# MBTA and Offshore Wind

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*Finnish Wind Power Association*

*Photos by Roberta Swift (USFWS) unless specified*

# MBTA and Offshore Wind

Agenda

- MBTA
- Incidental take
- ESA
- What we know
- What we don’t know
- What we can do

# The Migratory Bird Treaty Act -1918

*The Cornerstone of Bird Conservation*

**PROHIBITS** taking "***at any time, by any means or in any manner****…any migratory bird, [or] any part, nest, or egg of any such bird*" unless authorized by the Secretary of the Interior

**ALLOWS** permits for the taking of migratory birds that are "*compatible with the terms*" and "*carry out the purposes*" of the migratory bird conventions

# MBTA Take Definition

*Defined in Regulation not the Act*

**Under the MBTA it is illegal to**:

**…**pursue, hunt, shoot, wound, ***kill***, trap, ***capture, or collect***, or attempt to hunt, shoot, wound, kill, trap, capture, or collect…

MBTA does ***NOT*** protect ***Inactive*** nests

*But…you are prohibited to possess the nest*

MBTA does ***NOT*** protect habitat

# MBTA Take Definition

*Intentional vs Incidental*

**Intentional Take**

- Take that results from the purpose of the action
- Generally, permits are available for these actions

**Incidental Take**

- Take that directly and foreseeably results from, but is not the purpose of an activity
- Currently, no permits available for these actions
- Rule-making being considered

# MBTA Take Home Messages

- Killing a bird intentionally or incidentally is prohibited
- Only active nests are protected – not inactive nests
- Habitat is not protected
- Hazing/harassment are not prohibited


**If it's protected by MBTA, Eagle Act, and ESA, you must be in compliance with all that are applicable**

# Intentional Take - Common Permits

- **Scientific Collecting** - for a study where bird parts, tissues, etc. are collected and analyzed

- **Depredation -** removing active nests or birds from certain locations, economic conflicts (crop/livestock depredation), BASH

- **Special Purpose Miscellaneous**
  - Benefits bird pops, research, concern for individual birds, compelling justification
  - “Relocate” need to relocate a nest that is a concern
  - “Utility” industry wants to collect birds during post construction monitoring

# Incidental Take is Prohibited (MBTA)

*Reducing Project-related Impacts*

No Express Authorization for permitting incidental take

- DoD Readiness Rule
- NMFS Hawaiian Long-line fisheries (21.95 – Special Purpose)
- Island Invasive control permits (21.95 – Special Purpose)

**Primary strategy for incidental take is through Technical Assistance**

# Endangered Species Act

*Protect and Recover*

To protect and recover imperiled species and the ecosystems upon which they depend

# Definition of Take -- ESA

Statutory Definition:

"…***harass, harm***, pursue, hunt, shoot, wound, kill, trap, capture, or collect…"

- Harass is an act that creates a likelihood of injury by disrupting breeding, feeding, and sheltering behaviors

- Harm is an act that kills or injures wildlife

# Purpose

*Acts Comparison*

- **MBTA** – Conserve
- **ESA** – Recover

# Take

*Acts Comparison*

- **MBTA**
  - pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt thereof

- **ESA**
  - **harass, harm,** pursue, hunt, shoot, wound, kill, tra…llect, or to attempt to engage in any such conduct.

# Habitat

*Acts Comparison*

- **MBTA** – No provision
  - Must result in direct take of birds, nests, eggs, or parts thereof

- **ESA** – Can regulate if it constitutes harass or harm
  - May include significant habitat modification or degradation

# Endangered and threatened species


Marbled Murrelet (E)


Short-tailed albatross (E)

# Birds of Conservation Concern

https://www.fws.gov/media/birds-conservation-concern-2021

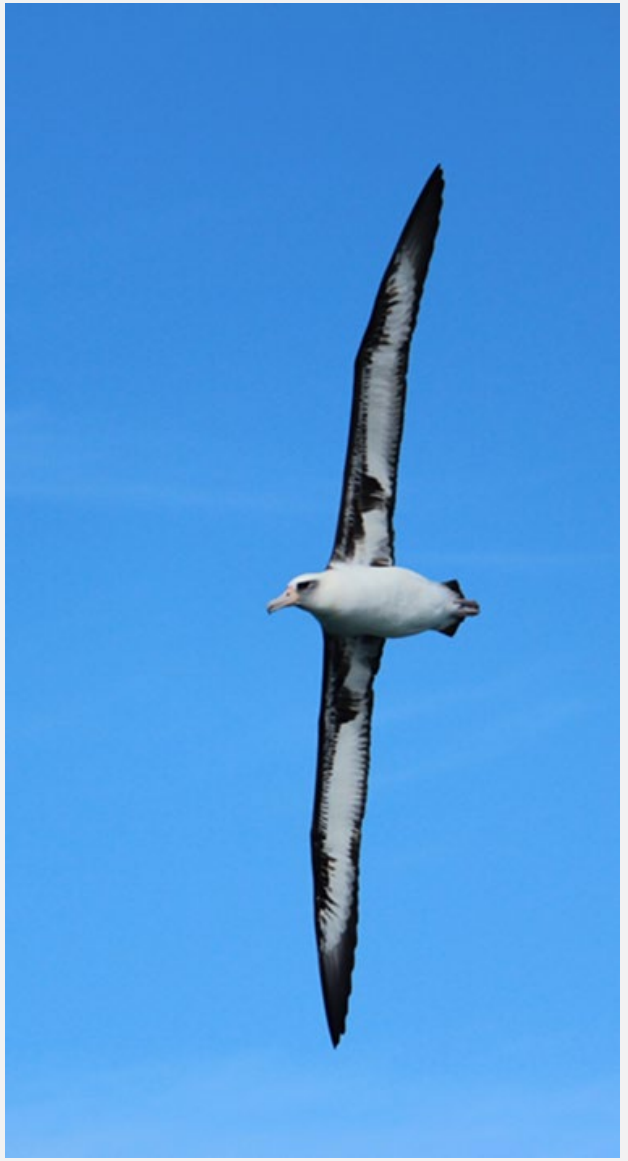
# What we know:
## *Anticipated Impacts of OSW on Birds*

**Birds are everywhere, even the remotest parts of the ocean**

- Flight height patterns vary by species and wind speed
  - Albatross concentrate along productive zones and upwelling
  - Phalaropes (a shorebird), storm-petrels are truly pelagic
- Collision: Death, injury
- Avoidance: increased energetic demands
- Displacement: loss of feeding, loafing habitat

… and on land…

- Development of transmission, distribution and other infrastructure

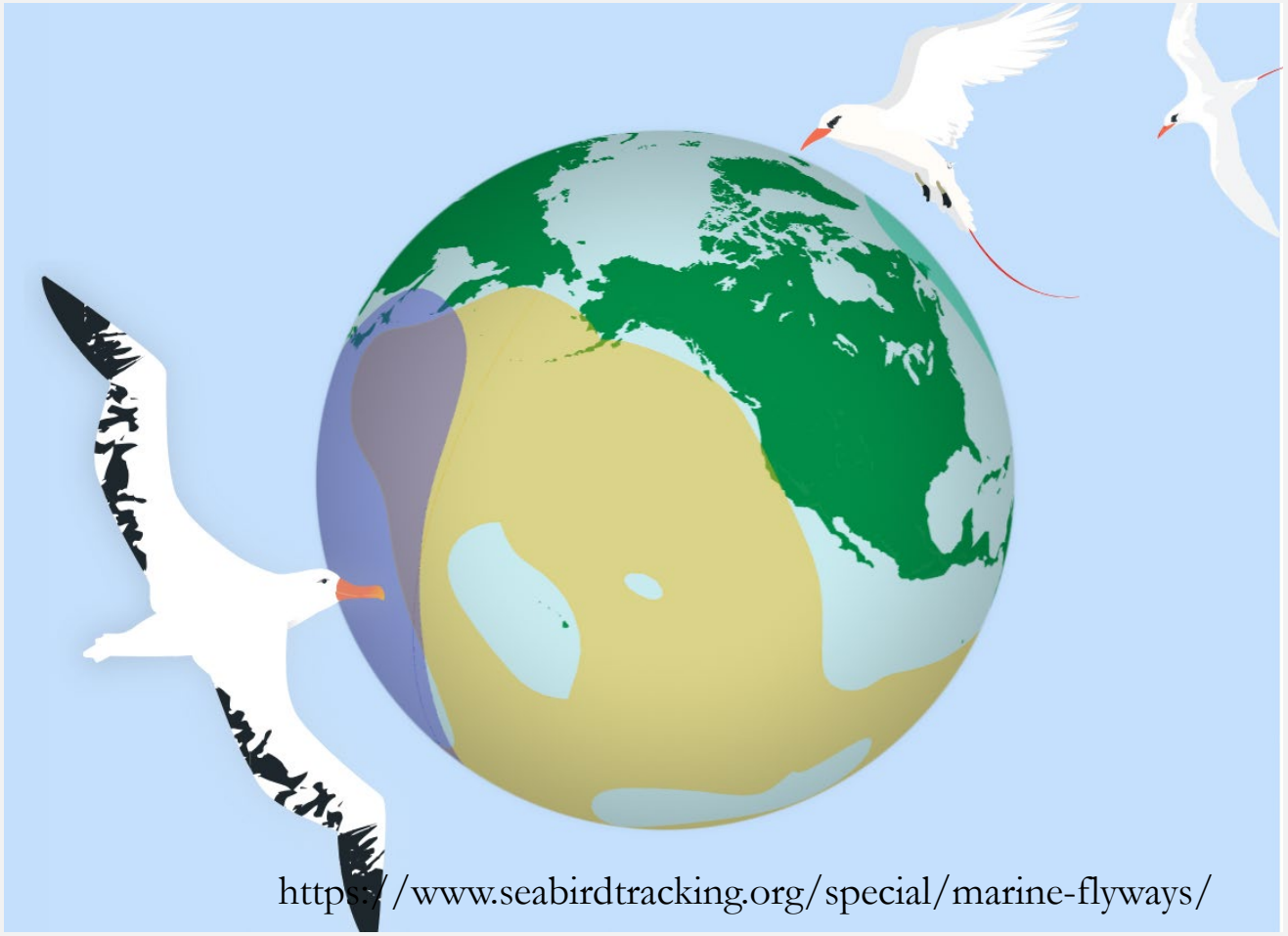


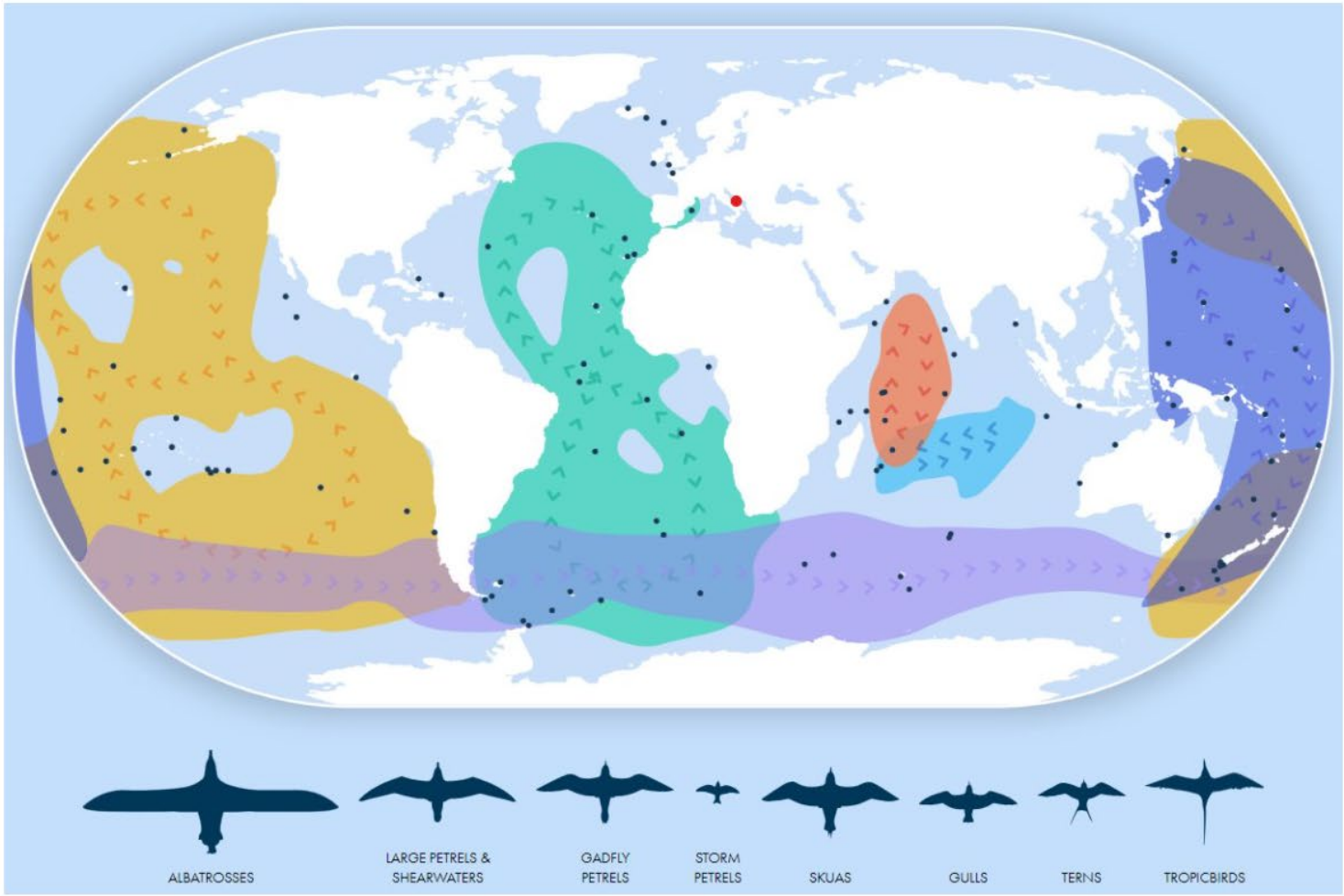
# What we don’t know…

**Flyway-level information for marine birds is incomplete**

- Each species does a different thing

**BirdLife International and partners are working to identify seabird flyways**



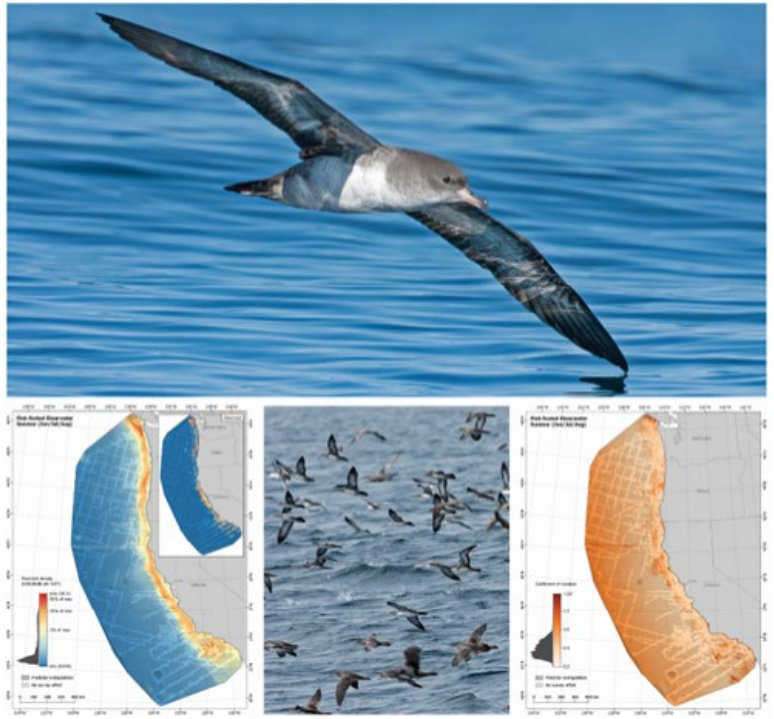



— *Current Database Status* —

| 168 | 435 | 252 | 1,351 | 53,288 | 38,065,769 |
|---|---|---|---|---|---|
| SPECIES TRACKED | COLONIES TRACKED | DATA CONTRIBUTORS | DATASETS | TRACKS | LOCATION POINTS |

OCS Study
BOEM 2021-014

# Modeling At-Sea Density of Marine Birds to Support Renewable Energy Planning on the Pacific Outer Continental Shelf of the Contiguous United States



US Department of the Interior
Bureau of Ocean Energy Management
Pacific OCS Region

BOEM
Bureau of Ocean Energy Management

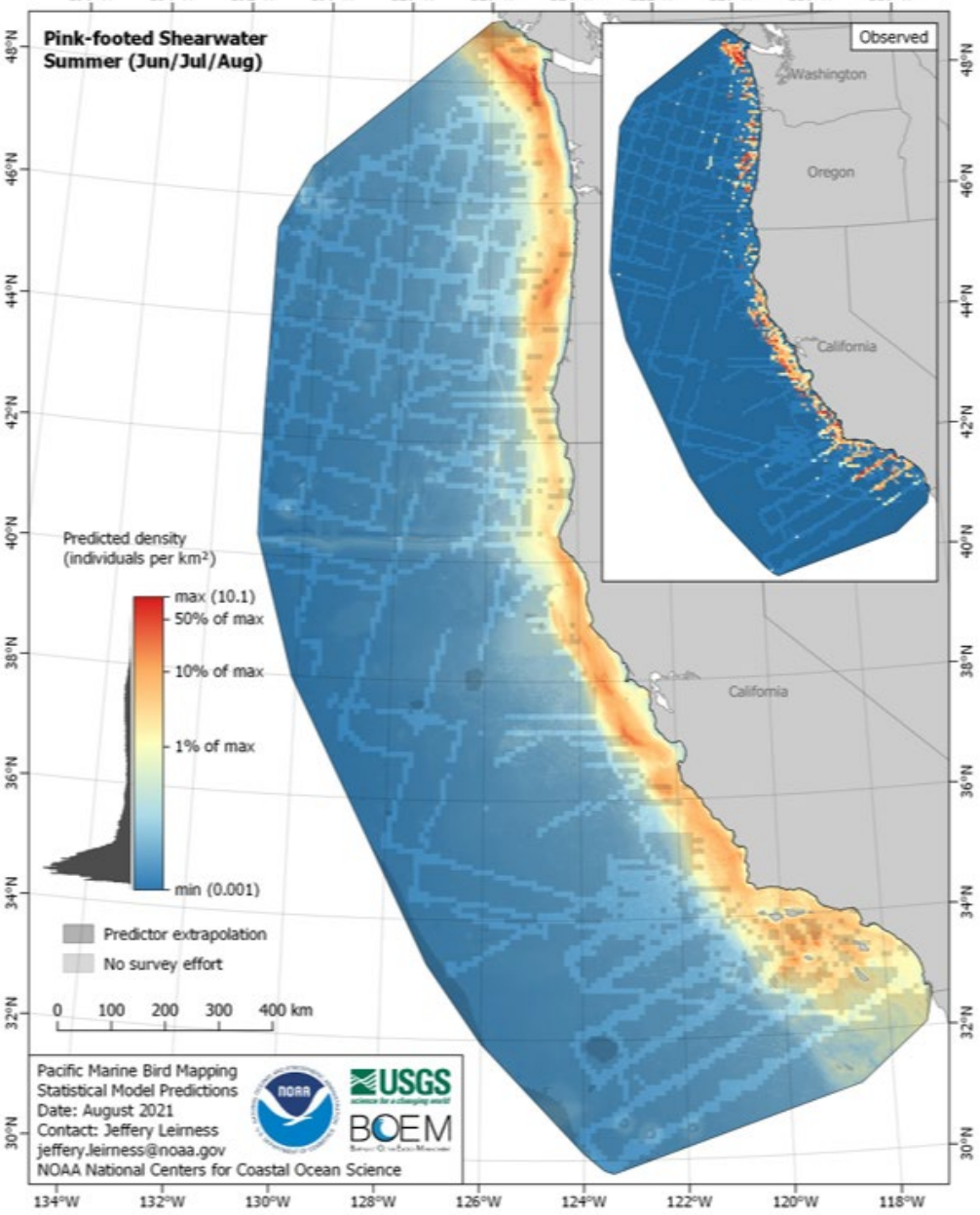
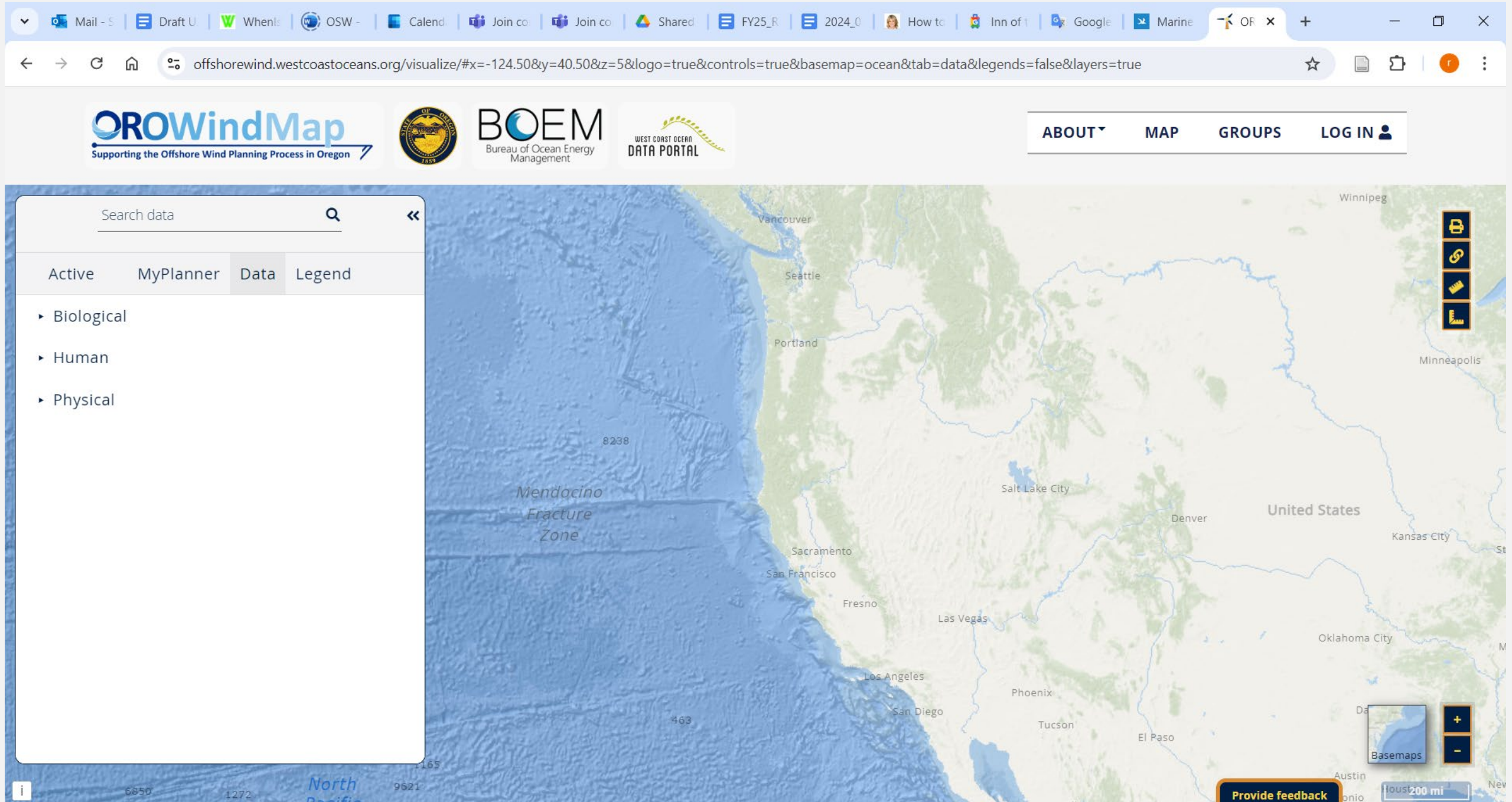



**Figure E-229. Predicted density for Pink-footed Shearwater (*Ardenna creatopus*) in the summer season**


offshorewind.westcoastoceans.org/visualize/#x=-124.50&y=40.50&z=5&logo=true&controls=true&basemap=ocean&tab=data&legends=false&layers=true
OROWindMap
Supporting the Offshore Wind Planning Process in Oregon
BOEM
Bureau of Ocean Energy Management
WEST COAST OCEAN DATA PORTAL
ABOUT
MAP
GROUPS
LOG IN
Search data
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Physical
Mendocino Fracture Zone
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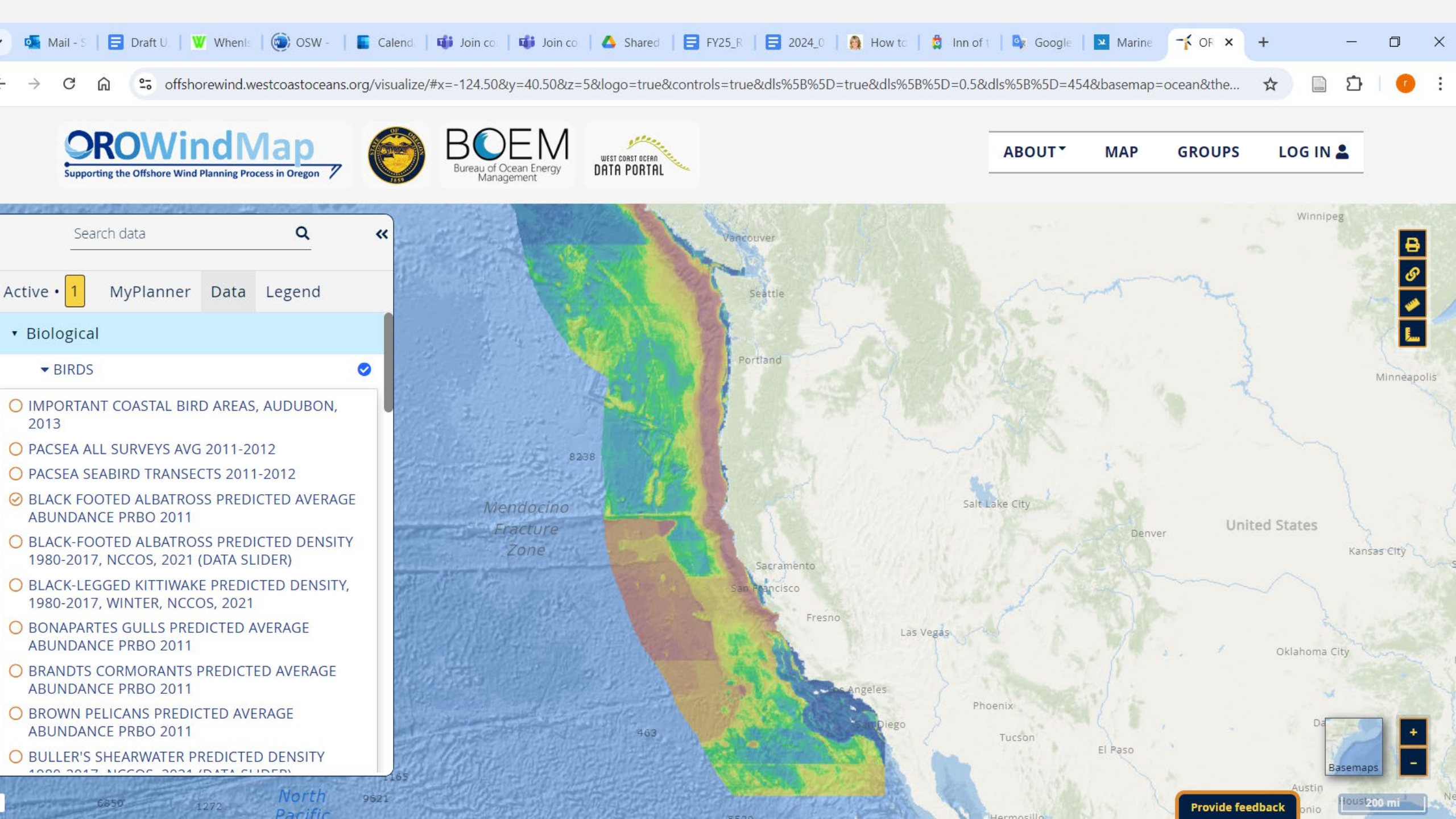
Vancouver
Seattle
Portland
Winnipeg
Minneapolis
Salt Lake City
Denver
United States
Kansas City
Sacramento
San Francisco
Fresno
Las Vegas
Oklahoma City
Los Angeles
Phoenix
San Diego
Tucson
El Paso
Austin
Basemaps
Provide feedback
200 mi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Biological
BIRDS
IMPORTANT COASTAL BIRD AREAS, AUDUBON, 2013
PACSEA ALL SURVEYS AVG 2011-2012
PACSEA SEABIRD TRANSECTS 2011-2012
BLACK FOOTED ALBATROSS PREDICTED AVERAGE ABUNDANCE PRBO 2011
BLACK-FOOTED ALBATROSS PREDICTED DENSITY 1980-2017, NCCOS, 2021 (DATA SLIDER)
BLACK-LEGGED KITTIWAKE PREDICTED DENSITY, 1980-2017, WINTER, NCCOS, 2021
BONAPARTES GULLS PREDICTED AVERAGE ABUNDANCE PRBO 2011
BRANDTS CORMORANTS PREDICTED AVERAGE ABUNDANCE PRBO 2011
BROWN PELICANS PREDICTED AVERAGE ABUNDANCE PRBO 2011
BULLER'S SHEARWATER PREDICTED DENSITY
Vancouver
Seattle
Portland
Winnipeg
Minneapolis
Salt Lake City
Denver
United States
Kansas City
Sacramento
San Francisco
Fresno
Las Vegas
Oklahoma City
Phoenix
Tucson
El Paso
Austin
Houston
Mendocino Fracture Zone
North Pacific
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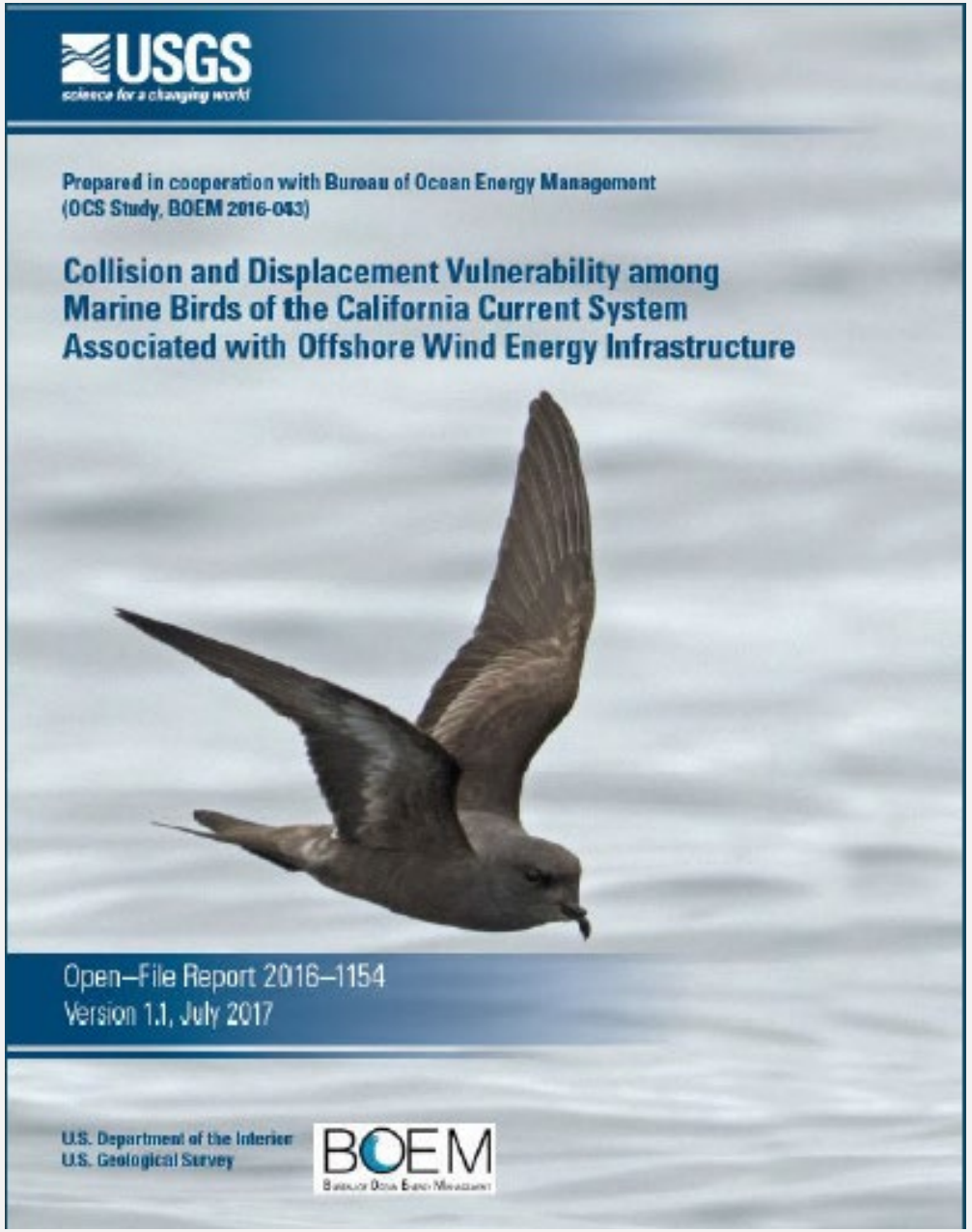
Basemaps
200 mi
Provide feedback




phalaropes tropicbirds

**Results 2024 update of this study showed:**

- phalaropes and tropicbirds are vulnerable to **collision**
- pelicans and sea ducks are vulnerable to **displacement**

Kelsey et al, 2024

# What we don’t know…

**Actual Impacts to albatross**

Predictions of impacts to seabirds based on work in the Atlantic -- no albatross in north Atlantic.

## Other initiatives to learn more:

**3D Seabird:** Understanding collision vulnerability in 3D.

**TT3D** – ThermalTracker-3D Offshore testing project

**SEABIRD** – System for Environmental Assessment of Bird/Bat Interactions with Real-time Detection

*… work by Stephanie Schnieder, HT Harvey and Associates and partners*

# Understanding Seabird Risk – flight height

3D Seabird:  Understanding collision vulnerability in 3D.

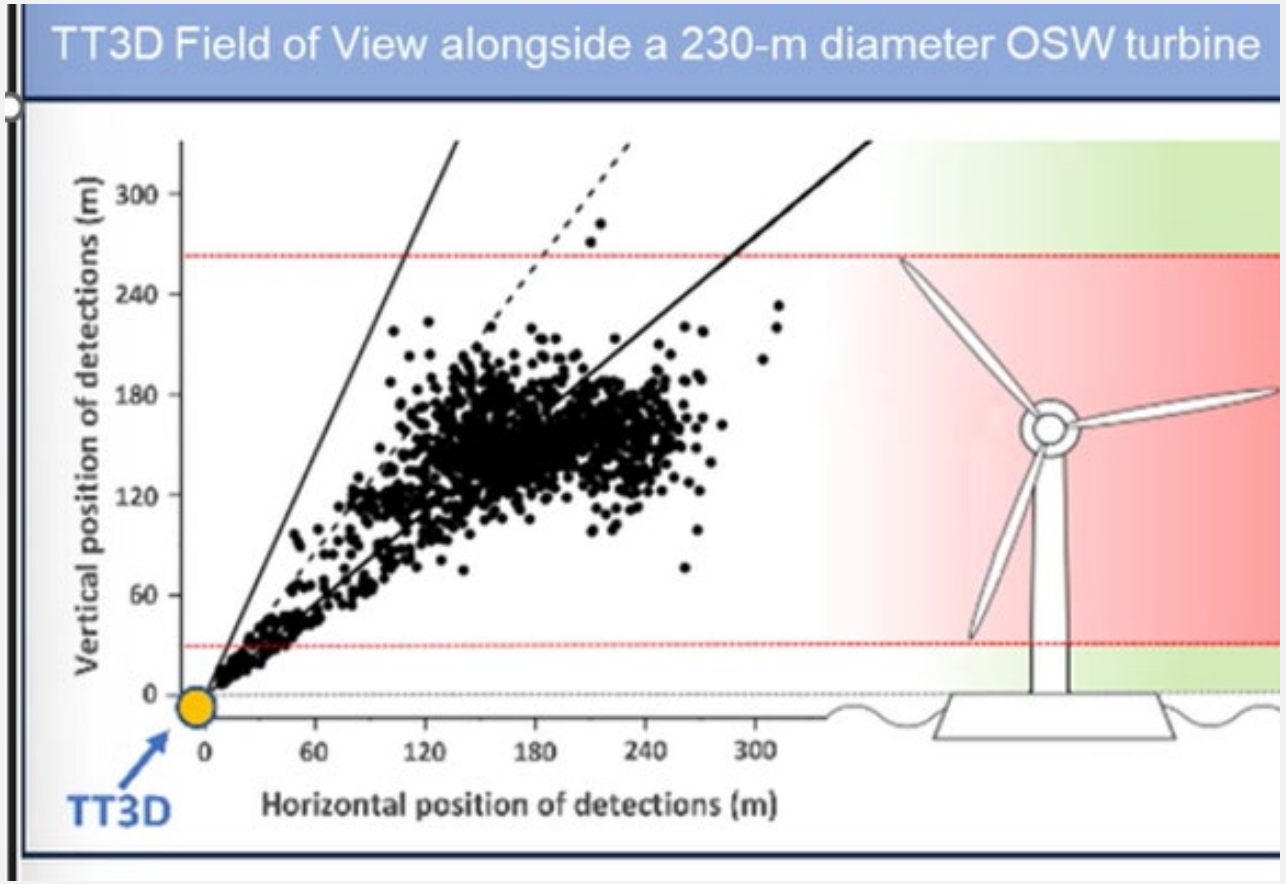
Developing a 3-D seabird distribution model for California

- Sooty shearwater and gulls make up most of community above 10 m
- Large diving shearwaters flying in the rotorswept zone.


*Stephanie Schnieder, HT Harvey and Associates*

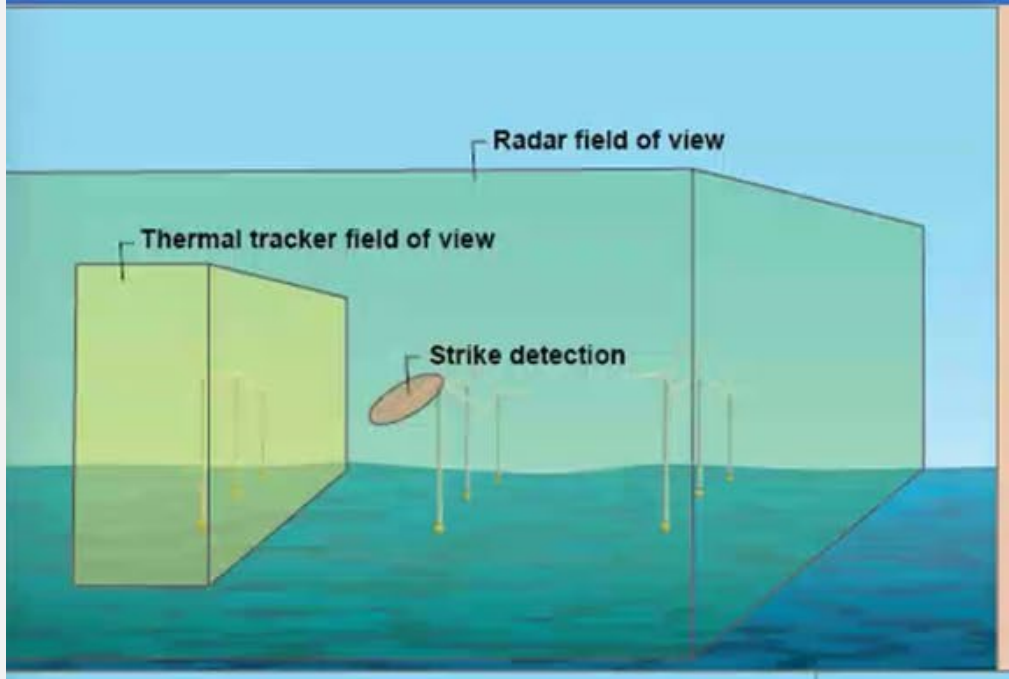
**TT3D** – ThermalTracker-3D Offshore testing project

- Volumentric passage rates
- Results – most birds passing 0-10 meters
- Birds passing throughout the day, and at night




*Stephanie Schnieder, HT Harvey and Associates*

# "SEABIRD"




**Integrated, Real-Time, Multi-Scale System for Monitoring Seabird Interactions with Floating Offshore Wind Technologies**

- Develop and test technology capable of gathering data needed to generate collision risk models
- Post-construction monitoring

*Stephanie Schnieder, HT Harvey and Associates*

# Who are we most concerned about in the CCS?

**Collision**

Brant


Phalaropes


Large diving shearwaters (sooty)


Gulls

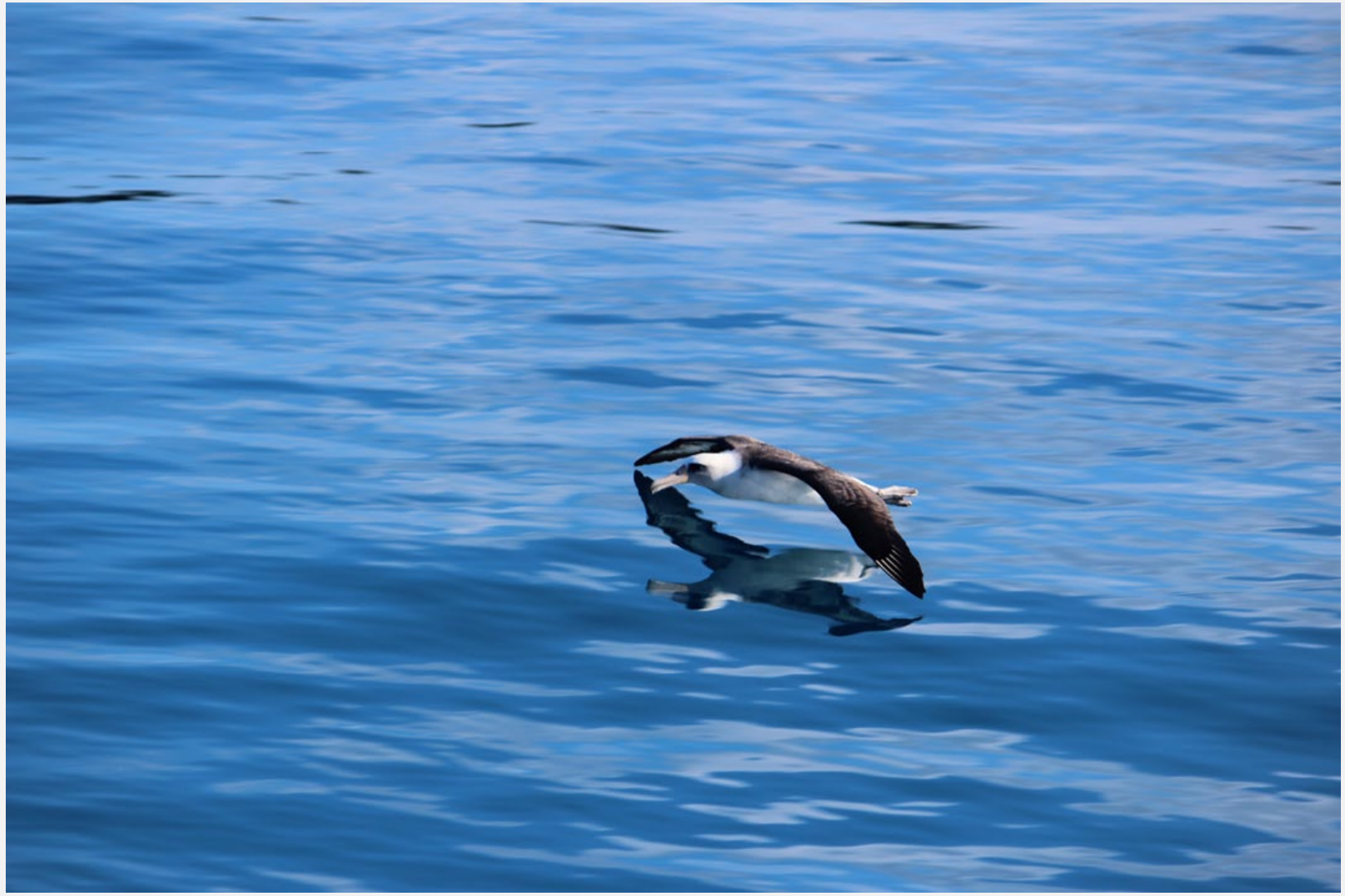

**Displacement**

Sea ducks

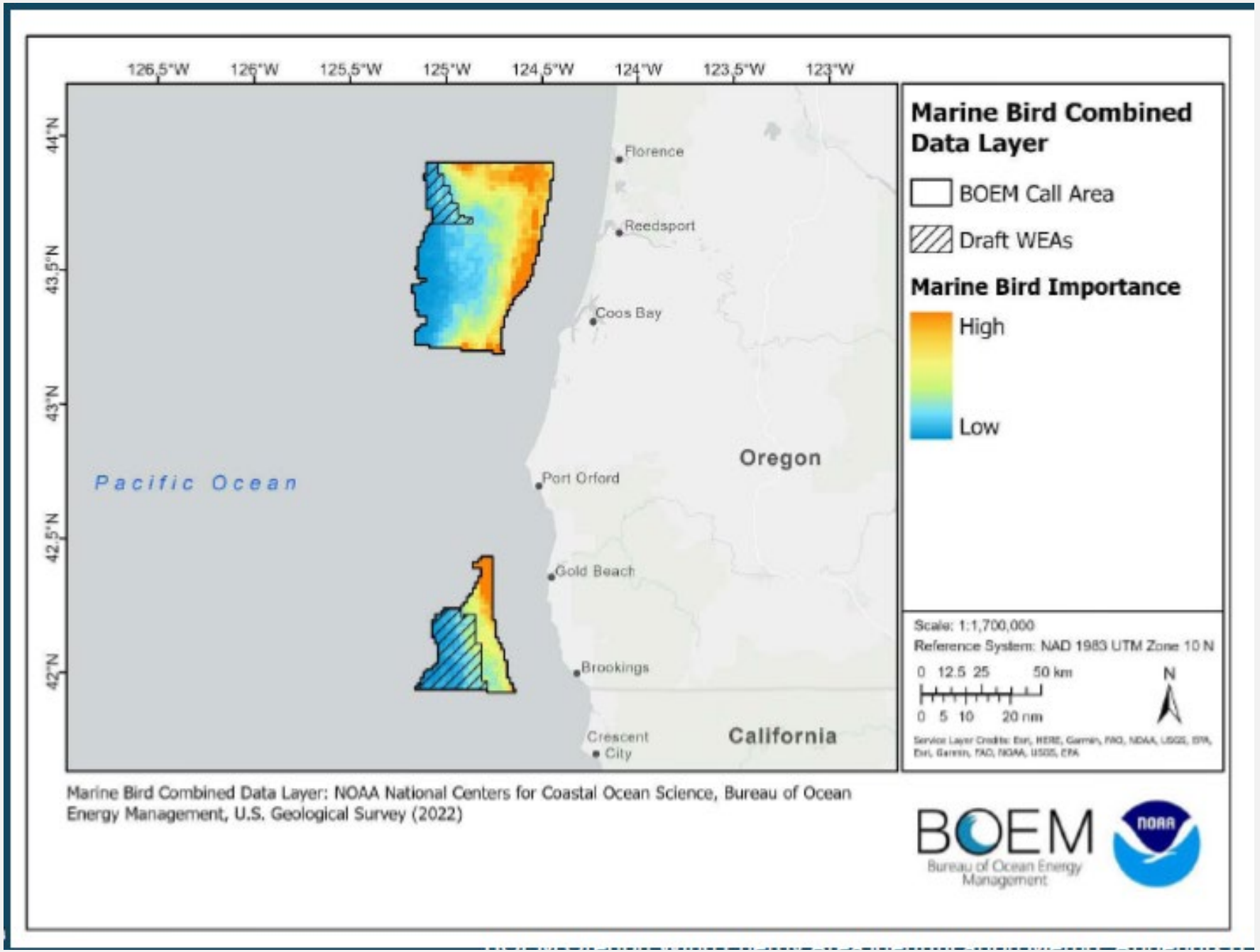

Pelicans

**What can we do to minimize impacts?**

- Siting
- Deterrence methods – none available
- Monitoring to understand impacts
- Compensation



Siting: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Coos Bay
Port Orford
Gold Beach
Brookings
Crescent City
Pacific Ocean
Oregon
California
Marine Bird Combined Data Layer
BOEM Call Area
Draft WEAs
Marine Bird Importance
High
Low
Scale: 1:1,700,000
Reference System: NAD 1983 UTM Zone 10 N
0 12.5 25 50 km
0 5 10 20 nm
N
Marine Bird Combined Data Layer: NOAA National Centers for Coastal Ocean Science, Bureau of Ocean Energy Management, U.S. Geological Survey (2022)
BOEM
Bureau of Ocean Energy Management
NOAA