



Citizen Science for Alaska's Oceans

<http://www.biomapalaska.org>

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What is BioMap Alaska?

- A citizen-science initiative designed to collect information on marine species and marine ecosystems along the Alaska coastal region using an interactive web-based reporting system.

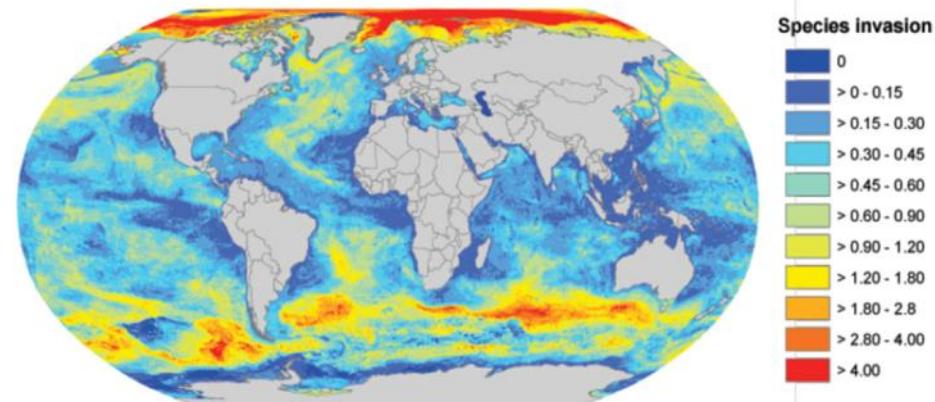


What will BioMap Do?

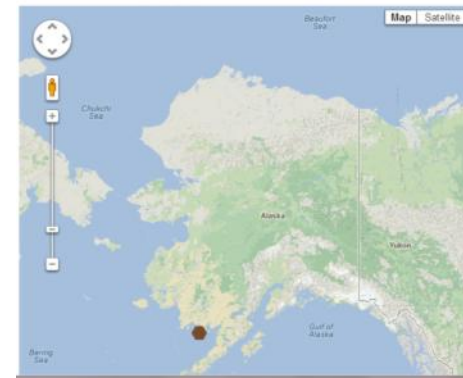
1. Enable residents of coastal Alaskan communities to easily contribute their voluntary observations and knowledge on marine species to what is planned as a state-wide marine species monitoring program.
2. Improve information on marine species and the marine environment in Alaska's coastal region for the benefit of Alaskans.
3. Improve can improve collaborations among managers, scientists, coastal residents and other stakeholders through a forum that allows for continuous exchange of information.
4. Contribute critical information needed for coastal planning in the context of offshore development.

Why Do We Need BioMap?

- Ocean temperatures are rising.
- Break up is earlier, freeze up is later.
- Ecosystems are shifting.
- Animal distributions are changing.
- Marine transport is on the rise.
- Coastal development continues.



The BioMap Sighting Review Process



BioMap “Species of Interest”

- Red King Crab
- Snow Crab
- Alaska Skate
- Bering Wolffish
- Chinook Salmon
- Pacific Sleeper Shark
- Walleye Pollock
- Bearded Seal
- Pacific Walrus
- Ringed Seal
- Spotted Seal



The BioMap Website

The screenshot shows the BioMap Alaska website in a browser window. The browser's address bar displays www.biomapalaska.org. The website's header features the BioMap Alaska logo and the tagline "Citizen Science for Alaska's Oceans". A navigation menu includes links for "About Us", "Field Guide", "Resources", "Report Sighting", "Alaska Sighting Map", "Samples & Suggestions", and "Press Room".

The main content area is divided into two sections. The left section, titled "SPECIES OF INTEREST", features a large image of a Red King Crab. Below the image is a text box with the following text:

RED KING CRAB

The red king crab can be found mainly off the coasts of the Bering Sea and Aleutian islands, but also throughout the waters of southeast Alaska in depths of up to 250 m. These crabs are known for their large size and flavor, making them a popular commercially harvested crab in the winter months.

Below the text are two buttons: "VIEW SIGHTINGS" and "REPORT SIGHTING". A "VIEW FIELD GUIDE" button is also visible. At the bottom of this section is a horizontal carousel of small images representing various species.

The right section, titled "What is BioMap Alaska?", contains a map of Alaska with numerous colored dots indicating sighting locations. Below the map is a text box explaining the project's goal:

BioMap Alaska requests the assistance from citizens of Alaska in tracking the movement of species of interest across the state. Citizens use this website to Report Sightings and the reports are directly verified by the BioMap Alaska team and their network of Scientists. Confirmed sightings are added to the BioMap which can be viewed on this website.

At the bottom of this section are two links: "View BioMap" and "Download BioMap Data".

View Sightings Map

The screenshot displays the BioMap Alaska website's "Alaska Sighting Map" page. The browser address bar shows the URL www.biomapalaska.org/sighting_map. The page features a blue header with the BioMap Alaska logo and the tagline "Citizen Science for Alaska's Oceans". A navigation menu includes links for "About Us", "Field Guide", "Resources", "Report Sighting", "Alaska Sighting Map", "Samples & Suggestions", and "Press Room".

The main content area is titled "Alaska Sighting Map" and includes a paragraph: "Below are a list of species that the BioMap Team has identified as species of interest and that BioMap will track in Phase 1 of the project. Click on each species to view a Field Guide to learn more about the species. You can filter the BioMap using the options on the left." Below this text is a "Show All Sightings" button.

The left sidebar contains filter options for species categories and sighting status:

- Invertebrates**
 - Select All • Deselect All
 - Red King Crab
 - Snow Crab
- Fish**
 - Select All • Deselect All
 - Alaska Skate
 - Bering Wolffish
 - Chinook Salmon
 - Pacific Sleeper Shark
 - Walleye Pollock
- Mammals**
 - Select All • Deselect All
 - Bearded Seal
 - Pacific Walrus
 - Ringed Seal
 - Spotted Seal
- Sighting Status**
 - Select All • Deselect All
 - Unconfirmed
 - Confirmed

The right side of the page features a map of Alaska with a "Map" and "Satellite" toggle. The map shows the state of Alaska and surrounding waters (Beaufort Sea, Chukchi Sea, Bering Sea, Gulf of Alaska). A brown hexagonal marker is visible in the Gulf of Alaska. The map includes navigation controls such as a compass, a person icon, and zoom in/out buttons.

View Sighting Details

The screenshot shows a web browser window displaying the BioMap Alaska website. The browser's address bar shows the URL www.biomapalaska.org/sighting_map. The website header features the BioMap Alaska logo and the tagline "Citizen Science for Alaska's Oceans". A navigation menu includes links for "About Us", "Field Guide", "Resources", "Report Sighting", "Alaska Sighting Map", "Samples & Suggestions", and "Press Room".

The main content area is titled "Alaska Sighting Map". Below the title, a paragraph states: "Below are a list of species that the BioMap Team has identified as species of interest and that BioMap will track in Phase 1 of the project. Click on each species to view a Field Guide to learn more about the species. You can filter the BioMap using the options on the left." A "Show All Sightings" button is located above the filter options.

The filter options are organized into three categories:

- Invertebrates**:
 - Select All • Deselect All
 - Red King Crab
 - Snow Crab
- Fish**:
 - Select All • Deselect All
 - Alaska Skate
 - Bering Wolffish
 - Chinook Salmon
 - Pacific Sleeper Shark
 - Walleye Pollock
- Mammals**:
 - Select All • Deselect All
 - Bearded Seal
 - Pacific Walrus
 - Ringed Seal
 - Spotted Seal

Below the filter options is a "Sighting Status" section:

- Select All • Deselect All
- Unconfirmed
- Confirmed

The central part of the page features a map of Alaska with a "Pacific Walrus" sighting popup window. The popup window contains the following information:

- Pacific Walrus**
- Sighted by: Ipolasek
- Date: July 3, 2012
- Time: 3:47 PM
- Weight: 2200lbs oz
- Length: 9'10.1100"
- Sizing Method: Estimated
- Sex: Male
- Age: Adult
- Coordinates: 58.36, -159.6
- Area Description: Round Island "1st Beach"
- Weather Conditions: Sun
- Air Temperature: 45° F
- Ocean Conditions: calm
- Water Depth: On Land
- Activity At Time Of Sighting: Research
- Status: Confirmed
- [View Field Guide](#)

The map shows the sighting location in the Chukchi Sea, near the Yukon region of Alaska. The map includes navigation controls (directional arrows, a person icon, and zoom in/out buttons) and a "Map/Satellite" toggle.

Online Field Guides

Field Guides - Lunar | x

www.biomapalaska.org/field_guides

Google Apps @... CXCS Moodle Twitter / Home Facebook Who Should I St... Rasmuson Libra... Yahoo! Sports F... Other bookmarks


Welcome, Philip Loring | Logout | Admin Panel | Edit Account | Reported Sightings | Contact Us

BioMap
Alaska
Citizen Science for Alaska's Oceans

About Us **Field Guide** Resources Report Sighting Alaska Sighting Map Samples & Suggestions Press Room

Field Guides List


Species List - Select a Species - Page 1 GO of 2


Female red king crab egg clutch

RED KING CRAB
Paralithodes camtschaticus

The red king crab can be found mainly off the coasts of the Bering Sea and Aleutian islands, but also throughout the waters of southeast Alaska in depths of up to 250 m. These crabs are known for their large size and flavor, making them a popular commercially harvested crab in the winter months.


[Field Guide](#) [View Sightings](#) [Report Sighting](#)


Snow crab (male larger and female smaller)

SNOW CRAB
Chionocetes opilio

In Alaska, the majority of snow crabs are found in the Eastern Bering Sea but they have a range extending up into the Chuckchi and Beaufort Seas. The size of snow crabs varies with water temperature (i.e., smaller in the colder northern waters and larger in the southern Bering Sea which is where males are commercially harvested).

[Field Guide](#) [View Sightings](#) [Report Sighting](#)



ALASKA SKATE
Bathyraja parmifera

The Alaska skate is potentially the most common skate in Alaska. It can be found mainly in the Bering Sea but also off the coast of the Gulf of Alaska and the eastern Aleutian Islands in depths of 17 to 392 meters. It trolls the ocean floor for food and hides from predators in the sand.

[Field Guide](#) [View Sightings](#) [Report Sighting](#)

www.biomapalaska.org/field_guides

Field Guide: More Detail


Field Guide - Lunar C x

www.biomapalaska.org/field_guide?fgid=58

Google Apps @... CXCS Moodle Twitter / Home Facebook Who Should I St... Rasmuson Libra... Yahoo! Sports F... Other bookmarks


Field Guide - Red King Crab

< ALL FIELD GUIDES




NOAA
ADULT - FEMALE
Female red king crab egg clutch

[Click to enlarge](#)



ADULT - FEMALE ADULT - MALE JUVENILE



OCEAN RANGE

RED KING CRAB

PARALITHODES CAMTSCHATICUS

Number of Confirmed Sightings: 0

[View Sightings](#)

[Report Sighting](#)

Kingdom: Animalia
Phylum: Arthropoda
Class: Malacostraca
Order: Decapoda
Family: Lithodidae
Genus: Paralithodes
Species: camtschaticus

Female defining traits: Smaller than males, up to 10.5 pounds, egg mass may be visible under their wide abdominal flaps.

Male defining traits: Larger than females, up to 24 pounds, 5 foot leg span, and abdominal flap is narrow.

Juvenile defining traits: May only reach 2–3 cm in diameter for the first few years, stays in shallow waters, and clusters in balls with thousands of others.

Diet in the wild: Fish, algae, sea stars, urchins, clams, mussels, barnacles, and other seafloor invertebrates.

Reproductive cycle: An egg mass (43,000 to 500,000 eggs!) are carried for a

Description: The red king crab can be found mainly off the coasts of the Bering Sea and Aleutian Islands, but also throughout the waters of southeast Alaska in depths of up to 250 m. These crabs are known for their large size and flavor, making them a popular commercially harvested crab in the winter

Downloadable Field Guides: English and Iñupiaq!



RED KING CRAB

Updated 2012

Paralithodes camtschaticus

Description: The red king crab can be found mainly off the coasts of the Bering Sea and Aleutian islands, but also throughout the waters of southeast Alaska in depths of up to 250 m. These crabs are known for their large size and flavor, making them a popular commercially harvested crab in the winter months.

Population status: Their populations are steady and rising in the Bering Sea, but are in decline in other parts of Alaska, resulting in the closure of fisheries in these other areas until stocks reestablish.



Photo: Jan Håaga, NOAA Fisheries
Male and female red king crab

General characteristics: Reddish brown to purple in color with light abdomens and a spiny shell, right claw usually larger than the left, three sets of walking legs, and two small rear legs for egg cleaning or sperm transfer.

Female defining traits: Smaller than males, up to 10.5 pounds, egg mass may be visible under their wide abdominal flaps.

Male defining traits: Larger than females, up to 24 pounds, 5 foot leg span, and abdominal flap is narrow.

Juvenile defining traits: Only 2-3 cm in diameter for the first few years, stays in shallow waters, and clusters in balls with thousands of others.

Diet in the wild: Fish, algae, sea stars, urchins, clams, mussels, barnacles, and other seafloor invertebrates.

Reproductive cycle: An egg mass (43,000 to 500,000 eggs!) are carried for a year by the female, and once released, the female will produce another egg mass immediately.

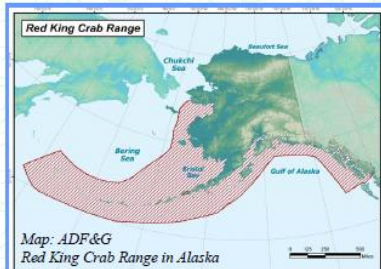
Predators in the wild: Sea otters, octopuses, other crabs, and larger fish like Pacific cod and halibut.



Photo: NOAA
Female king crab egg



Photo: NOAA
2 yr. old juvenile



KAVIQSAAT PUYUGIAQPAIT

Updated 2012

Paralithodes camtschaticus

Iñuusaa: Kaviqsaat Puyugiaqpaait Iñuusuurut Ualim (Bering) taġiuqani suli Uqalit qikiqtaġinni (Aleutian islands) kivalliqġiani Sallim taġiuqata (southeast Alaska) paqinamiut taunani ititiniqatuami qulikġipiaq malġukġipiaq qulit M-miituaami. Tamatkua puyugiaqpaait ilitġigilautagai ajivaiġutik suli tivragikġialutik, taimaasii aġunialġusivġugi pinaqsimatta ukiumi.

Iñuġiktillaani: Iñuġiktillaani naunmuktuktut ataramik Ualim(Bering) taġiuqani, aġlaan iñuġiakġihisiñuqat alani Alaskan taġiuqani, tavraasii umikturaqsiqagaat Kaviqsaamik puyugiaqpaġsiuġniq taavani naunmuktuvġugi.



Photo: Jan Håaga, NOAA Fisheries
Male and female red king crab

Irrusiji: Qaunia kavikavsaġlu tiġukpalaa- tun tiġluuraaqtaaq qaana immalu qatikavsalaq narraak, suli qimġiktutq siutuqyua. Talliqġia puyuuġtullaħaqtuq saumianiñ, Piġasullaanik niuqatq pisuagunaji, suli malġuk niuġuluurak suvaanun salumautik nagga nauraksram ivsaġata igruġniñ igġivġia.

Aġnasalut irrusia: Mikilħaqtut aġusalunin, qulinik atausim avvaġanighu ukmaisillaaqatut, suvait suvaliviani nuisasuurut ataani narraak makġilaani. Aġusalut irrusia: Aġilħaasuruktut aġnasuġniñ, iñuñiaq sisamatun ukmaisillaaqatut, tallimatun iraqutillarut niuġi, suli narraak makġilaani amitchuk. **Piyaanġisa irrusia:** aktillaakuluuraat malġuk-piġasut titaurat cm qavsiqurani ukiuni, ikatuami iñuusuurut, atauchimin aqvaluqsivlutik katipaguurut taima qavsi kavluutit sipitħuġi

Niqiñi taġiumi: iqaluit,niqqat, iyiksat, kakġilisat, uvilut,milħuyuit, suli qanusilimaat Qupġilut taġium natqaniħuat.

Iñuġuqniħat: suvait (tallimakġipiaq piġasut kavluutitniñ iñuñiaqġipiaq tallimakġipiat kavluutitnik suvait!) amaguġai makġilaani aġnasuum ukiq naatħuġu, tavraasii suvaiksianikkani aġnasuk suvaliħsaugitġilaaguuruq.

Niqġilatukanar: taġium pamiuqtuħuġa, amiksraq, allat puyugiut, suli aġruat iqaluit uugaġruatħu Naatagnaġruaq

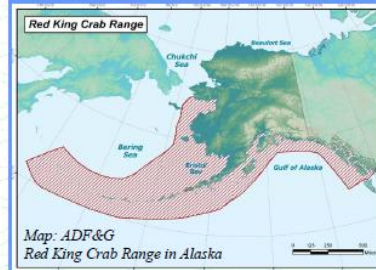
Iqalluutiqatġiit: kuulutut suli suħarataat puyugiatpaat.



Photo: NOAA
Female king crab egg



Photo: NOAA
2 yr. old juvenile



Freely Available Map Data

The screenshot shows a web browser window with the URL www.biomapalaska.org/sighting_map. The page features a sidebar with filters for 'Invertebrates', 'Fish', 'Mammals', 'Sighting Status', 'Username', and 'Date Range'. A central map of Alaska is displayed with a 'Terms of Use' dialog box overlaid. The dialog box contains the following text:

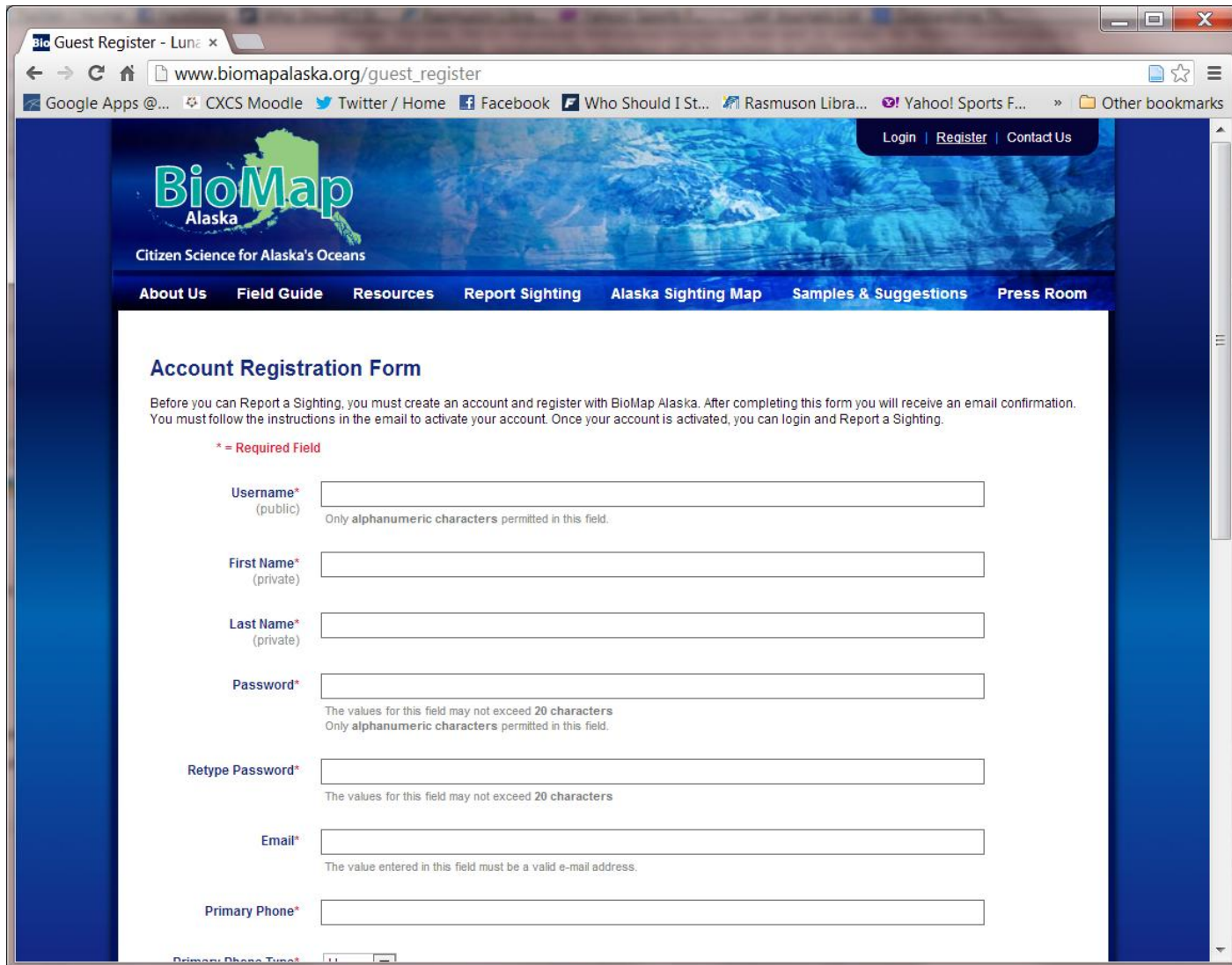
Terms of Use

To access and use this data you must agree to cite the source of the data. Please use the following citation:

Biomap Alaska. 2012. Confirmed Sightings Database. A joint product of the Alaska Sea Life Center, the University of Alaska Fairbanks International Arctic Research Center, and the Alaska Center for Climate Assessment and Policy.

At the bottom of the map area, there are buttons for 'Download Map Data', 'All Data', 'Filter Criteria Only', and 'Report Sighting'. The footer of the page includes navigation links: 'About Us', 'Field Guide', 'Resources', 'Report Sighting', 'Alaska Sighting Map', 'Samples & Suggestions', and 'Press Room'. Copyright information and design credit are also present.

Easy to Join



The image shows a screenshot of a web browser displaying the "Guest Register" page for BioMap Alaska. The browser's address bar shows the URL "www.biomapalaska.org/guest_register". The page features a blue header with the BioMap Alaska logo and the tagline "Citizen Science for Alaska's Oceans". A navigation menu includes links for "About Us", "Field Guide", "Resources", "Report Sighting", "Alaska Sighting Map", "Samples & Suggestions", and "Press Room". In the top right corner, there are links for "Login", "Register", and "Contact Us".

Account Registration Form

Before you can Report a Sighting, you must create an account and register with BioMap Alaska. After completing this form you will receive an email confirmation. You must follow the instructions in the email to activate your account. Once your account is activated, you can login and Report a Sighting.

* = Required Field

Username*
(public)
Only alphanumeric characters permitted in this field.

First Name*
(private)

Last Name*
(private)

Password*
The values for this field may not exceed 20 characters
Only alphanumeric characters permitted in this field.

Retype Password*
The values for this field may not exceed 20 characters

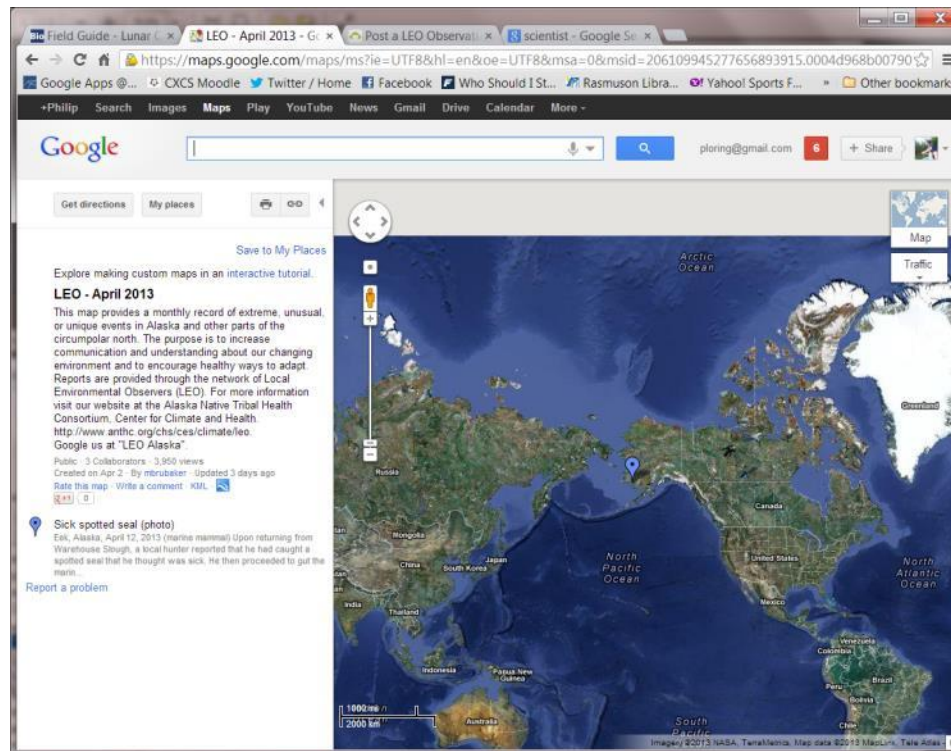
Email*
The value entered in this field must be a valid e-mail address.

Primary Phone*

Primary Phone Type*

BioMap Alaska and LEO?

- We need your help to roll out, and to and evaluate the system's utility for logging observations!



Thanks! Questions?

- Funded by:
 - The Arctic Landscape Conservation Cooperative
 - Alaska Center for Climate Assessment and Policy

- Project Team:
 - Howard Ferren, ASLC
 - Rebekka Federer, ASLC
 - Maribeth Murray, IARC
 - Philip Loring, ACCAP