

Virtual BioBlitz at Oregon's Marine Reserves

KICKOFF AND ORIENTATION WEBINAR

June 22, 2021

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Webinar Topics

- What is a BioBlitz?
- Oregon's Marine Reserves
- Tidepool Etiquette
- Safety
- Introduction to PRIMED Network
- How to Participate Using iNaturalist
- When and where to go at each Marine Reserve

What is a BioBlitz?

- A BioBlitz is an intense period of biological surveying to record all the living species within a designated area.
- Our Project uses the iNaturalist website and app to collect, store and share the data we gather. Observations can be curated by the community for accuracy of identification.



Why BioBlitz?

- Our goal is to catalogue the species diversity of the **intertidal regions adjacent to the marine reserves.**
- We also aim to **raise awareness** of Oregon's marine reserves and their use as a management tool.
- These annual efforts will **help document potential shifts** in species presence/absence.
- This year we are teaming up with the PRIMED Network to look at animal health as well



Who can do a BioBlitz?

- **ANYONE** can participate in a BioBlitz event.
- Using the iNaturalist app, you can connect with a BioBlitz project (i.e. Cape Perpetua BioBlitz Series).
- Take a picture of an animal you find in the tidepools.
- If you don't know what it is, someone else can identify it from anywhere in the world!

The Cape Perpetua BioBlitz Series

About Members 131

The major goals of this project are:

- To help coordinate efforts for the development of a database of species presence in the Cape Perpetua greater area along Oregon's central coast. This area has recently been designated a Globally Significant Important Bird Area for the

[Read More >](#)

[Project Journal](#)

Overview **7,339** OBSERVATIONS **1,219** SPECIES **970** IDENTIFIERS **711** OBSERVERS [Stats](#)

Tidepool Creatures



Giant Green Sea Anenome



Aggregating Anenome



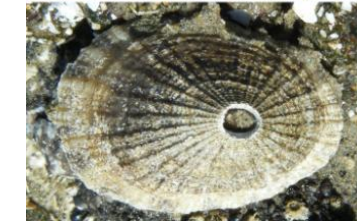
California Mussel



Ochre Sea Star



Purple Sea Urchin



Keyhole Limpet



Katy Chiton



Mossy Chiton



Lined Chiton

Seabirds & Shorebirds



Tufted Puffin



Pigeon Guillemot



Brown Pelican



Common Murre



Cormorant



Rhinceros Auklet



Black Oystercatcher



Western Snowy Plover

Oregon's Marine Reserves

- Five Marine Reserves
- Nine Associated Marine Protected Areas
- Went into effect in 2012, 2014, and 2016
- Managed by Oregon Dept. of Fish and Wildlife (ODFW), based in Newport
- Community groups at each marine reserve support community science, outreach and education



Oregon's Marine Reserves

Goals:

- Conserve marine habitats and biodiversity
- Scientific research
- Avoid significant economic impacts

Marine Reserves:

- All removal of marine life is prohibited
- Ocean development is prohibited

Marine Protected Areas:

- Ocean development prohibited
- Some fishing allowed (varies by site)



Pick your place

- Opportunities at each of the five marine reserves
- You can also BioBlitz in your backyard or local park



Safety: Intertidal areas

- Pick a day and time when low tide time, weather, and ocean swell are favorable.
- Choose a low tide when daylight is plentiful.
- Arrive at least 1 hour before slack tide.
- Be mindful of ocean conditions.
- Watch your step.
- ▣ ***Never turn your back on the ocean!***
Oregon is prone to sneaker waves and other unsafe conditions. Be vigilant.

Safety: COVID-19

Follow current Oregon Health Authority guidelines and current State and local rules.

- Face coverings:
 - Encouraged in outdoor public spaces when physical distancing is not possible and for people who are not vaccinated.
- Practice physical distancing of at least six (6) feet from people you do not live with
- Stay home if you are sick.
- High risk? Stay home.
- Wash hands frequently, for at least 20 seconds or use hand sanitizer
- Cover coughs/sneezes and avoid touching your face.

Tidepool Etiquette

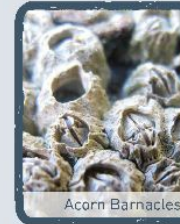
- Walk on bare rock
- Please do not remove anything - even shells provide habitat
- Return moved items back where you found them
- Touch gently with one finger
- Many animals attach to the rock – please don't pry them off

IT'S ALL CONNECTED

Tidepools - Rocky Reef - Marine Reserves

↓ Do you have proper tidepool etiquette? Start here to find out!

Do you step on things?



Acorn Barnacles

Yes: It is safest for you and marine organisms to walk on the sand or bare rock. Please do not use a walking stick, it applies immense pressure that can be deadly to fragile organisms.

No: Rolling, hovering, and crawling count too!

Do you do things quickly?



Purple Urchin

Yes: Slow down, enjoying nature is not a race!

No: Quietly observing tidepools is the best way to see things that would otherwise go unnoticed.

Do you like to be forcibly poked?



Giant Green Anemone

Yes: WHY???

No: Neither do marine organisms! Touch animals gently with one wet finger. No uncomfortable poking or prodding necessary.

Do you have bulging biceps?



Ochre Stars

Yes: Keep those in check! Prying organisms off rocks could be lethal. Please leave animals attached to their rocks.

No: Me neither!

Do you shoplift?



Hermit Crab

Yes: Don't take me!

No: Please do not remove anything from the beach or tidepool. It is hard to find an empty shell with no other living thing in it or on it. Shells are critical habitat for many organisms.

Do you leave messes?



Purple Shore Crab

Yes: WHY???

No: The rocks, shells, and seaweeds give protection to the animals living below; including the ones you don't see. Please return moved items back exactly the way you found them.

Have you ever been abducted?



Blue Top Snail

Yes: Congrats on your escape! Make sure marine organisms survive their encounter as well. If you must pick an animal up, keep your hands low to the ground so they don't have far to fall in an accident. Return inhabitants promptly to their home.

No: Stay safe! I hear it is not much fun.

Many tidepools are included in Oregon's Marine Reserves and are special places for people and animals alike! Marine Reserves are areas that have been set aside to protect animals and their homes.



www.oregoncoast.com/info/marinereserves



PRIMED
NETWORK

Primary Responders In Marine Emergent Disease



PRIMED: Primary Responders in Marine Emergent Disease

www.PRIMEDNetwork.org

The mission of PRIMED is to detect, monitor, and effectively respond to marine wildlife disease emergencies in a changing ocean.

Ecology and Environment



Epidemiology



Network Response




Mitigation and Remediation

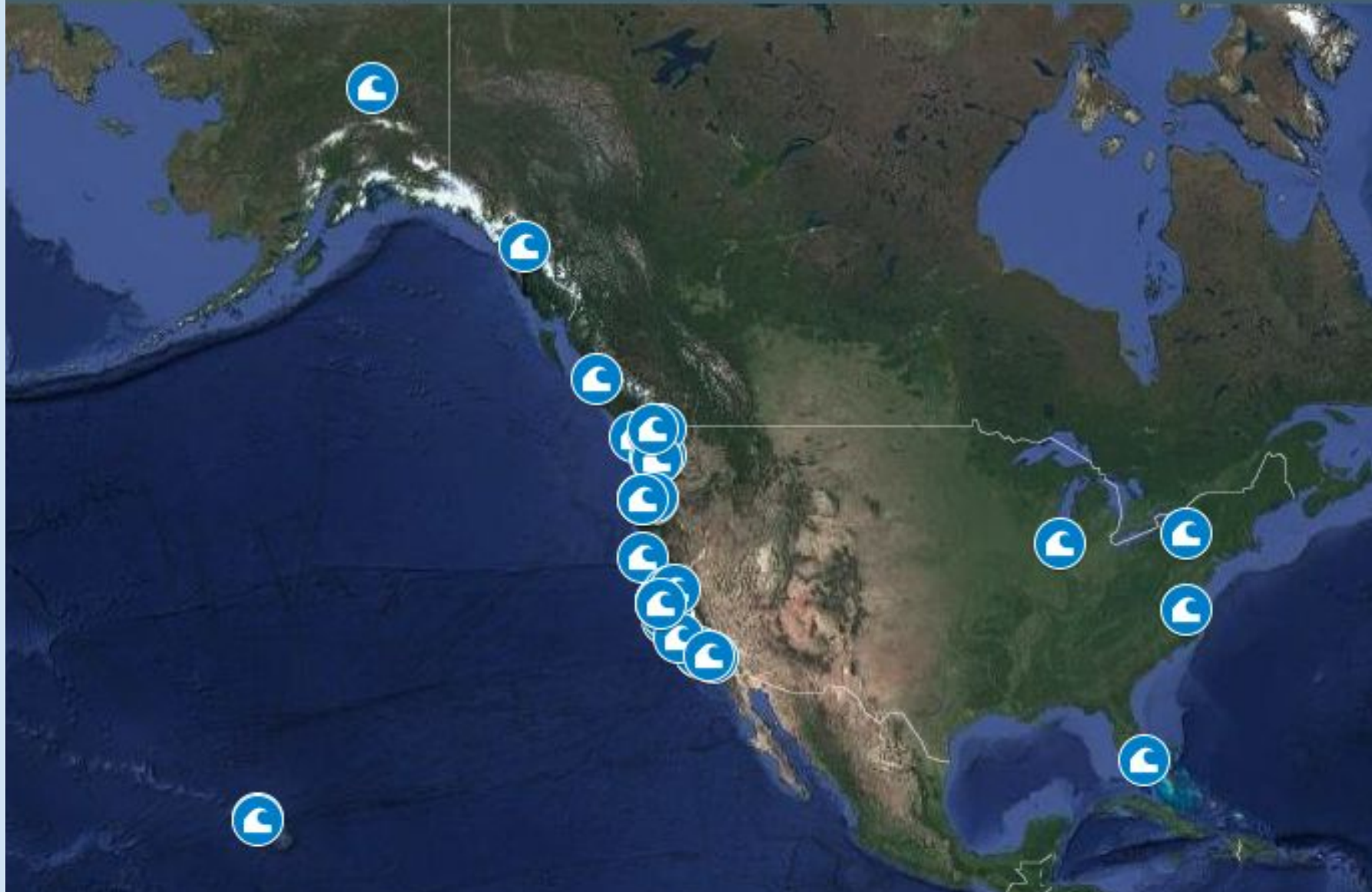




PRIMED Network Locations August 2020



 This map was created by a user. [Learn how to create your own.](#)



www.primednetwork.org

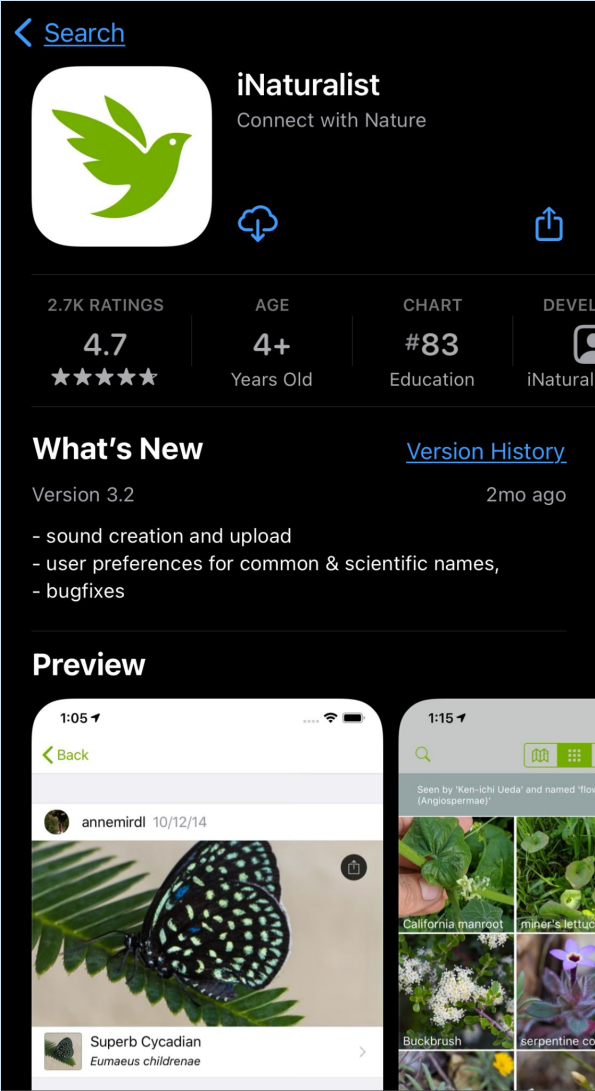
What is iNaturalist?

- Online social network of naturalists, community scientists, and researchers
- Identify plants and animals with photo recognition and the help of experts
- Connect with other naturalists
- Create data that scientists can use

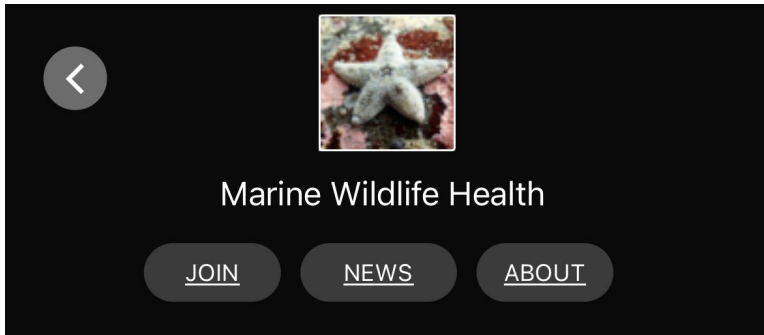
How It Works



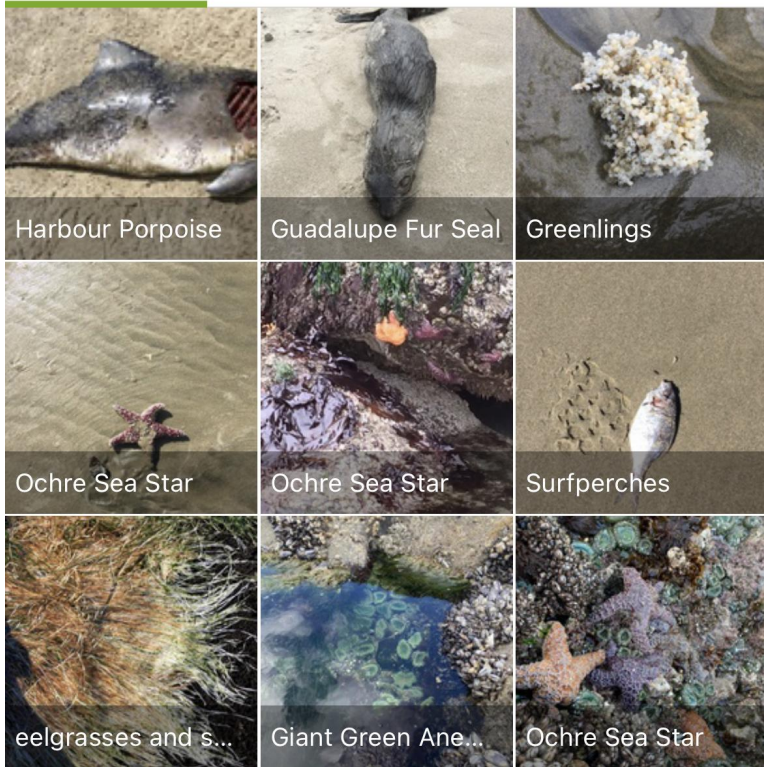
Download the iNaturalist App to your phone



- 1) Download iNaturalist App
- 2) Make an account
- 3) Do this at home!



190 OBSERVATIONS 67 SPECIES 20 OBSERVERS 92 IDENTIFIED



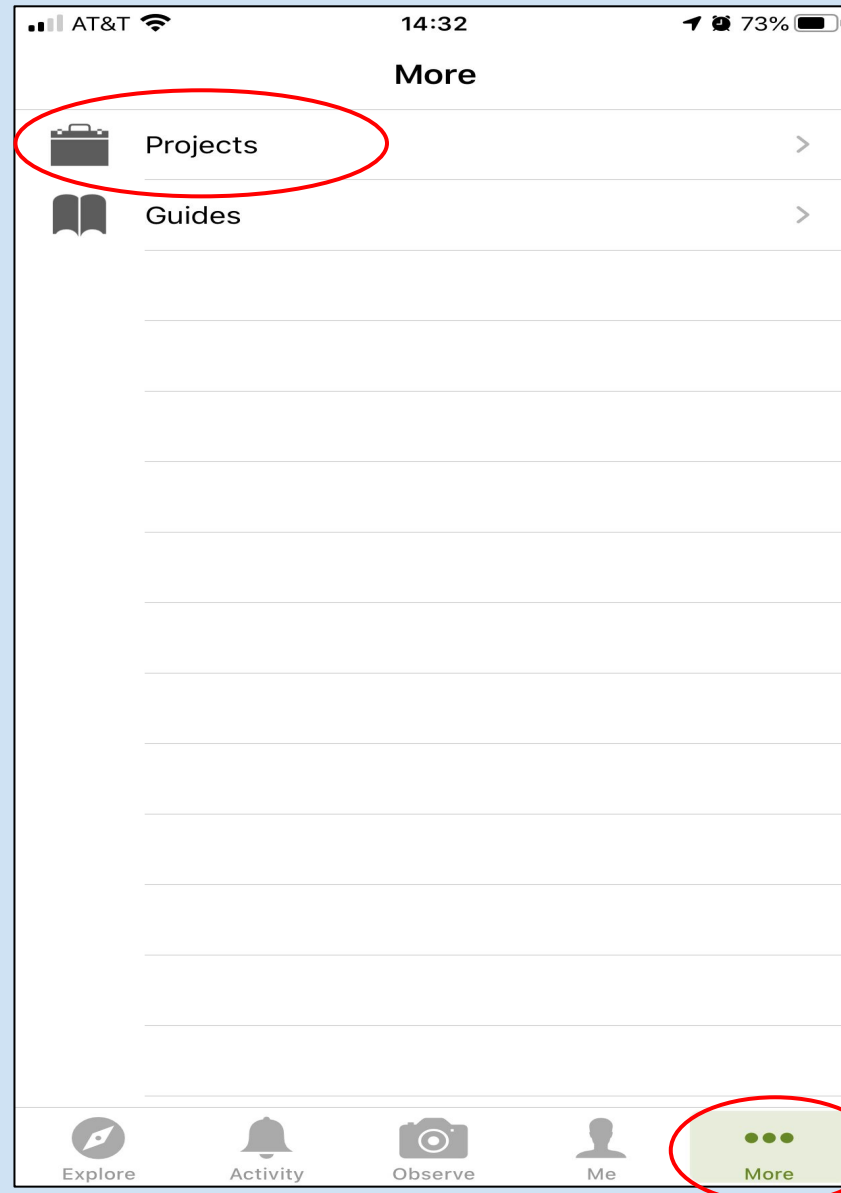
PRIMED iNaturalist Project: Marine Wildlife Health

- Help us collect information on health status of marine organisms
- Disease experts will help confirm if organisms are diseased
- PRIMED uses this information to track new diseases and existing outbreaks
- Submit observations of healthy organisms too!
- All observations will become part of BioBlitz
- Follow along today or see PRIMED iNaturalist tutorial for iPhone on YouTube

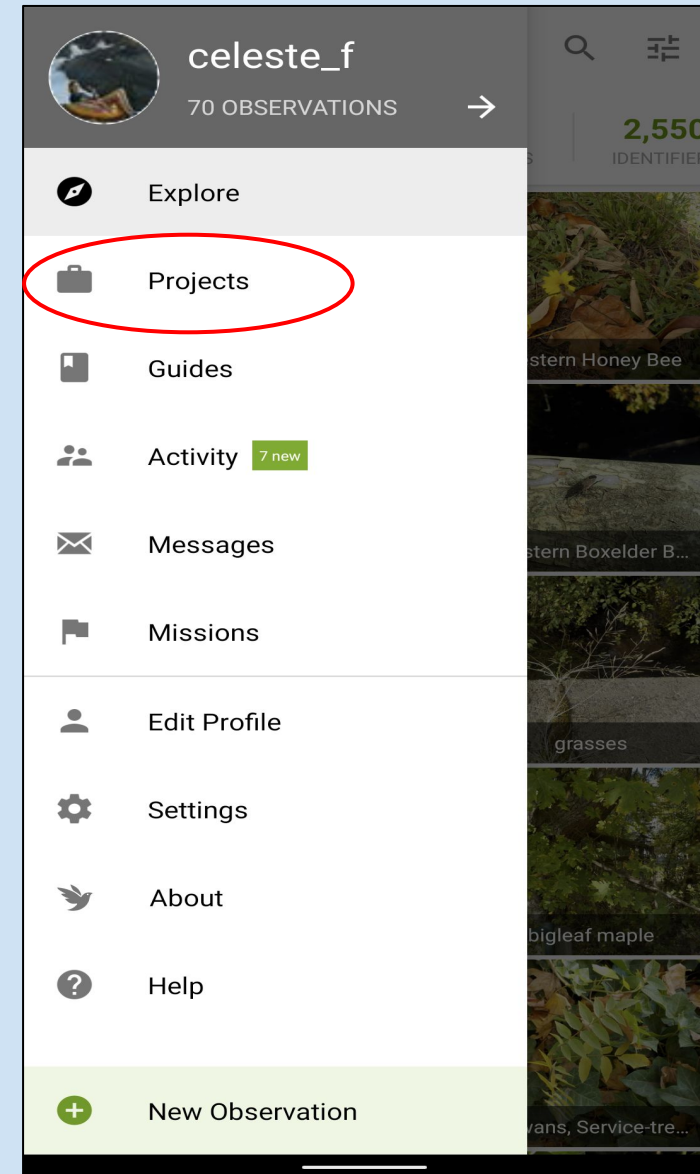
How to find a project on iNaturalist:

- 1) Select Projects
- 2) iPhone:
 - Select more ...
- 3) Android:
 - Select the main menu

Apple

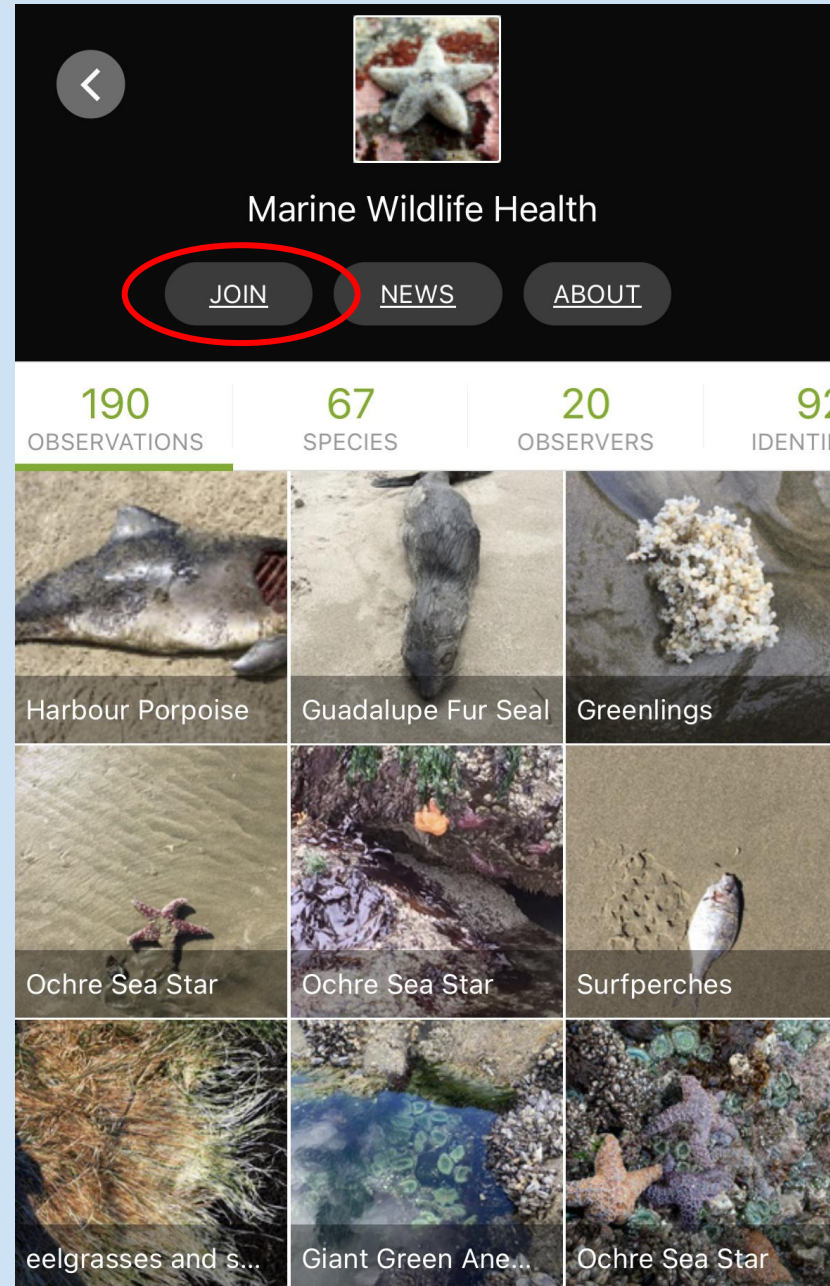


Android



How to find a project on iNaturalist:

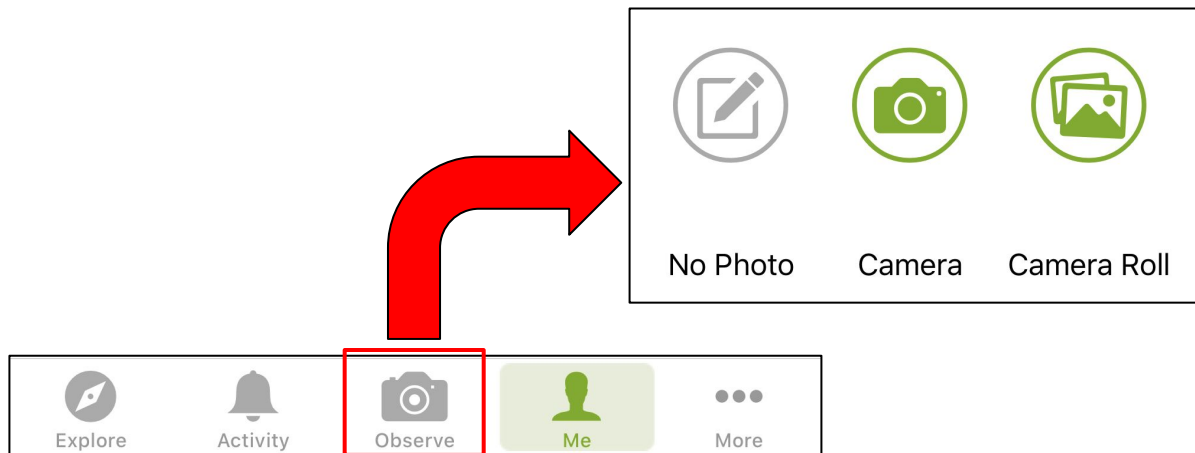
- 1) Search for MARINE WILDLIFE HEALTH, etc.
- 2) Join the project!



How to add an observation

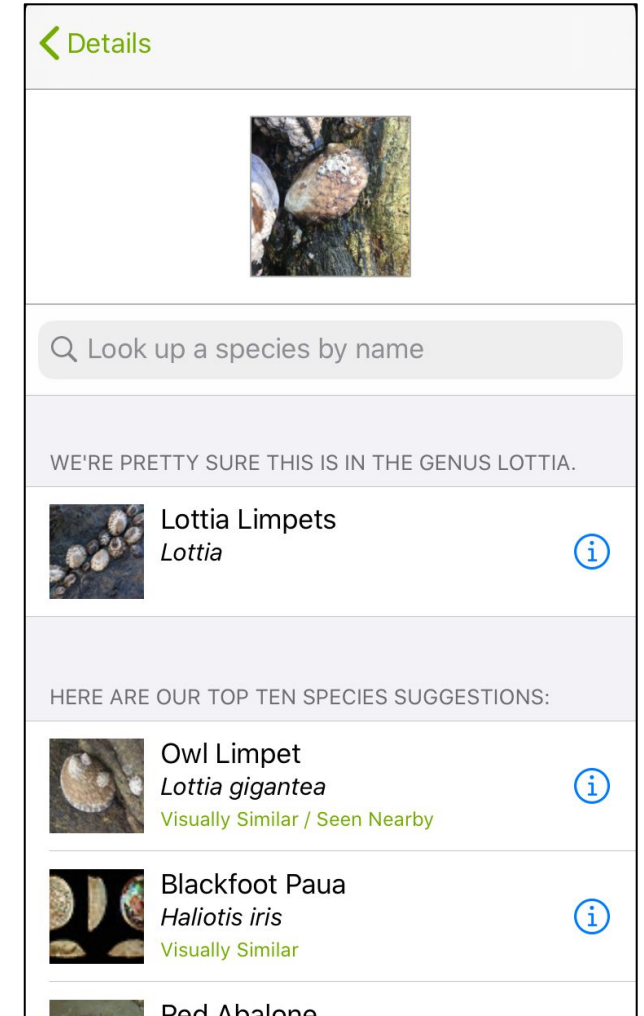
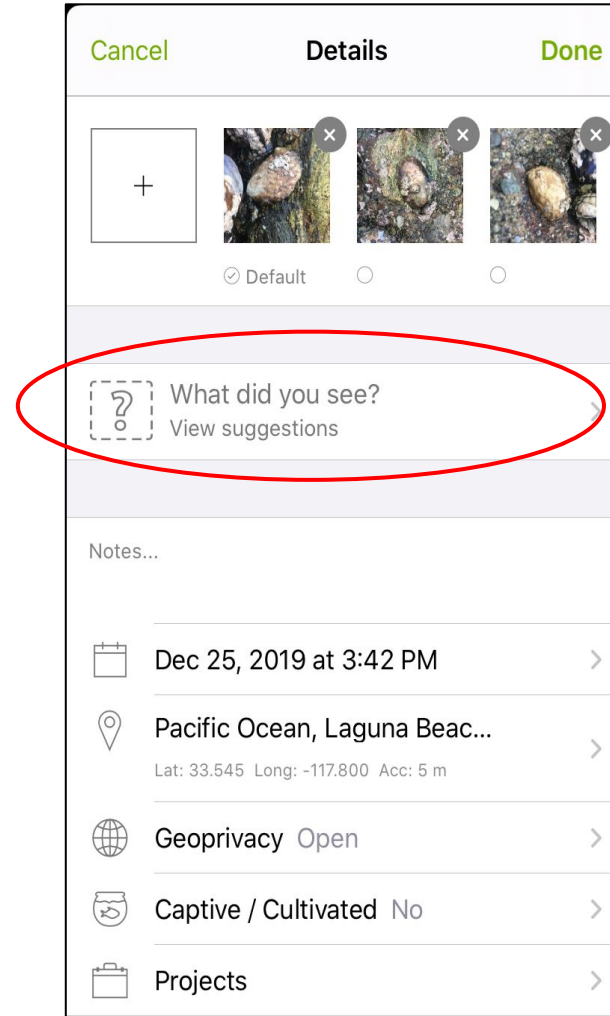
1. Take or select pictures

- Take pictures in the field or submit observation later using photos from camera roll



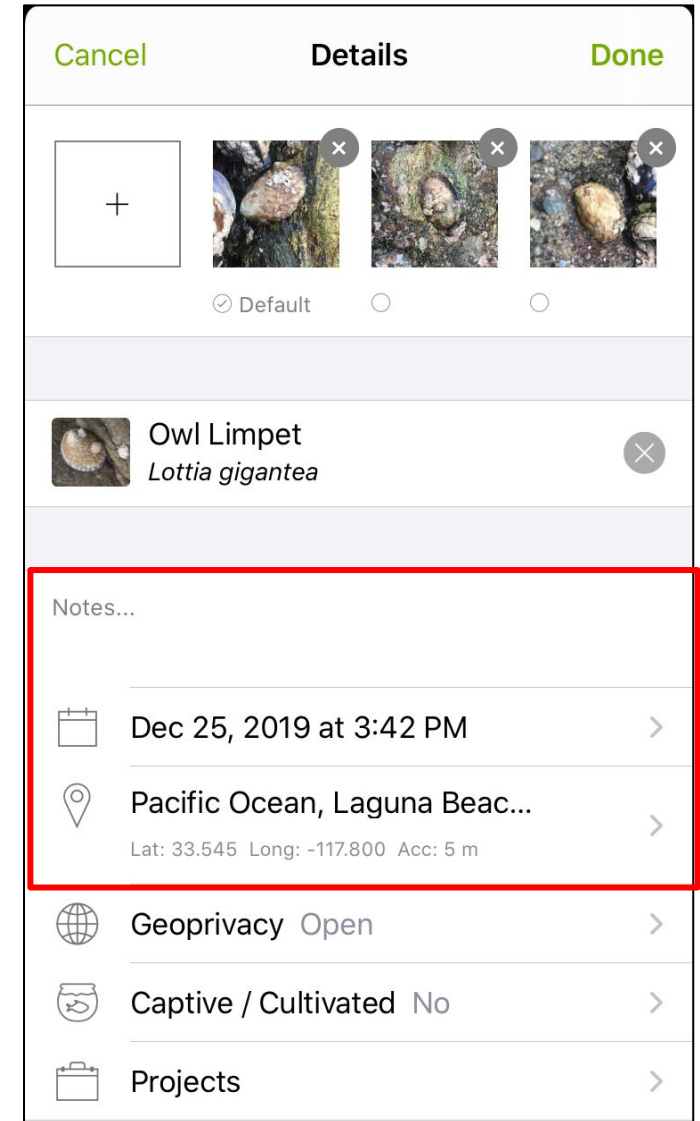
How to add an observation

1. Take or select pictures
2. **Identify organism:**
 - Click on “**What did you see**”?
 - Select species ID
 - iNat will suggest species ID (MAGIC!)



How to add an observation

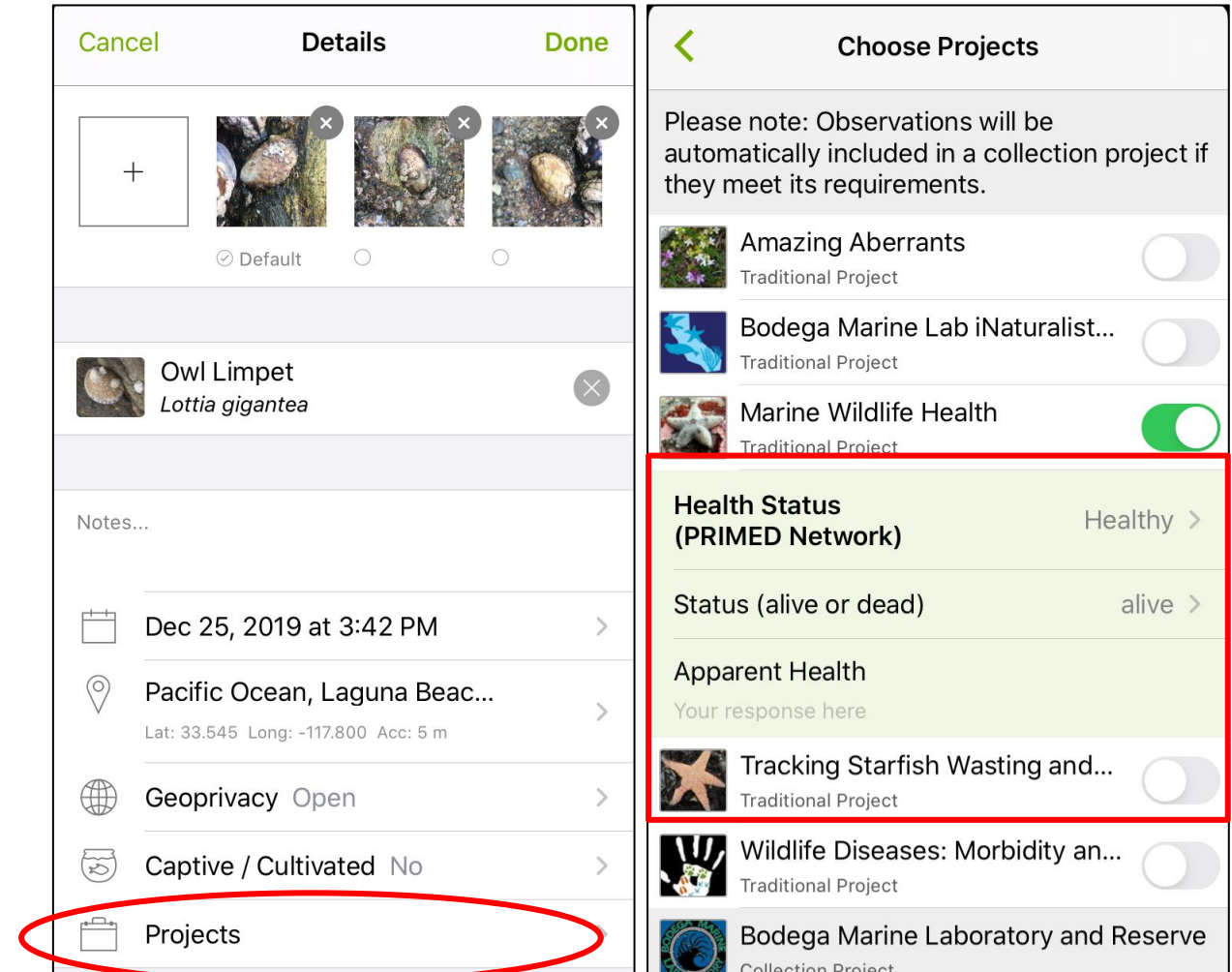
1. Take or select pictures
2. Identify organism
3. **Check time and location**
 - Date, time and location should be filled automatically, if not, you can enter these fields manually.



How to add an observation cont.

1. Take or select pictures
2. Identify organism: select “What did you see”?
3. Check time and location
4. **Add to Marine Wildlife Health Project**

To do this select “Projects” at bottom of page, then choose Marine Wildlife Health



How to add an observation cont.

1. Take or select pictures
2. Identify organism
3. Check time and location
4. Add to Marine Wildlife Health Project
5. **Add Health Data**

Choose Projects

Please note: Observations will be automatically included in a collection project if they meet its requirements.

- Amazing Aberrants (Traditional Project) [Toggle Off]
- Bodega Marine Lab iNaturalist... (Traditional Project) [Toggle Off]
- Marine Wildlife Health (Traditional Project) [Toggle On]**
- Tracking Starfish Wasting and... (Traditional Project) [Toggle Off]
- Wildlife Diseases: Morbidity an... (Traditional Project) [Toggle Off]
- Bodega Marine Laboratory and Reserve (Collection Project) [Toggle Off]

Health Status (PRIMED Network) Healthy >

Status (alive or dead) alive >

Apparent Health
Your response here

Marine Wildlife Health

UNKNOWN HEALTH = HEALTH STATUS UNDETERMINED; DISEASED = UNHEALTHY, POTENTIALLY DUE TO PATHOGEN OR DISEASE; NON-DISEASE ISSUE = UNHEALTHY, BUT LIKELY DUE TO NON-DISEASE CAUSE (E.G. INJURY, STRESS, DISTURBANCE); HEALTHY = NO VISIBLE ABNORMALITIES

- Unknown Health
- Healthy** ✓
- Diseased
- Non-Disease Issue

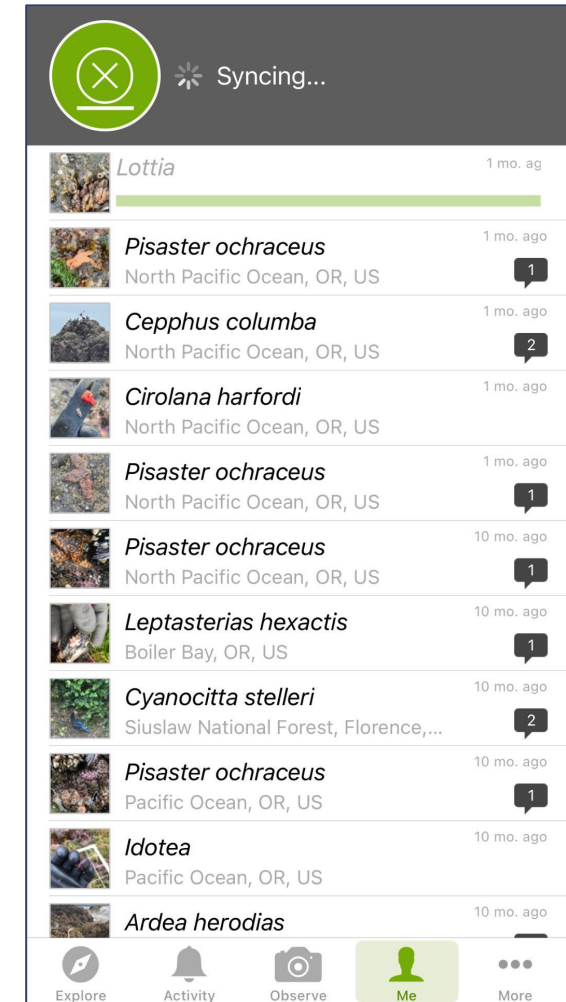
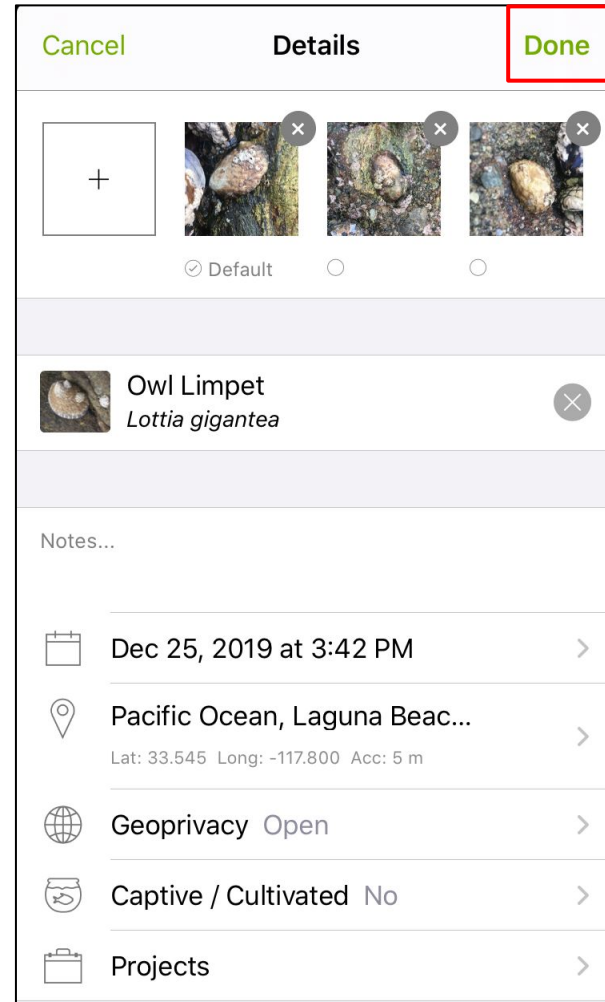
Marine Wildlife Health

- alive
- dead

Apparent Health
Healthy, happy and chilling on Christmas Day!

Done

Submit observation!



Ochre sea star - *Pisaster ochraceus*

Number 1



Number 2



Number 3



California mussel - *Mytilus californianus*

Mussel 1



Mussel 2



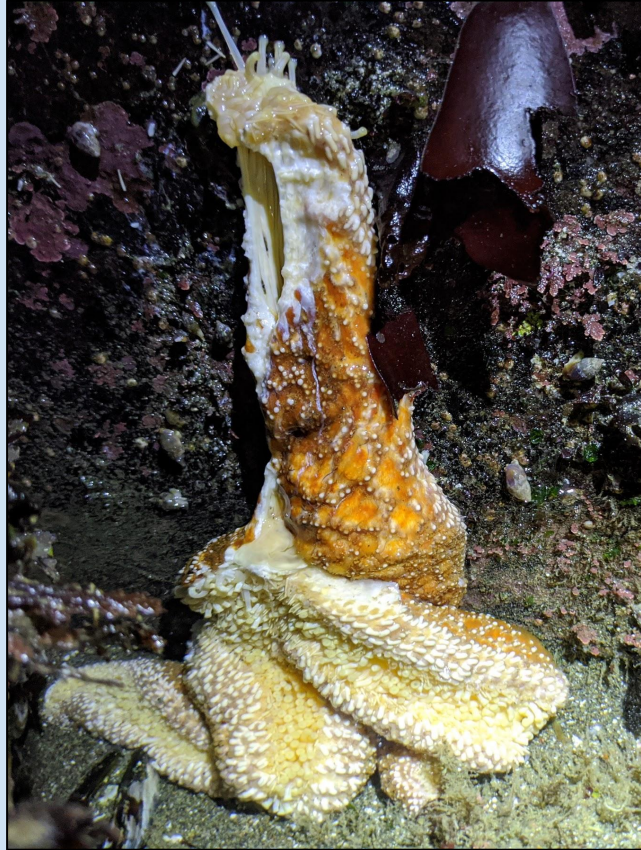
Ochre sea star - *Pisaster ochraceus*

Healthy



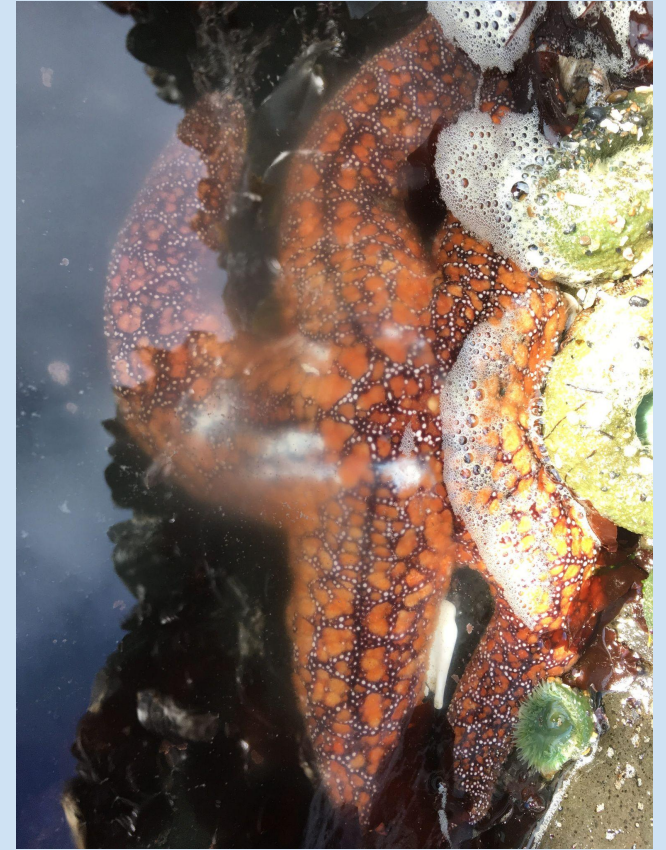
normal

Diseased



wasting disease

Healthy



spawning

California mussel - *Mytilus californianus*

Healthy



normal

Non-disease issue



heat wave

Cape Falcon Marine Reserve



Located on Oregon's north coast, just off of Oswald West State Park between Manzanita and Cannon Beach

Oregon's northernmost site

Includes a marine reserve plus two MPAs.

iNaturalist projects:

[BioBlitz 2021 at Cape Falcon Marine Reserve](#)

[The Cape Falcon Species Inventory](#)

Cape Falcon Marine Reserve



 MARINE RESERVE No removal of animals or seaweeds. No deployment of any fishing gear.	 WEST MPA [Marine Protected Area] You can only take salmon by troll and crab.
 SHORESIDE MPA [Marine Protected Area] You can recreationally use hook and line from the shore.	 NO SHORE FISHING
 PUBLIC PARK	

 Note: This summary does not replace the official regulatory language found in the Administrative Rules. Please contact your local ODFW office or consult regulations found at: www.OregonMarineReserves.com/rules

- Site is 20 square miles
- Effective January 1, 2016

Cape Falcon: Where to go



Cape Falcon: Where to go



Cape Falcon: When to go

Pick a low tide timed for when daylight is plentiful.

Arrive at least an hour before slack.

Be mindful of the ocean swell conditions.

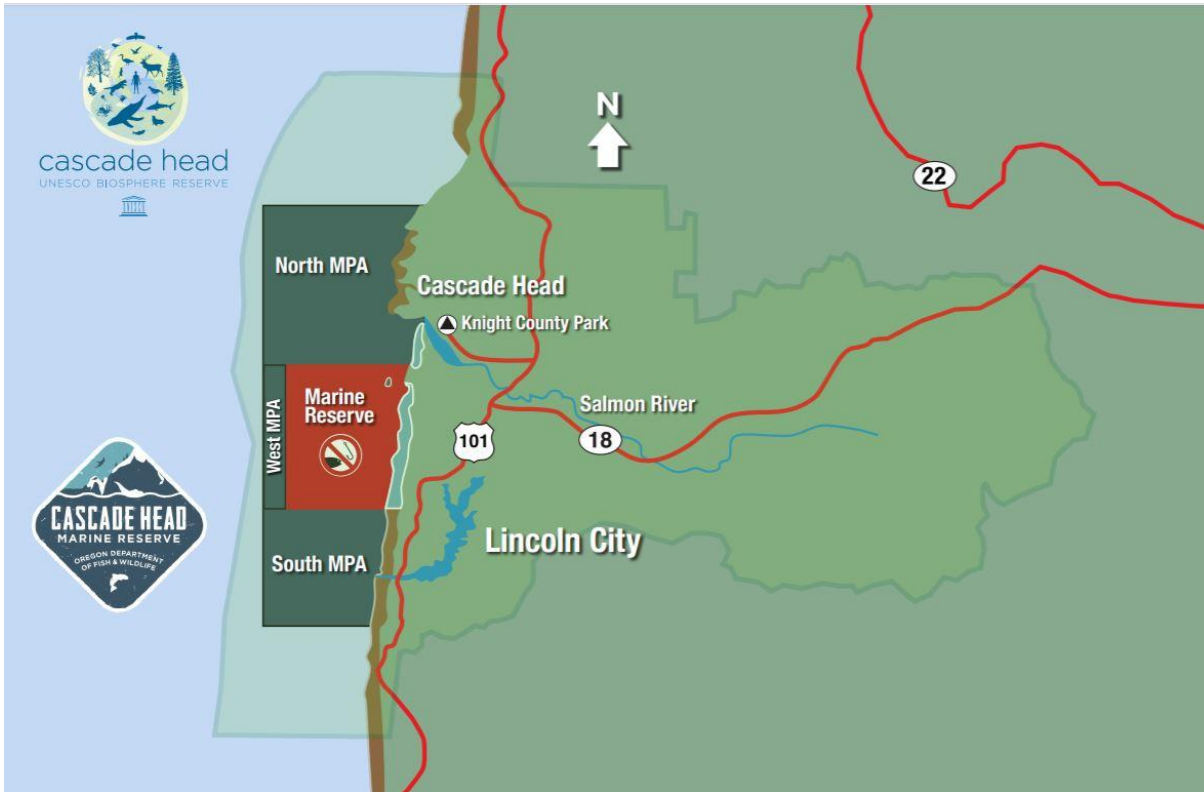
Check the current outlook before you go and when you arrive.

Always use your best judgement when visiting the ocean.

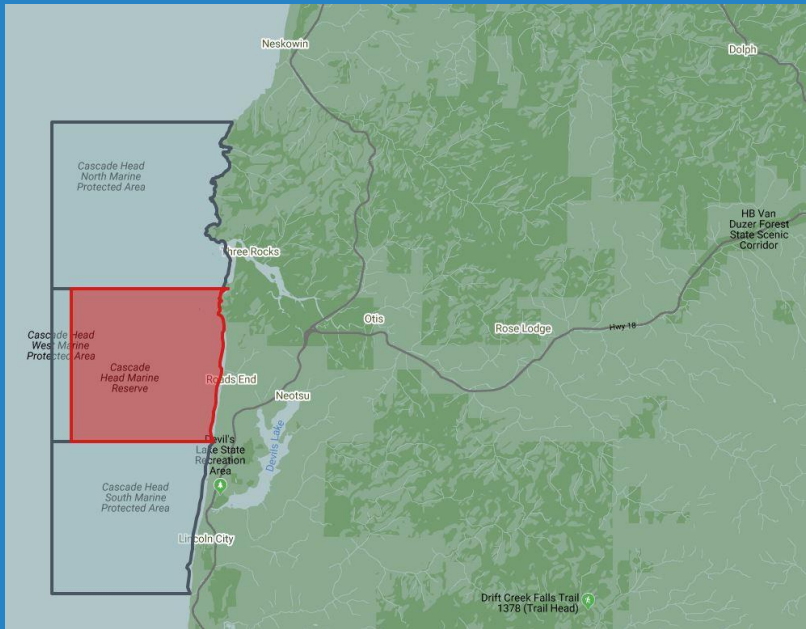
Manzanita, OR Minus Tides (approximate)			
Day	Date	Time	Feet
Friday	June 25, 2021	7:56 AM	-2.0
Saturday	June 26, 2021	8:44 AM	-1.8
Sunday	June 27, 2021	9:30 AM	-1.6
Sunday	July 11, 2021	8:31 AM	-1.1
Monday	July 12, 2021	9:05 AM	-1.1
Tuesday	July 13, 2021	9:38 AM	-1.0
Saturday	July 24, 2021	7:42 AM	-1.8
Sunday	July 25, 2021	8:26 AM	-1.7
Monday	July 26, 2021	9:06 AM	-1.4

Source: Dot's Fishing Guide

Cascade Head Marine Reserve

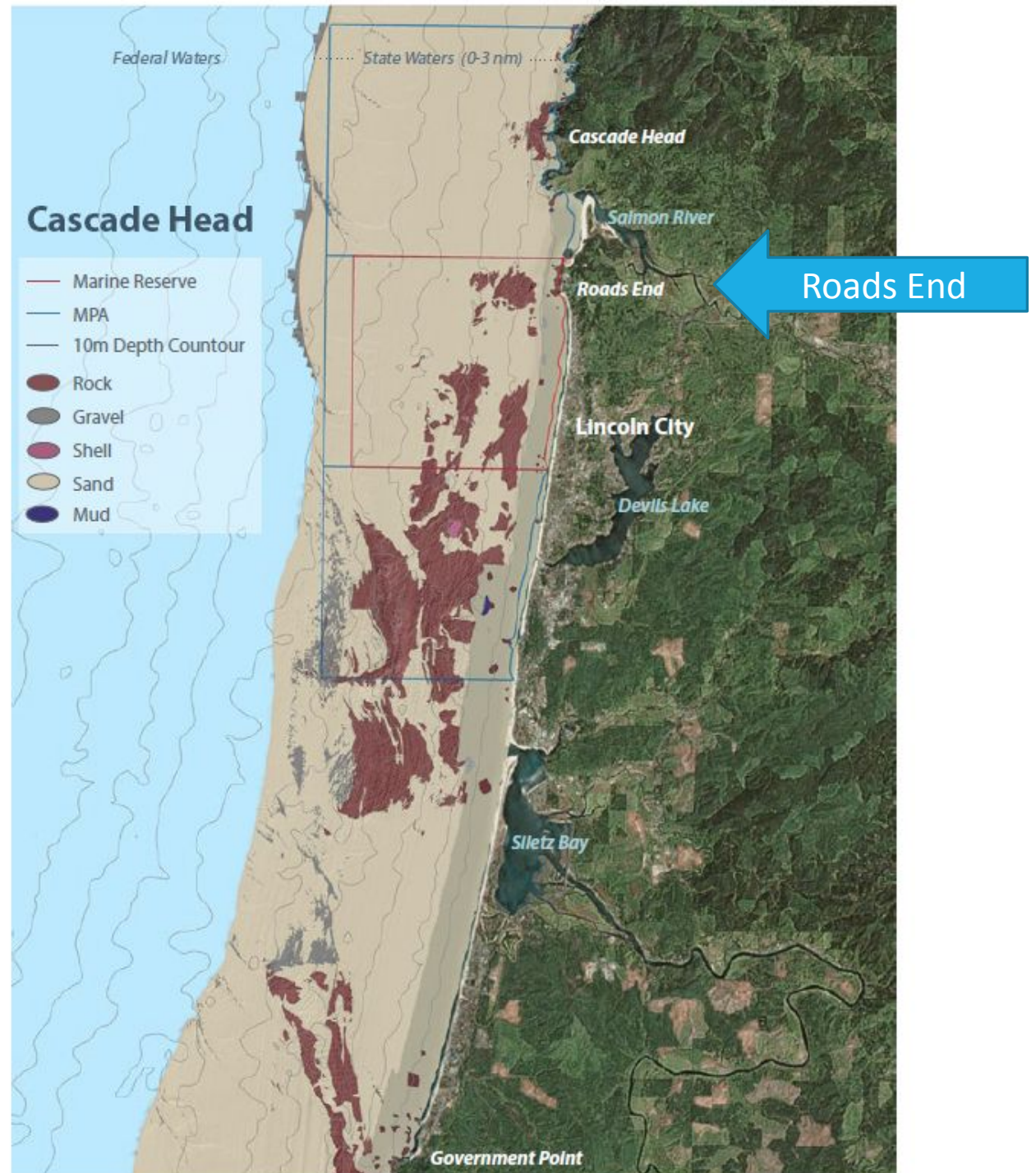


- Is part of the UNESCO Cascade Head Biosphere Reserve (CascadeHead.org)
- Lincoln City to Neskowin
- Consists of a Marine Reserve and 3 Marine Protected Areas
- Depth Range: 0-50 m (0-164 ft)
- Monitoring Began: 2012
- Harvest Restrictions Began: January 1, 2014



Cascade Head

- Boundaries
- Seafloor habitat map (ODFW)



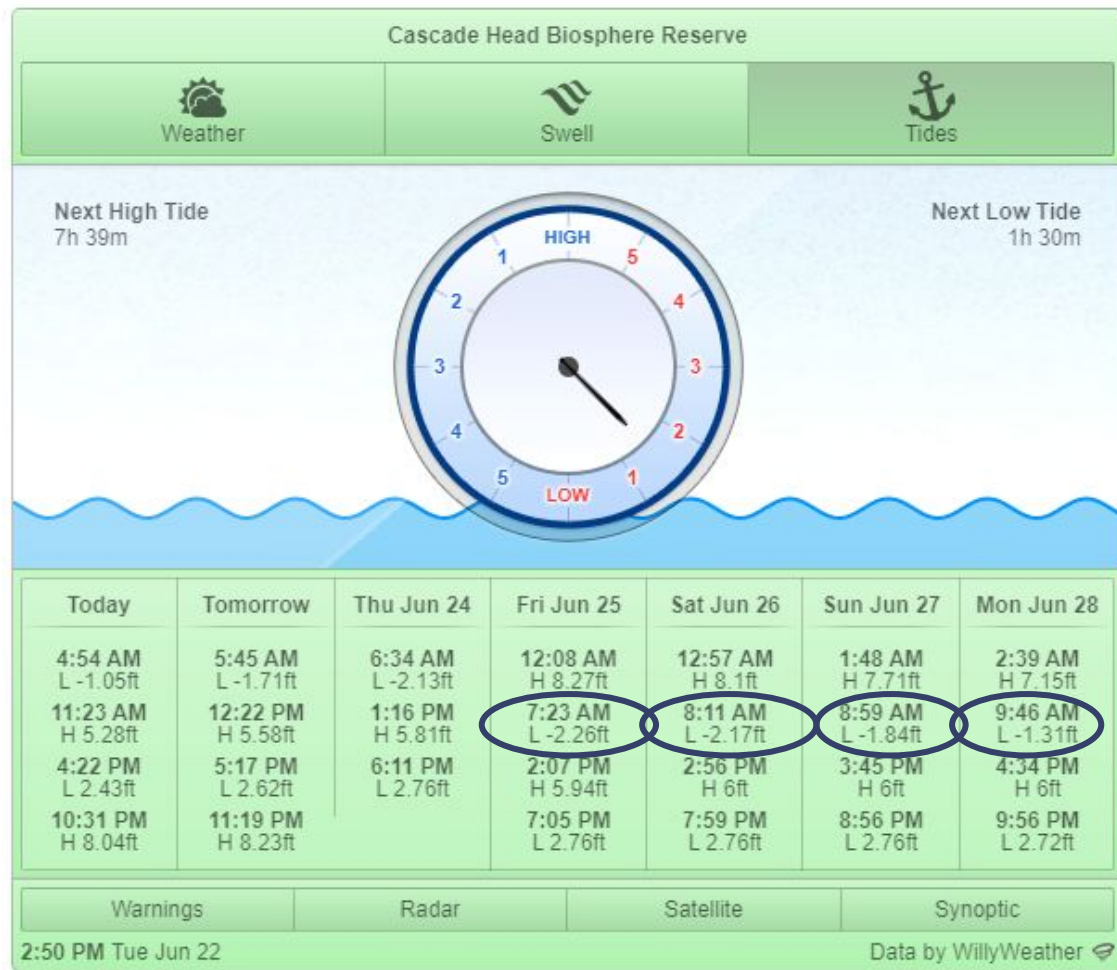
Cascade Head: Where to go



Parking / Facilities: Roads End State Recreation Area, Lincoln City

1. At the north end of Lincoln City, Turn West off Hwy 101 on to Logan Road.
2. Follow road to bottom of hill.
3. Parking at Roads End State Recreation Area.
4. Tidepools: 20 min beach walk at the north end of beach.

Note: Anywhere in red zone will count towards Bio-Blitz.



Find what works for you...

www.cascadehead.org/events

Visit event page of CascadeHead.org to check the predicted weather, swell conditions, and tides.

Minus tides anytime between **June 25 through July 25.**

Swells from 1-3 ' are best for tidepooling



cascade head
UNESCO BIOSPHERE RESERVE



When to go:
Check the Weather / Swell / Tides

Otter Rock Marine Reserve



- Located off the central Oregon coast, near the unincorporated town of Otter Rock.
- Oregon's smallest marine reserve at 1.2 square miles.

Otter Rock Marine Reserve

Seafloor habitat map (ODFW)



Otter Rock: Where to go



Low Tides At Otter Rock

JUNE

Date	AM	Feet
Tuesday, June 22	4:57	-1.5
Wednesday, June 23	5:48	-2.3
Thursday, June 24	6:37	-2.8
Friday, June 25	7:25	-2.9
Saturday, June 26	8:13	-2.8
Sunday, June 27	9:01	-2.4

JULY

Date	AM	Feet
Wednesday, July 21	4:44	-1.5
Thursday, July 22	5:37	-2.1
Friday, July 23	6:26	-2.4
Saturday, July 24	7:12	-2.5
Sunday, July 25	7:56	-2.3

When to go, how to visit:

- The dates listed have the lowest tides for each month and some of the lowest of the year
- It is best to arrive an hour before low tide so that it is still receding while you are there
- The rocks with green plants growing on them are VERY slippery. Be careful!
- Please respect the wildlife. Don't injure or remove them.



Cape Perpetua Marine Reserve

Oregon's largest marine reserve located on Oregon's central coast between Yachats & Florence

Includes a marine reserve, two MPAs and a seabird protection area

Contact: Tara DuBois

Cape Perpetua Collaborative, Communications Coordinator
capeperpetuacommunications@gmail.com

www.capeperpetuacollaborative.org

www.facebook.com/capeperpetuamarinereserve

<https://tinyurl.com/cpmr-youtube>

Where can you tidepool at Cape Perpetua Marine Reserve?

- Yachats State Park
- Cape Perpetua Marine Gardens
- Neptune State Scenic Viewpoint
- Strawberry Hill
- Bob Creek
- Ocean Beach Picnic Area
- Tokatee
- Heceta Head

Wednesday, June 23 - 5:22am (-1.7 ft)

Thursday, June 24 - 6:11am (-2.13 ft)

Friday, June 25 - 7:00am (-2.26 ft)

Saturday, June 26 - 7:48am (-2.17 ft)

Sunday, June 27 - 8:36am (-1.84 ft)

Monday, June 28 - 9:23am (-1.31)

Tuesday, June 29 - 10:09am (-0.69 ft)

Sunday, July 11 - 7:39am (-1.02 ft)

Monday, July 12 - 8:15am (-0.98 ft)

Tuesday, July 13 - 8:52am (-0.79 ft)

Sunday, July 25 - 7:30am (-1.61 ft)

Monday, July 26 - 8:12am (-1.25 ft)

Tuesday, July 27 - 8:52am (-0.69 ft)

A wide-angle photograph of a sunset over the ocean. The sun is low on the horizon, creating a bright orange and yellow glow that fades into a pale blue sky. The ocean is dark and calm, with several large, dark rocks scattered across the water. The foreground shows the gentle waves of the ocean meeting a sandy beach. The overall mood is serene and peaceful.

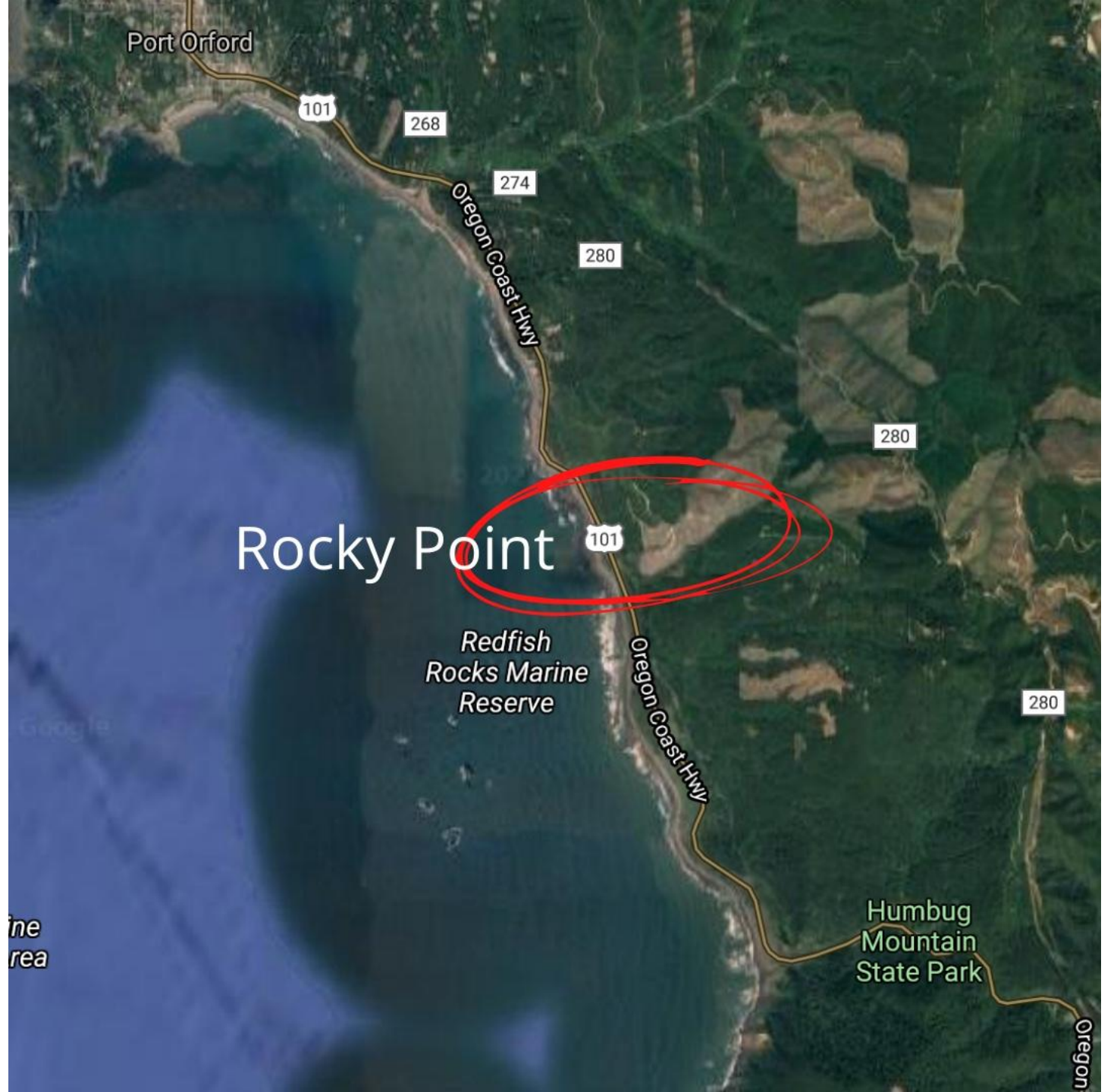
Redfish Rocks Marine Reserve

Redfish Rocks Marine Reserve

Seafloor habitat map (ODFW)



For best tidal access, park at Rocky Point just off the 101 halfway between Port Orford and Mt. Humbug



Good times to tidepool at Redfish Rocks

Day	Date	Time	Tide
Friday	6/25	7:09 AM	-2.6
Saturday	6/26	7:57 AM	-2.5
Sunday	6/27	8:44 AM	-2.1
Monday	6/28	9:31 AM	-1.6
Tuesday	6/29	10:17 AM	-0.9
Saturday	7/10	7:13 AM	-1.2
Sunday	7/11	7:49 AM	-1.3
Monday	7/12	8:24 AM	-1.3
Tuesday	7/13	9:01 AM	-1.1
Friday	7/23	6:09 AM	-2.16
Saturday	7/24	6:55 AM	-2.2
Sunday	7/25	7:39 AM	-2.0

Resources

Oregon Marine Reserves (OPRD): www.oregonmarinereserves.com

iNaturalist: www.inaturalist.org

Friends of Cape Falcon Marine Reserve: www.nehalemtrust.org/capefalconmr

Cascade Head Biosphere Reserve: www.cascadehead.org

Friends of Otter Rock Marine Reserve: www.facebook.com/FriendsofOtterRockMR/

Cape Perpetua Collaborative: www.capeperpetuacollaborative.org

Redfish Rocks Community Team: www.redfishrocks.org