



**Recreational  
Abalone Fishery  
Management**

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**Why are we here?**

Discuss the abalone fishery and conservation:

- Culturally important, unique fishery
- Iconic marine invertebrate!

Current status:

- Recently imperiled
- 3-year suspensions (2018, 2021)
- Long term management needed



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## The three species of abalone in Oregon



### Pinto abalone

Rare in OR, only a few specimens observed



### Flat abalone

Stronghold occurs in Sth Oregon and Nth California



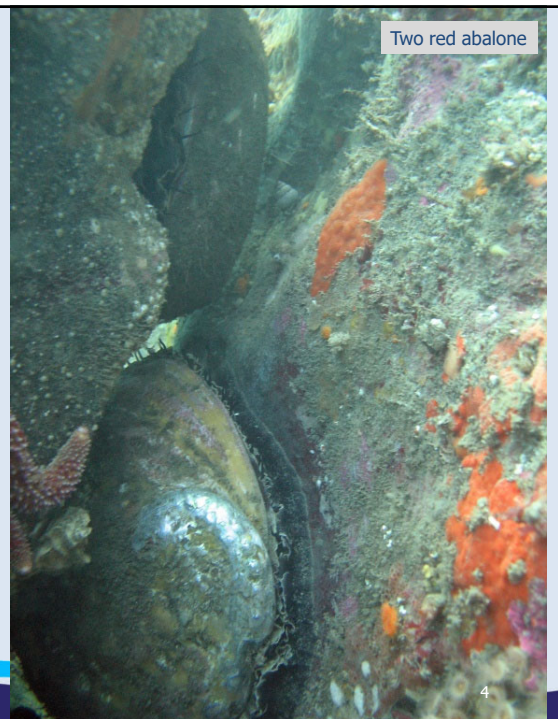
### Red abalone

Range extends from Baja, Mexico to Coos Bay, Oregon. Largest abalone spp. in the world

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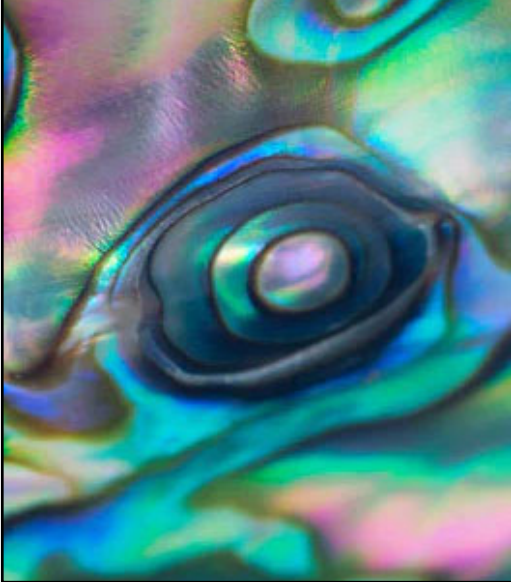
## Abalone Biology

- Live on rocky reefs
  - Sedentary
- Eat drift kelp
  - Only live in shallow kelp beds
- Broadcast spawners
  - Tight aggregations critical
  - Short larval period (local)
  - Reproduction rarely successful
- Long lived
  - ~15 years to minimum size
  - Maximum age 35-54 years



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## Abalone Fisheries



### Flat abalone

Commercial Fisheries occurred between 2001-2008



### Red abalone

Commercial Fishery occurred between 1960-1962  
Recreational Fishery occurred between 1953-2018

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## Abalone Fishery in Oregon

**300** Permits issued annually in OR

**~189** Abalone harvested annually

**95%** Harvested around Brookings, OR

**50%** Harvested from kelp beds using scuba

### For Comparison

The CA fishery is >1000 times larger



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## Red abalone status

- Oregon stock declining
  - Populations continue to decline because of poor environment. No fishing effect.
- Regional stock declining
  - Similar conditions
  - CA closed, focused on recovery



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## Red abalone in decline

Red abalone/m<sup>2</sup> by port and year

Year	Port	
	Brookings	Port Orford
2015	0.047	0.030
2019		0.017
2022	0.014	

2015  
**54** Red abalone  
**53** Purple sea urchins

2022  
**11** Red abalone  
**11000** Purple sea urchins



New

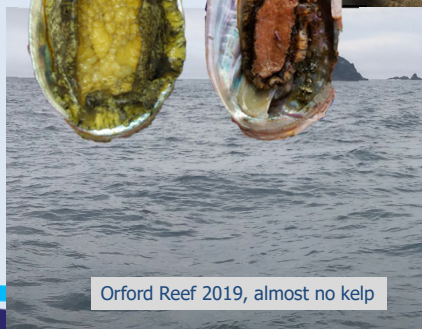
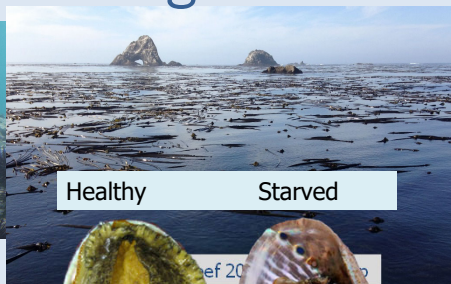
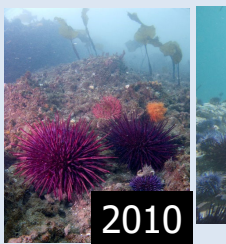
Surveyors observed migration, starvation, & empty shells

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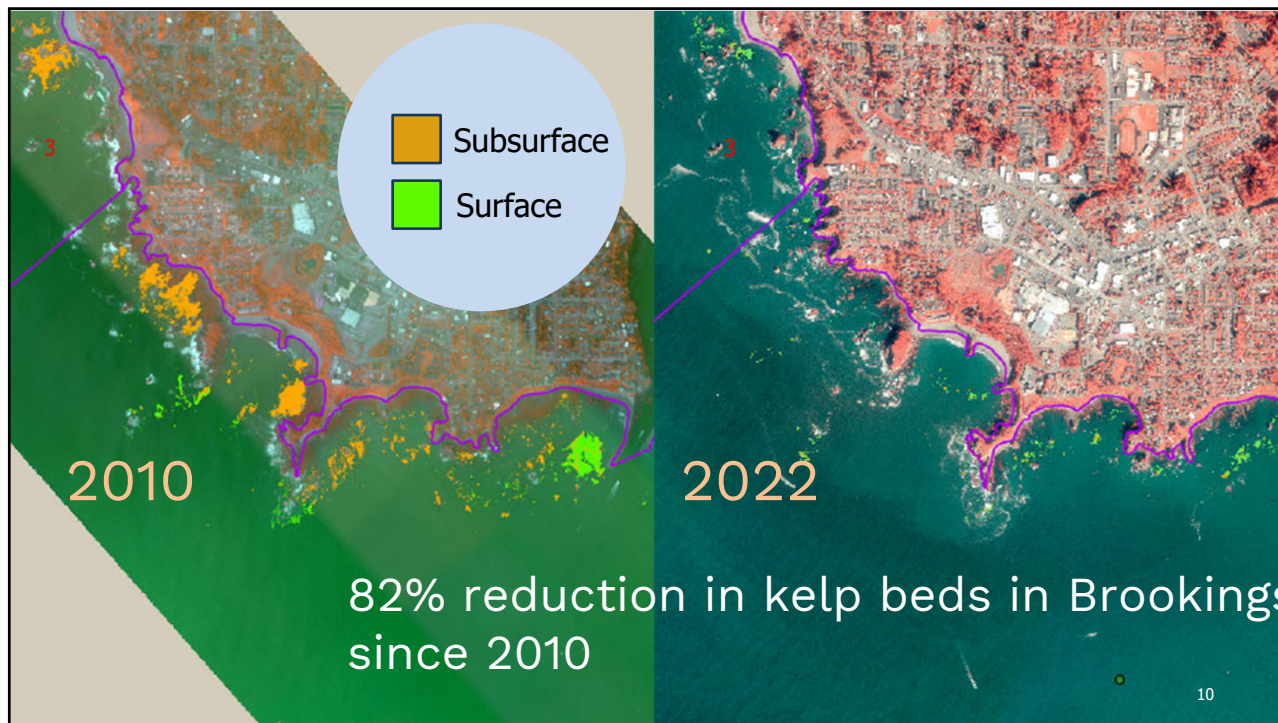
# Environmental change

Nearshore waters experiencing change

- Warm water events reduce kelp abundance (67%)
- Purple sea urchins have increased
- Sea stars have not recovered
- With no food, abalones have starved.



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# Informational: Conservation and Fishery Management Plan (CFMP)



Resource analysis (biology/genetics, research, threats (climate change), etc.)

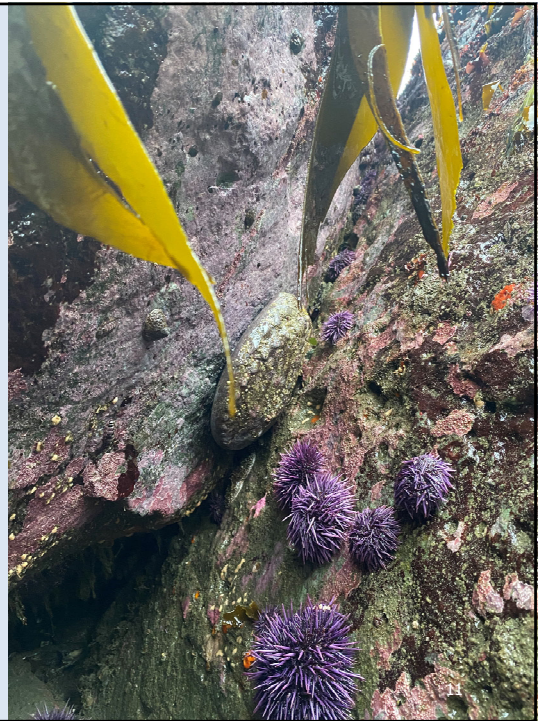
Example: Genetic Assessment



Conservation and management

Example: Limit Reference Points

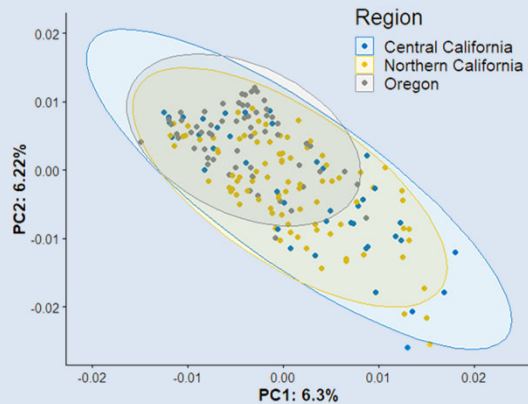
Reviewed each 10 years minimum



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## Red abalone genetics



Oregon's red abalones are part of a regional population (Baja to OR)

Oregon populations ARE NOT self sustaining, rely on dispersal

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# CFMP Fishery Triggers



Limit Reference Points (LRPs) define a trigger for management.

1. Regional fishery (CA) for red abalone must be active.
2. Red abalone densities at ODFW index sites must reach a minimum value of 0.1 red abalone per m<sup>2</sup>.



# Public outreach

## Public meetings

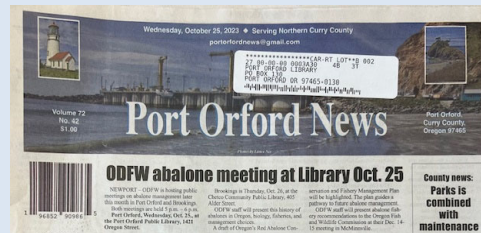
October '23: Port Orford & Brookings

## New manuscript

"Abalone in Oregon: Trends in Populations and Fisheries" Marine Fisheries Review, in press

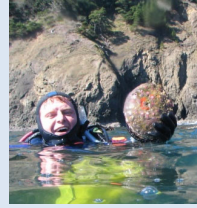
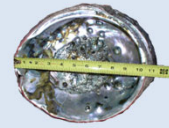
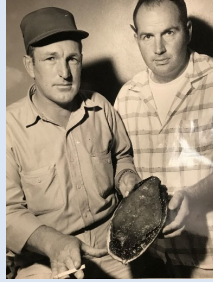
## Extensive outreach/collaborations

OFWC (2018, 2019, and 2021); US West Coast Abalone Workshop (2020); Elakha Alliance webinar (2020); Cape Perpetua Collaborative (2023); Oregon Chapter of the American Fisheries Society (2023); Oregon Sea Otter Science Symposium (2022); University of Oregon / Oregon Institute of Marine Biology (K. Smith M.Sc. thesis, 2023)





# Questions



## Draft Motion

*Staff recommend  
the commission  
suspend the  
fishery without a  
sunset*

I move to amend OAR 635-039-0090 as proposed by staff in Attachment 3