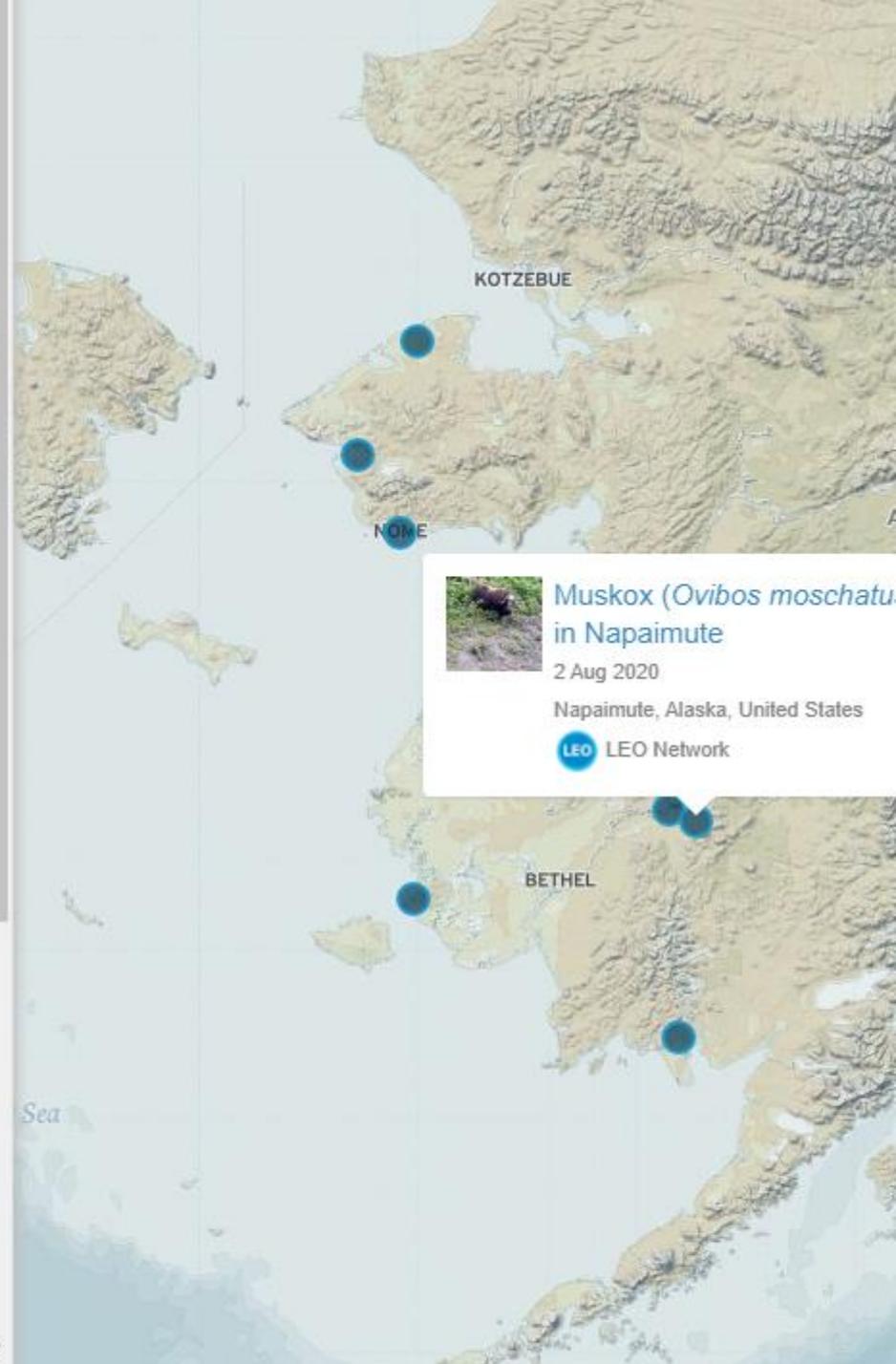
Toksook Bay, Alaska, United States

Anchorage Daily News



Muskox (*Ovibos moschatus*) in Napaimute

2 Aug 2020

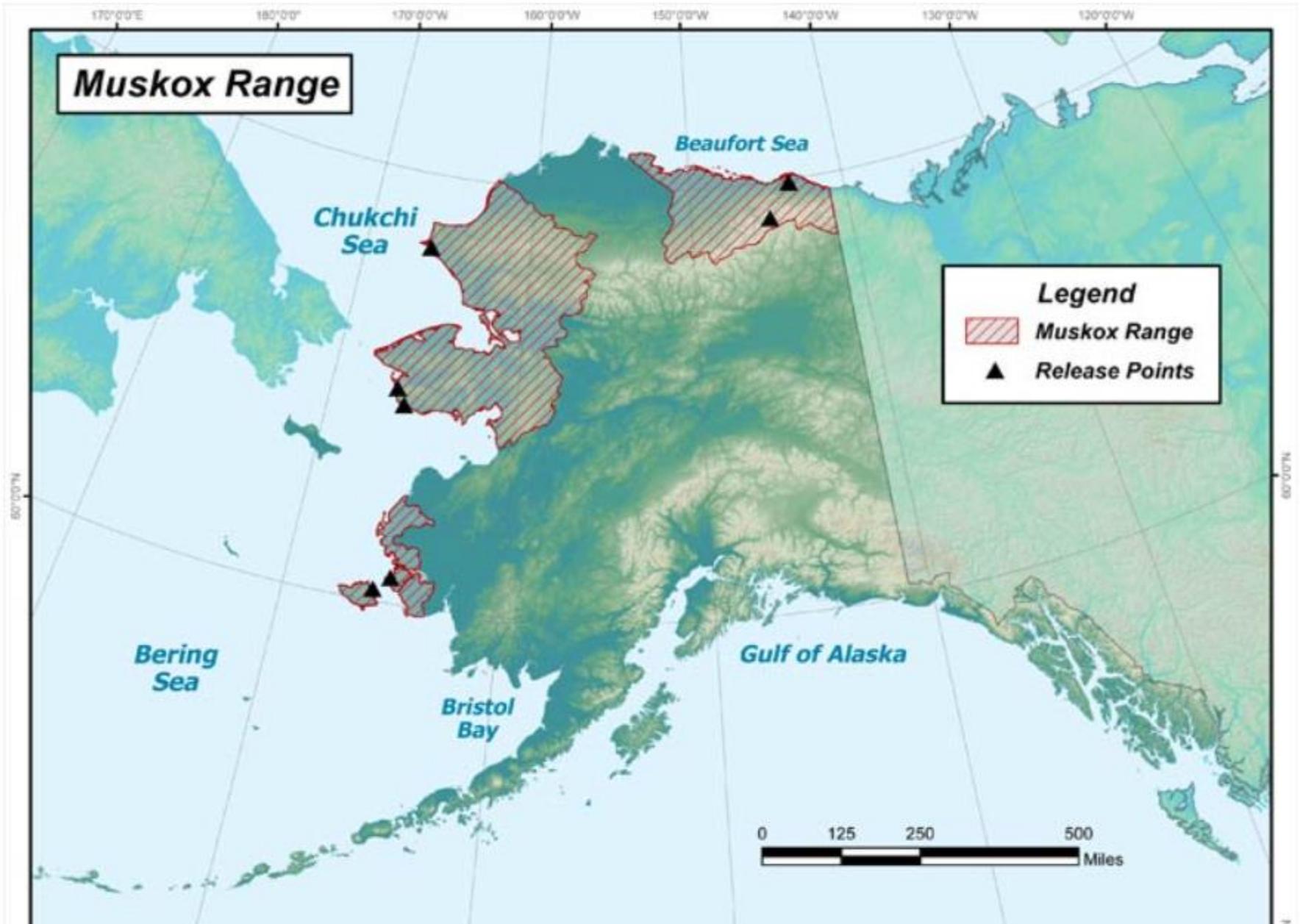


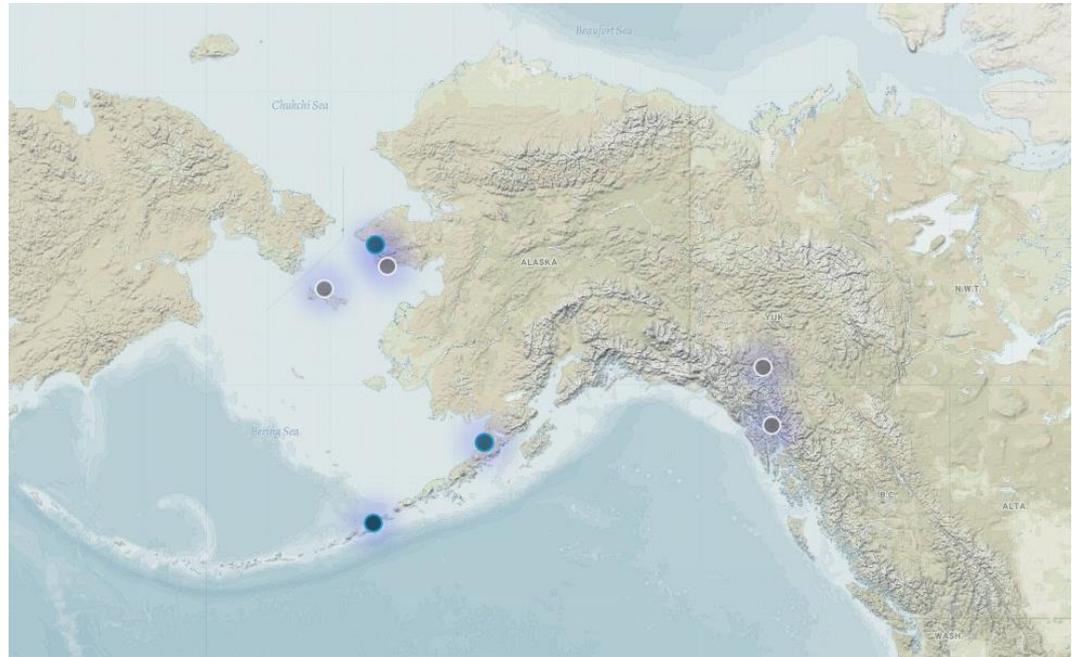
Description

Uses

Management

More Resources





JUNE 24, 2020

Washed-up Stellar Sea Lion (*Eumetopias jubatus*) on Front Beach



Dead female Steller sea lion
Julieanne Renee Berikoff



Unalaska, Alaska, United States

📍 N 53° 52' 28.496" W 166° 31' 14.745"

🔍 Nearby



Julieanne Renee Berikoff Observer



Melissa Good Consultant



Barbara Mahoney Consultant



Gay Sheffield Consultant

Female Stellar sea lion found dead on the beach, partially scavenged by eagles. There was no sign of any bullet holes. In addition, there wasn't any other evidence of what happened to the sea lion.

Observation by [Julieanne Renee Berikoff](#)





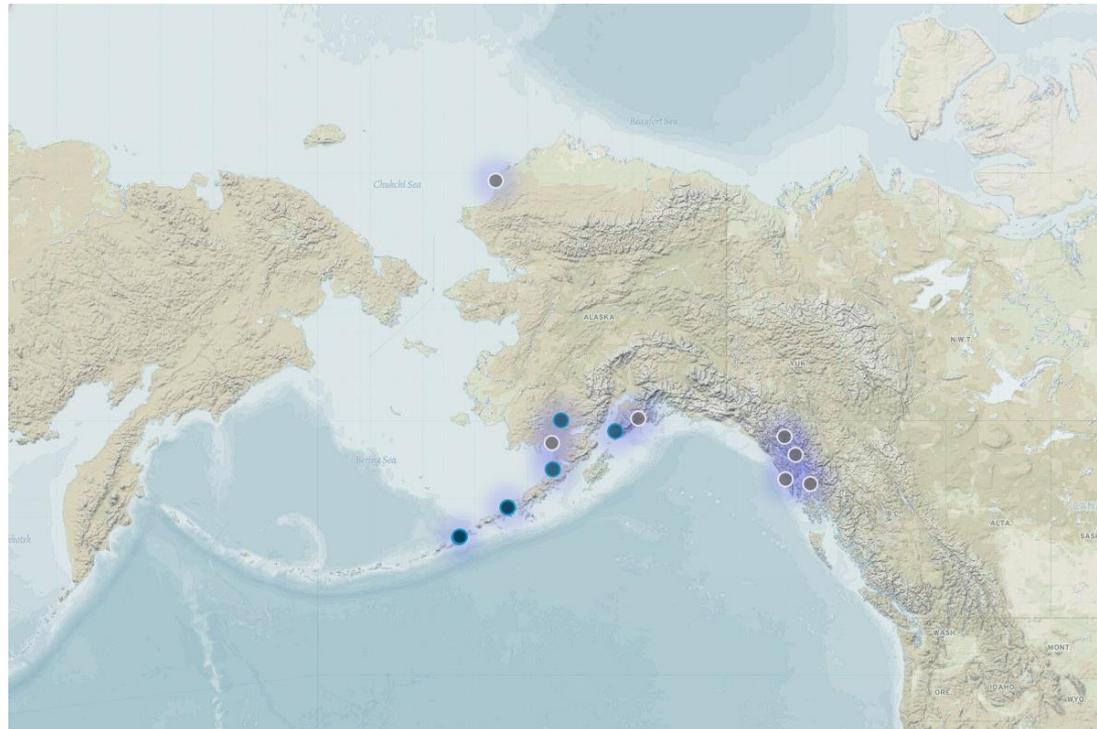
Map of 2019 ice seal strandings in the Bering and Chukchi seas, February 12 through September 4, 2019.

Topics: Marine Mammals ▾

Date: 12/1/2019-11/30/2020 ▾

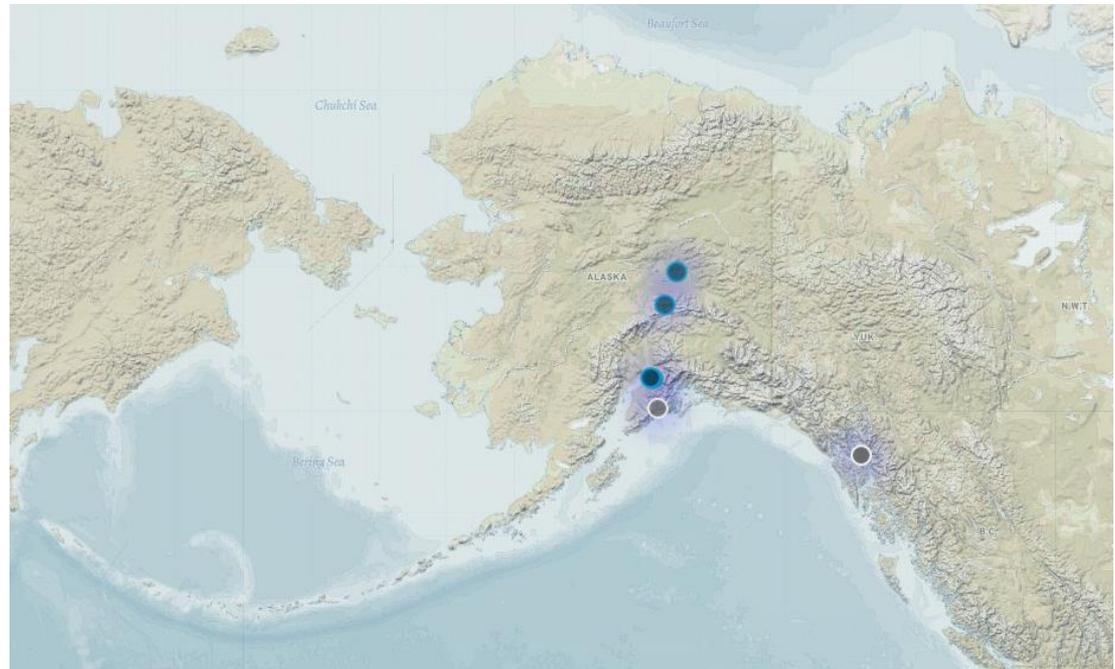
Region: Alaska ▾

Type: All ▾






**Deformity /
Disease / Injury**



Multi-headed Fireweed (*Chamerion angustifolium*)



Holly Dean



Ester, Alaska, United States

[N 64° 49' 2.464" W 148° 3' 0.269"](#)

[Nearby](#)

Holly Dean Observer

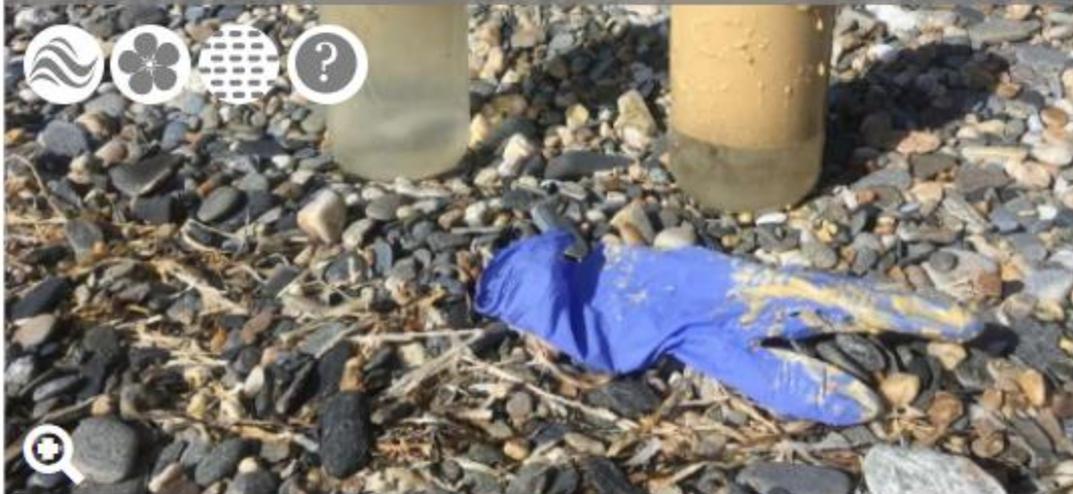
Matt Carlson Consultant

Browsing moose may have damaged the primary flowering shoot of the fireweed, causing it to form multiple blooming stalks.

+ My Maps

JUNE 16, 2020

Yellow-tinted Water around Nome Identified As Spruce Pollen



Water samples
Gay Sheffield



Nome, Alaska, United States

📍 N 64° 30' 3.996" W 165° 24' 23.004"

🔍 Nearby



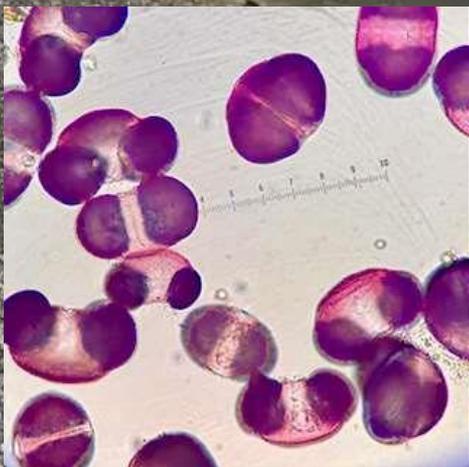
Gay Sheffield Observer



Dean Stockwell Consultant



An error has occurred with this image.



Autumn 2020 Alaska Weather & Climate Highlights



Sea Ice autumn Chukchi Sea ice extent 39% of average

Utqiagvik tied for 3rd warmest November, 15.3F above normal



Wiseman September rainfall 189% of normal

Nome 5th warmest autumn, 5.0F above normal

Fairbanks autumn snowfall 33.5", 2nd highest since 1996



Bethel Kuskokwim River partial melt mid-November

Anchorage winter snowpack on November 8, earlier than most recent years



Yakutat autumn precipitation 34% below normal



Kodiak drought ending rain late September



Haines Hwy November snowfall 70"

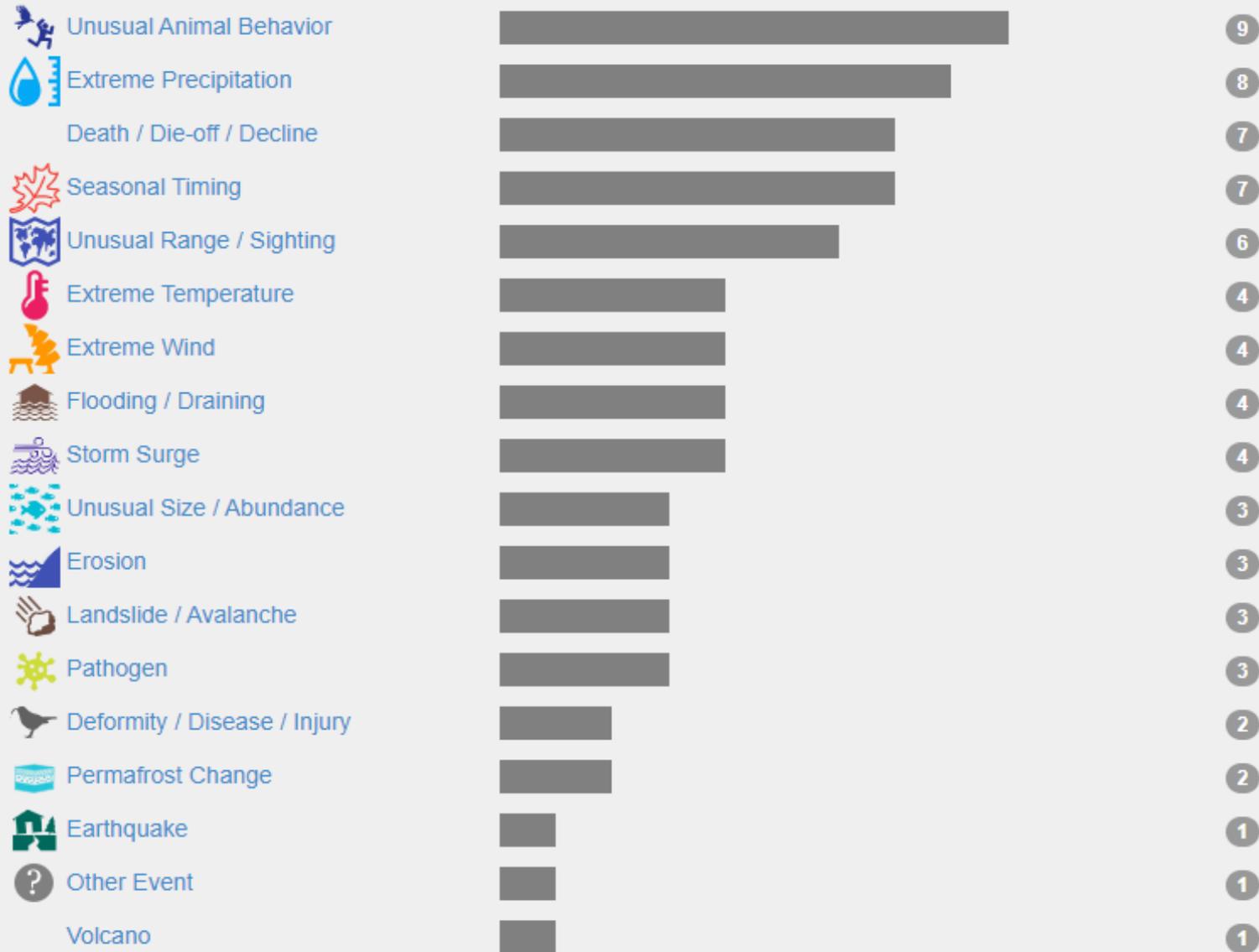


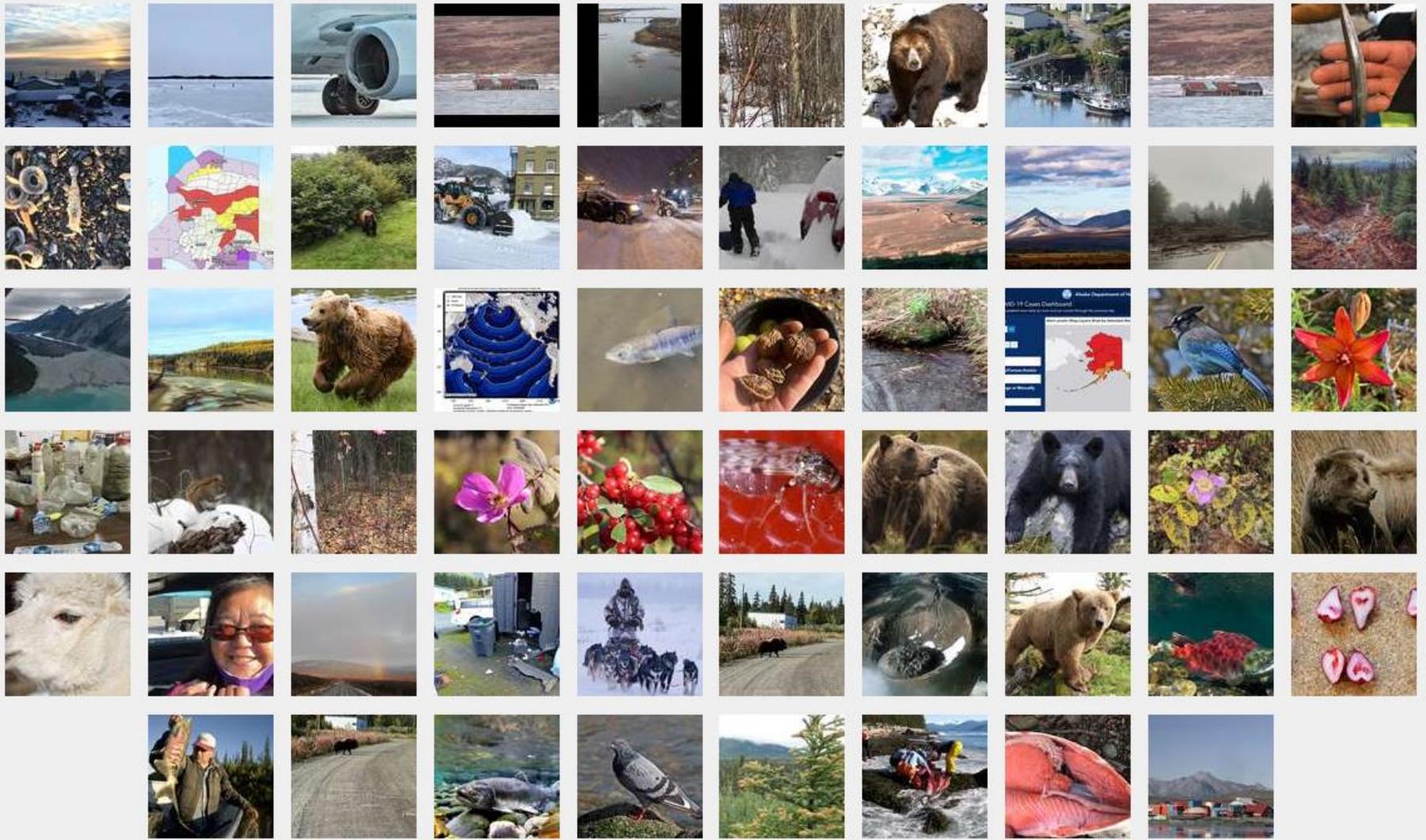
Cold Bay 1st freeze September 4th, second earliest on record

Ketchikan 5th wettest November 30.05" rain



Unusual or Unexpected Event





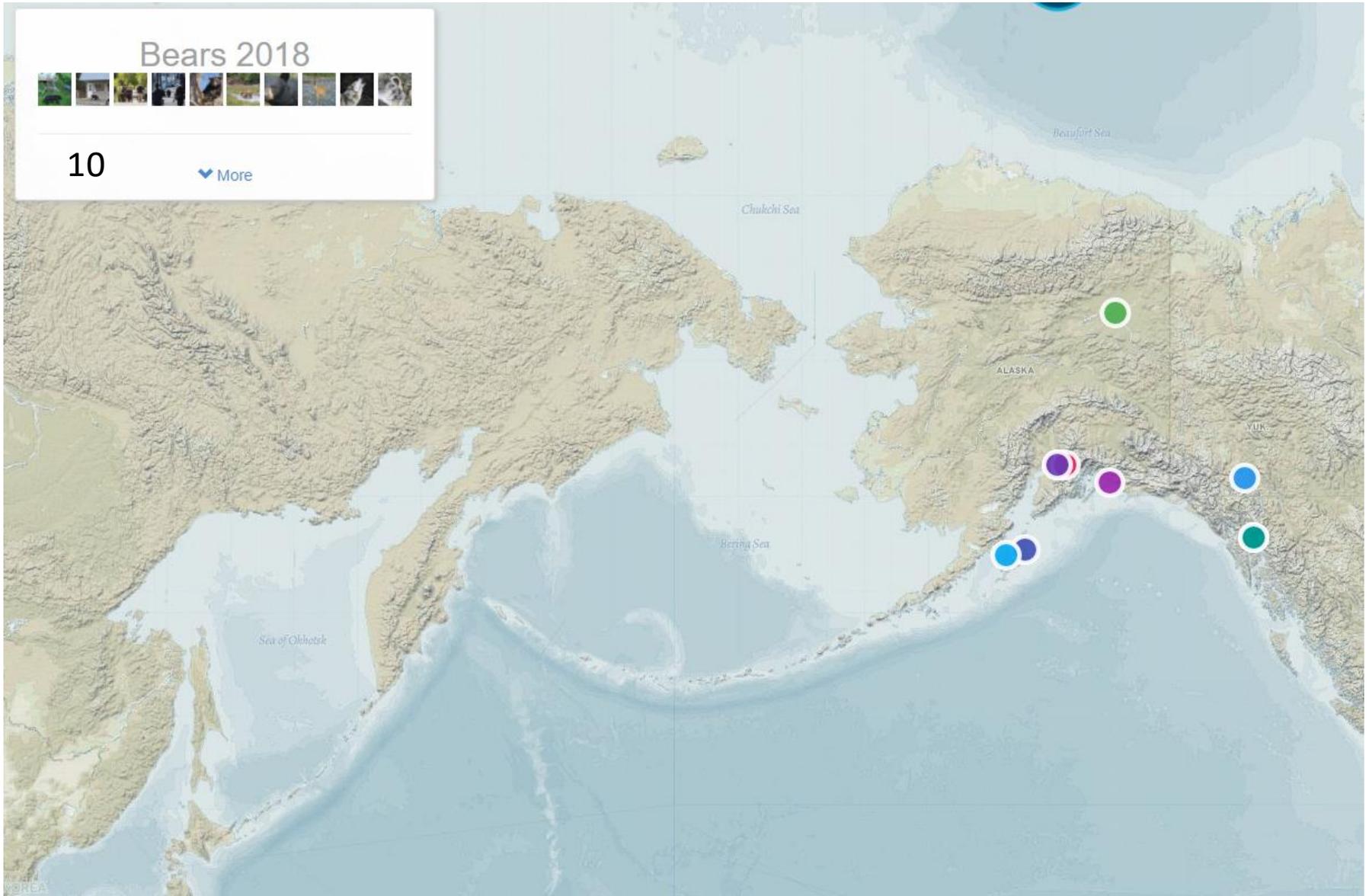


Bears 2018



10

▼ More

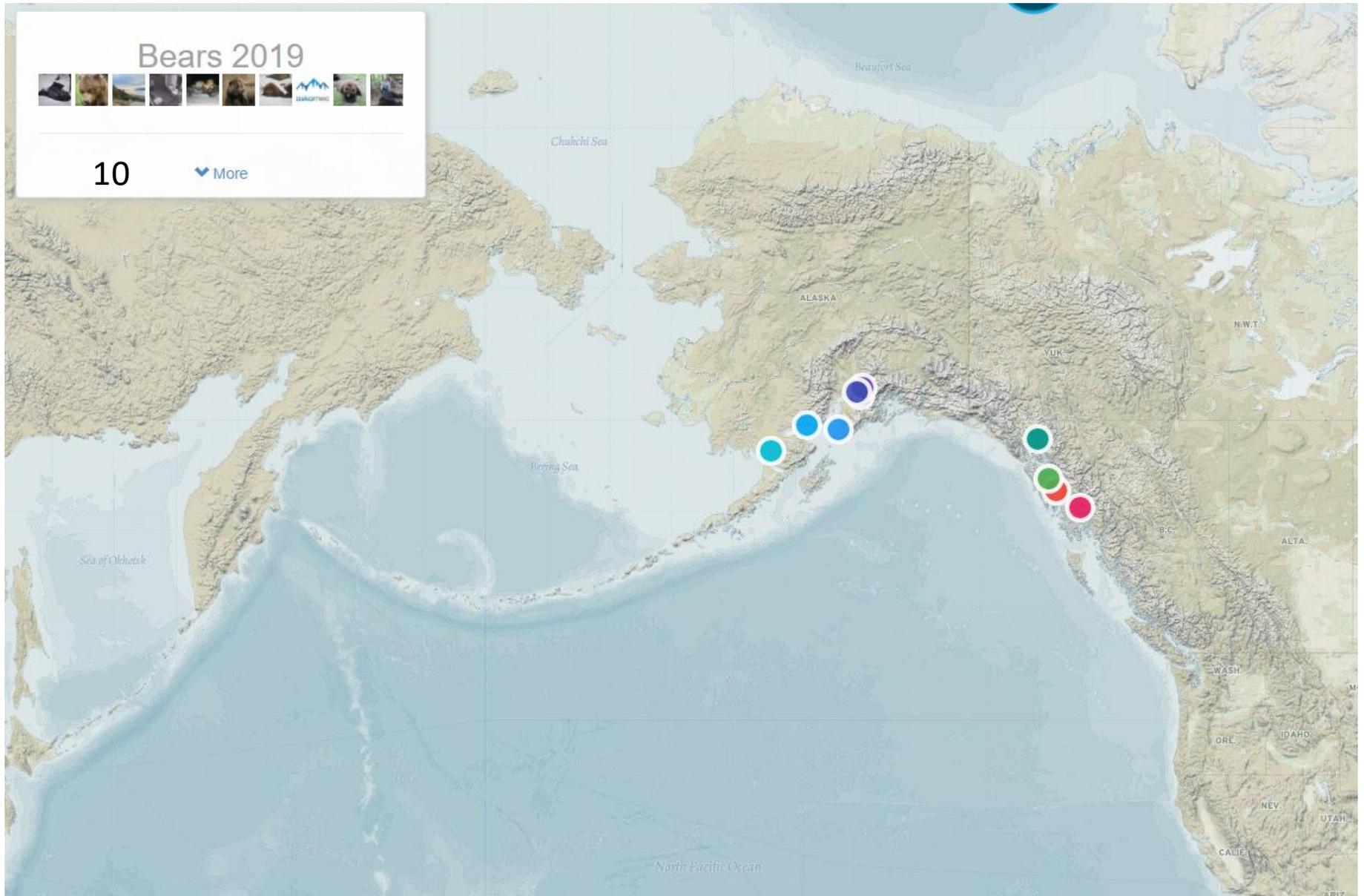


Bears 2019



10

[More](#)

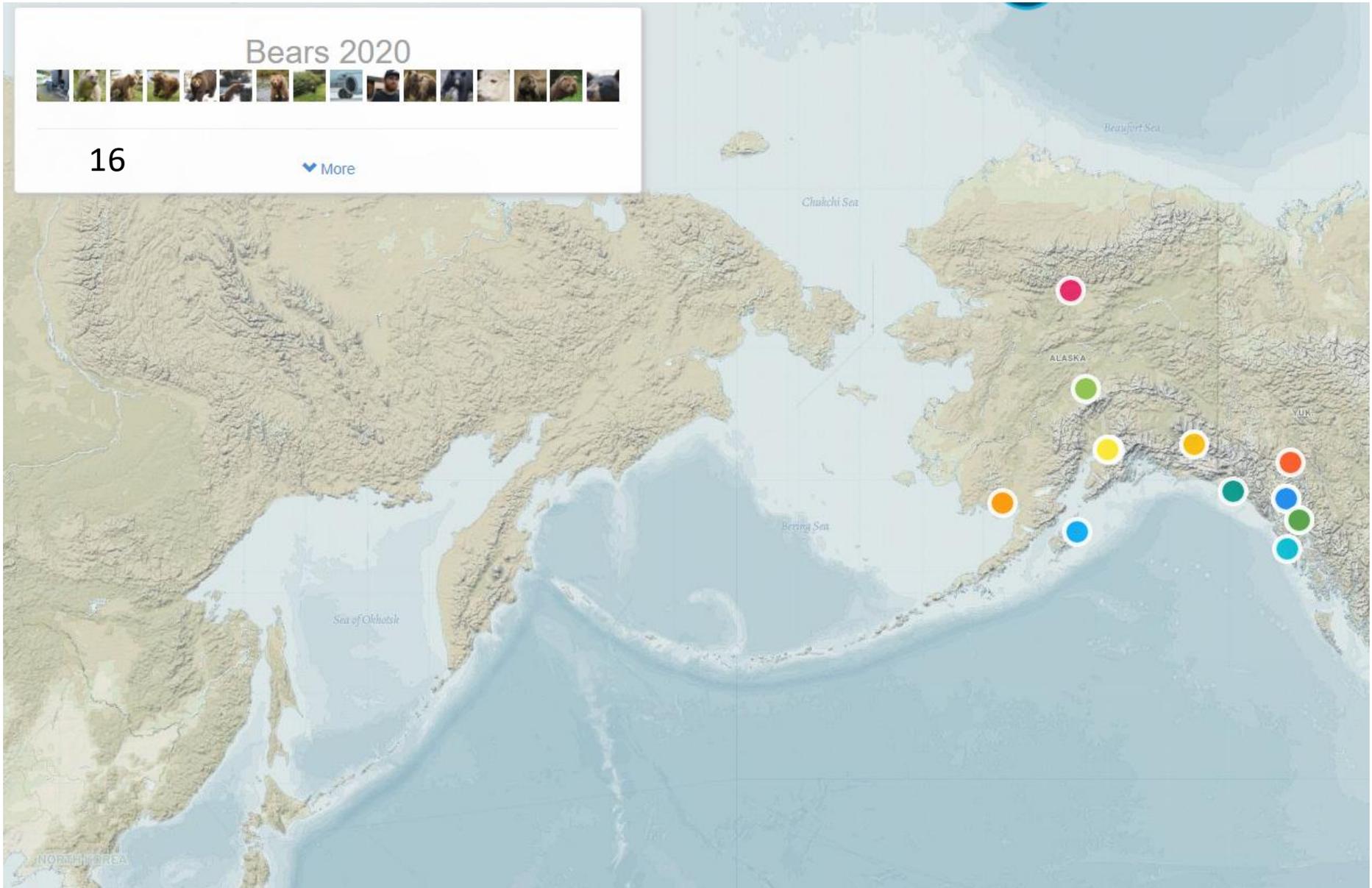


Bears 2020



16

▼ More



2020

Stats Thumbnails

People

Secured garbage and of yearling bears' are opination

States

ish and Game officials say a bunch of dling natural food supply are forcing man garbage for food before they

a

the Junjik River

d States

ears is often the result of a recessive rding to researchers at the Alaska Game, light colored bears have been although this is the first observation of

ommends seasonal s town's bear problem

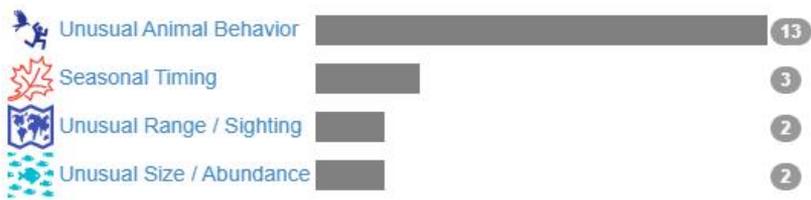
States

amatic increase in bear activity with 600%, according to police chief Heath ears have been shot in defense of

Natural Environment



Unusual or Unexpected Event



Impact on Human Environment



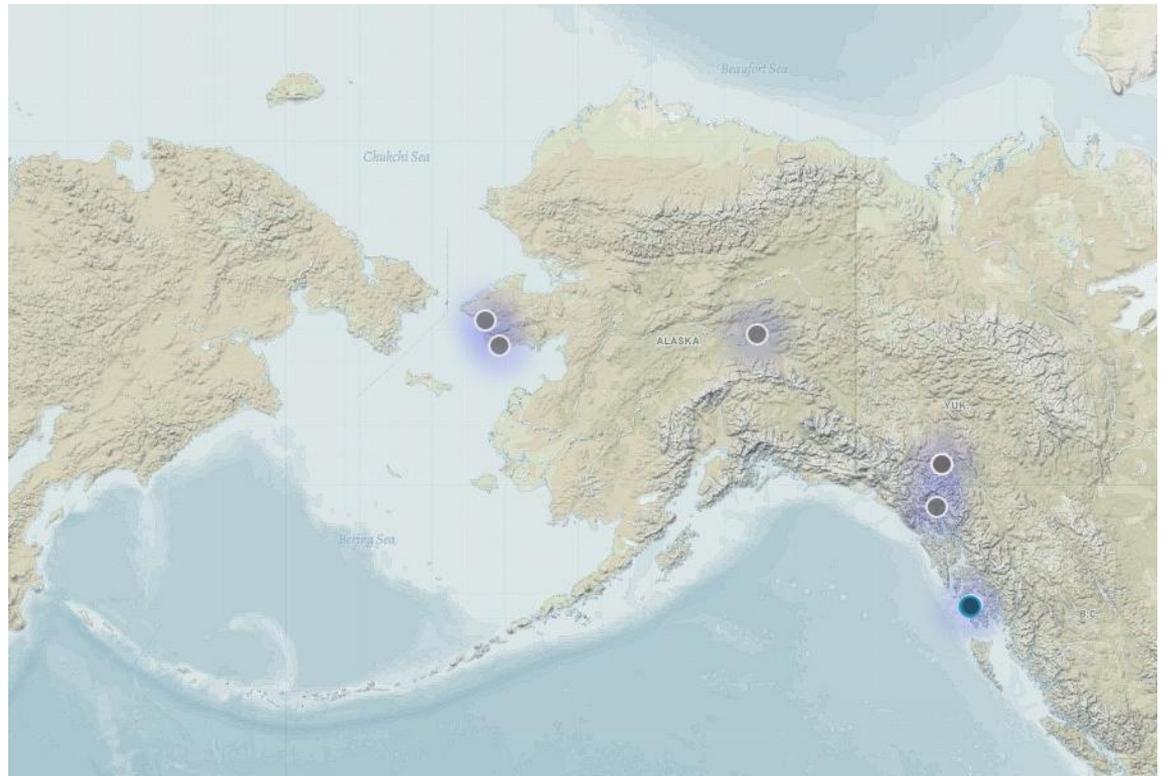
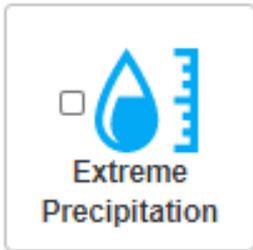
Years



Seasons



Topics: Extreme Precipitation ▾ Date: 2020 / Fall ▾ Region: Alaska ▾ Type: All ▾



OCTOBER 26, 2020

Extreme rain brings flurry of landslides



Courtesy of Shannon Yates



Prince of Wales Island, Alaska

📍 N 55° 30' 2.299" W 133° 7' 56.367"

🔍 Nearby

Shannon Yates Observer

Large amounts of precipitation triggered landslides across Prince of Wales Island, blocking roads and damaging at least one bridge.

Observation by [Shannon Yates](#):



Valley News

- WEATHER
- ICE AND SNOW
- EXTREME PRECIPITATION

Blizzard sets daily snowfall record



Haines, Alaska, United States

N 59° 14' 9.42" W 135° 26' 43.188"

Nearby

Last weekend's blizzard caused the Haines Borough School District to close Monday. A total of 16 inches of snow fell in less than 24 hours--a record high for daily snowfall according to National Weather Service data.

Read On [Chilkat Valley News \(English\)](#)

Or translated into

[View a screenshot of the article](#)

See Also





2 DECEMBER 2020 /  Anchorage Daily News / James Brooks

6 reported missing in Haines after record rainfall causes flooding, landslides across Southeast Alaska



Haines, Alaska, United States

 N 59° 14' 9.42" W 135° 26' 43.188"

 Nearby

Nearly 12 inches of rain fell on the town of Pelican in 48 hours, and all-time records were set in Juneau, Skagway, Haines, Petersburg and Ketchikan. The City of Haines is sending alerts about the immediate danger of landslides.

Read On  [Anchorage Daily News \(English\)](#) 

Or translated into

[View a screenshot of the article](#) 

See Also

 [View on Map](#)

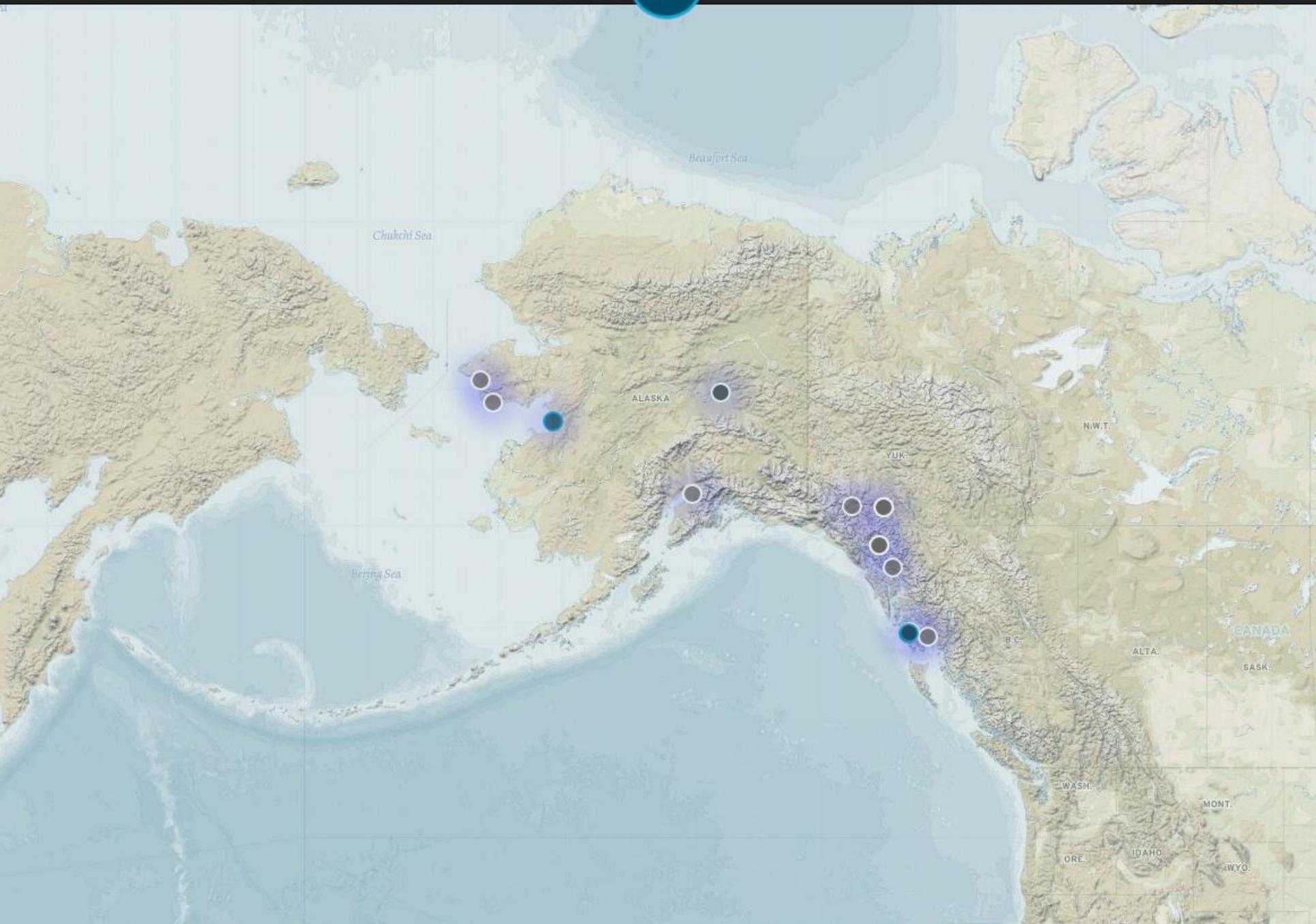


Heavy rains in Yukon and northern B.C. cause mudslides, highway closures

CBC

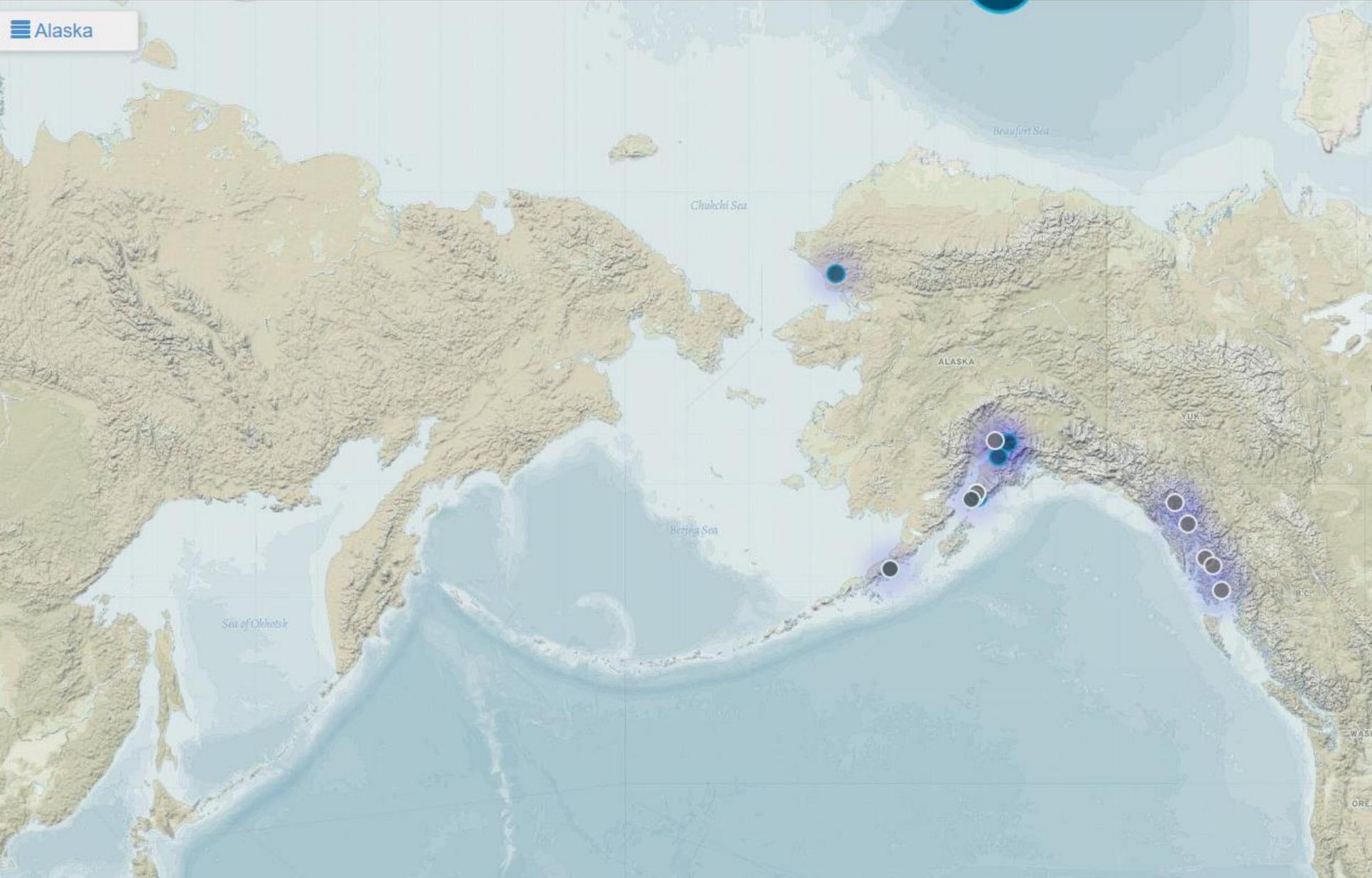
Haines Junction, Yukon, Canada

AUG 19, 2020





Alaska



Topics: [Death / Die-off / Decline](#) ▾

Date: [2020 / Fall](#) ▾

Region: [Alaska](#) ▾

Type: [All](#) ▾





Death / Die-off / Decline



SEPTEMBER 17, 2020

Chilkat sockeye, coho, chum runs appear low compared to past years



sockeye

en.m.wikipedia.org



Haines, Alaska, United States

[N 59° 14' 9.42" W 135° 26' 43.188"](#)

[Nearby](#)

So far, the department has counted just under 37,000 fish at the Chilkat weir, well below the 10-year average of 80,000 fish. Zeiser said at this point in the season, it's doubtful the run will hit the escapement range of 70,000 to 150,000 fish.

Read On  [Chilkat Valley News](#) 

Or translated into



Take Home

- Strong signals for early winter included extreme temperatures (both warm and cold), marine invertebrate die-offs, and flooding in western and central Alaska.
- Strong signals in the Spring included extremely warm temperatures in the west, dry conditions in the south and rapid thawing leading to flooding and extreme pollen events.
- In Summer, the posts were dominated by wildlife related events including unusual species sightings and unusual range sightings, marine mammal strandings, and a flurry of posts about unusual plant conditions.
- In Fall, strong signals included harvest failures for salmon, numerous and persistent community-bear conflicts and extreme precipitation events.



ALASKA NATIVE
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www.leonetwork.org

ATCEM Environmental Survey

- What is happening?
- What are we doing?
- What resources do we need to be successful?



Infrastructure Damage



Photo Credit: Tanya
Ballot - Selawik

Change in Household Water Service



Photo credit: Paul Walton - Noatak

Change in Subsistence



Photo credit: Augusta Edmund - AlakanukA

Pollution Events



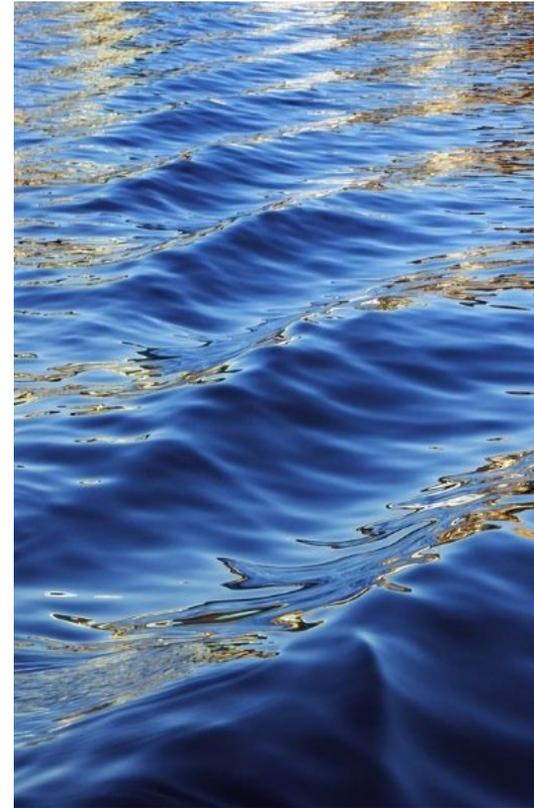
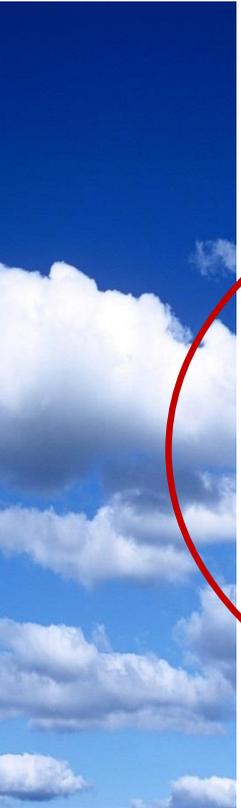
Photo Credit: US Army Corps of Engineers

Change in Air Quality



ATCEM Environmental Survey

- What is happening?
- What are we doing?
- What resources do we need to be successful?



Survey Respondents

- 131 total responses

Southcentral

- 25 respondents from Southcentral Service Area
- 1 from Chugachmiut

North Slope/Northwest Arctic

- 1 from Arctic Slope Native Association
- 16 from Norton Sound Health Corporation
- 4 from Maniilaq

Southeast

- 13 from Southeast Alaska Regional Health Corporation
- 1 from Metlakatla Indian Community

Southwest

- 15 from Bristol Bay Area Health
- 35 from Yukon Kuskokwim Health Corporation
- 4 from Kodiak Area Native Association
- 3 from Eastern Aleutian Tribes

Interior

- 1 Mt. Sanford Tribal Consortium
- 9 from Tanana Chief's Conference
- 1 from Copper River Native Association
- 2 from the Council of Athabaskan Tribal Governments