

# RESTORATION OF OLYMPIA OYSTERS IN SEQUIM AND DISCOVERY BAYS

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# THANK YOU:

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- Brady Blake and Chris Eardley WDFW
- Ralph Riccio Moonlight Oyster Company
- Gordon King, Taylor Shellfish
- Ryan Crim and Betsy Peabody Puget Sound Restoration Fund





Strait of Juan de Fuca

**Sequim Bay**

**Discovery Bay**

Olympic Mountains

Pacific Ocean



Forks

Port Angeles

Sequim

Blyn

Port Townsend

Bremerton

Kitsap Peninsula

Hood Canal

# Both bays:

- Home to ESA listed summer chum salmon
- Streams channelized
- Estuary impacted by railroad grade
- Impacted by sedimentation
- Home to historic Oly populations



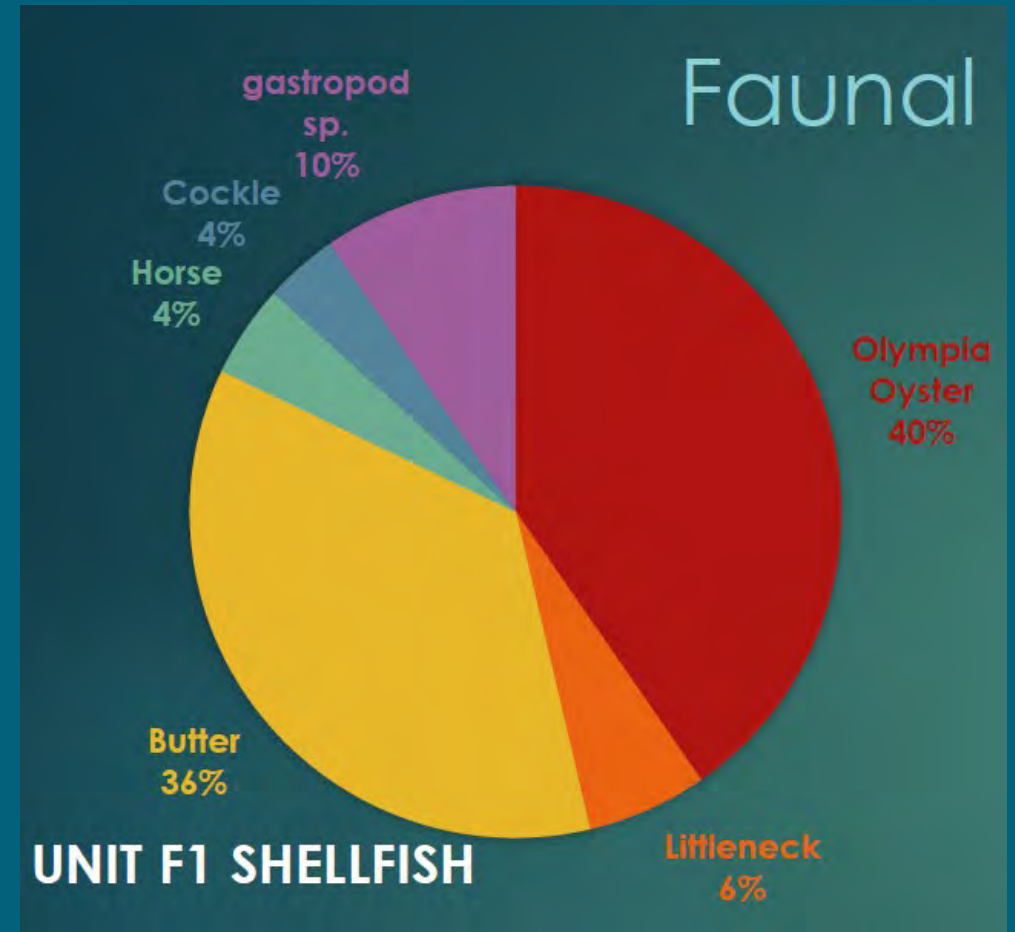
Jimmycomelately Estuary 1-98



# Olympia shell found to date to 1100 years ago next to Sequim Bay



Unit F1, Cook Pit Feature 2, 5-25 cmbs



# Jimmycomelately restoration 2000-2005



# Goal in 2012: establish oyster bed habitat

## Sequim Bay

- Very sparse scattered Olympias
- Likely 100's or low 1000's
- Strategy: use Puget Sound Restoration Fund's hatchery to boost numbers.

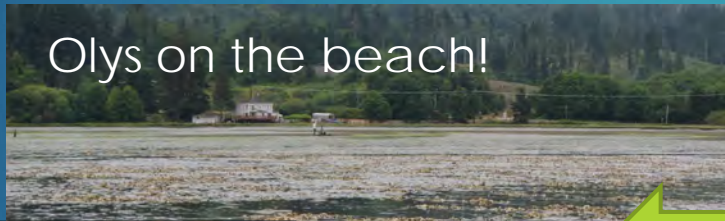


## Discovery Bay

- Vigorous yet localized population
- 1000's or low 10,000's
- Strategy: Provide settlement substrate (blank Pacific shell)

Salmon restoration set the stage for Olympia oyster restoration!!!

# Restoration process Sequim Bay





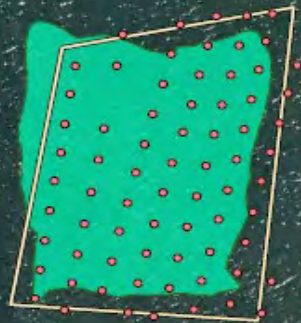
# OLYMPIA OYSTER RESTORATION PLOT SURVEYS

AREA WITH OYSTERS: 6,785 M<sup>2</sup>  
SEQUIM BAY, 2022

- SURVEY POINT
- ▭ OYSTER PLOT
- AREA WITH OYSTERS



Map created July 2022 | Imagery: WaTech, 2021



**A**

**1.5 ACRE DNR PLOT**

## Site A

- 2012- 80 brood stock were collected and 6,200 offspring out planted
- 2013- 500,000 seed was out planted
- 2015- 100 bags of blank shell spread
- 2019- 100 cubic yards of blank shell spread



**B**

**0.3 ACRE DNR PLOT**

## Site B

- 2018 Site was established- 250,000 oysters (seeded cultch) spread



**C**

**0.3 ACRE  
SUBSISTENCE PLOT**

## Site C

- 2019- 50 bags of seeded cultch spread



FEET 0 100 200 400 600 800 1,000

# Assessing success: Systematic random sampling



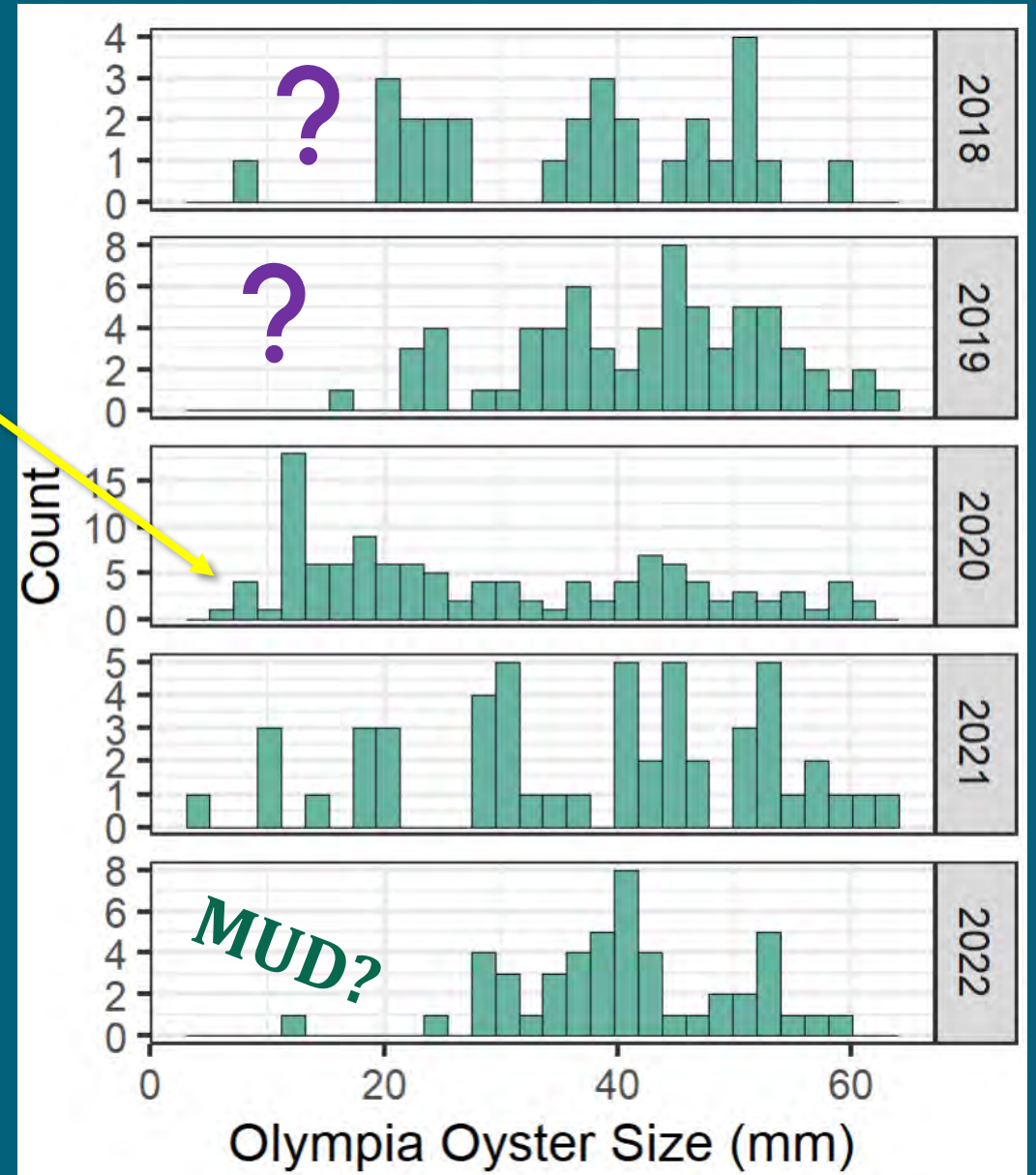
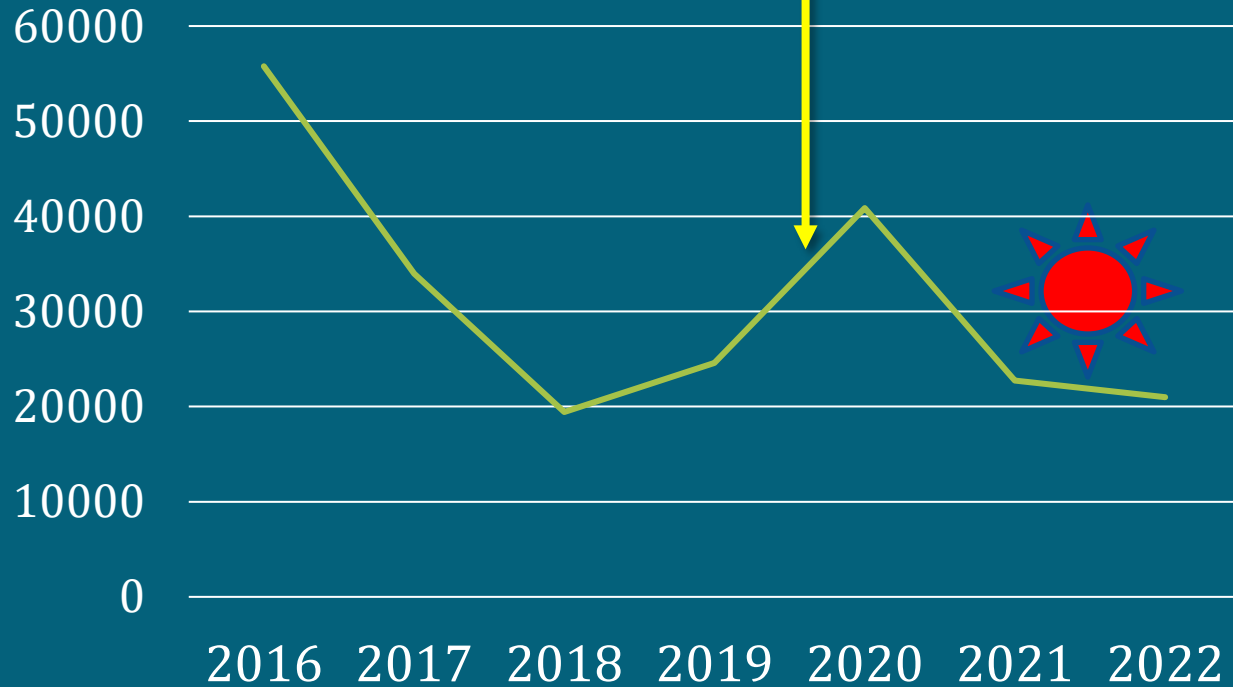
Number and size of Olys per meter squared X size of plot

Calculate population estimate

# Site A- Olympia oyster population change



100 yds shell spread 2019



# 2024: 200 yards of shell spread Sequim Bay by Clallam MRC

- Shell transported to south end of bay with Jamestown Seafood barge
- Dumped over the side
- Spread at low tide





# Discovery Bay Overview

Existing "lagoon" population-  
10 yards of shell added since 2019

Maynard

"Powerlines" restoration area:  
16.5 yards added since 2015

New DNR parcel:  
30 yards shell 2023

Fairmont

Discovery Bay

Fairmount Rd

US Highway 101





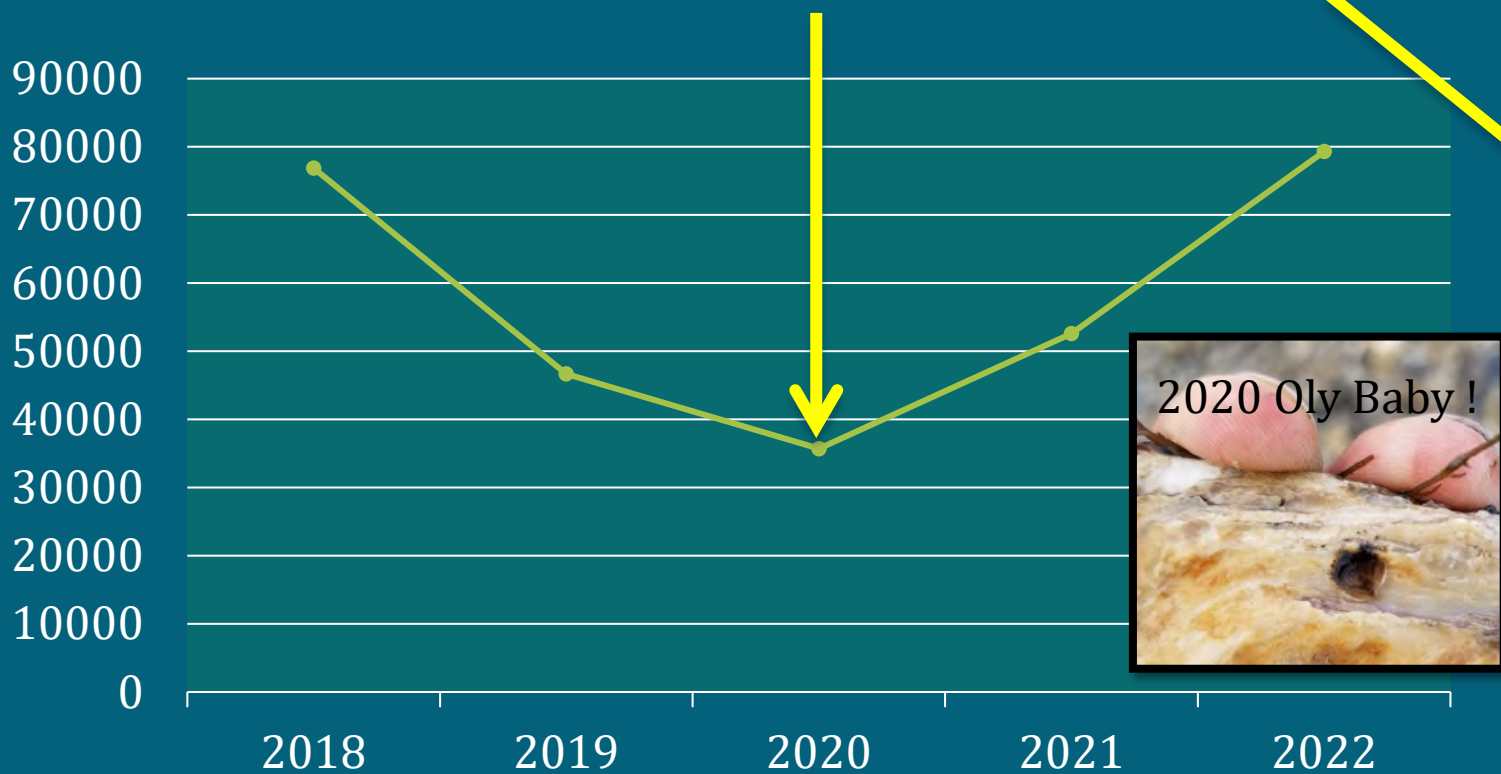
April 2019



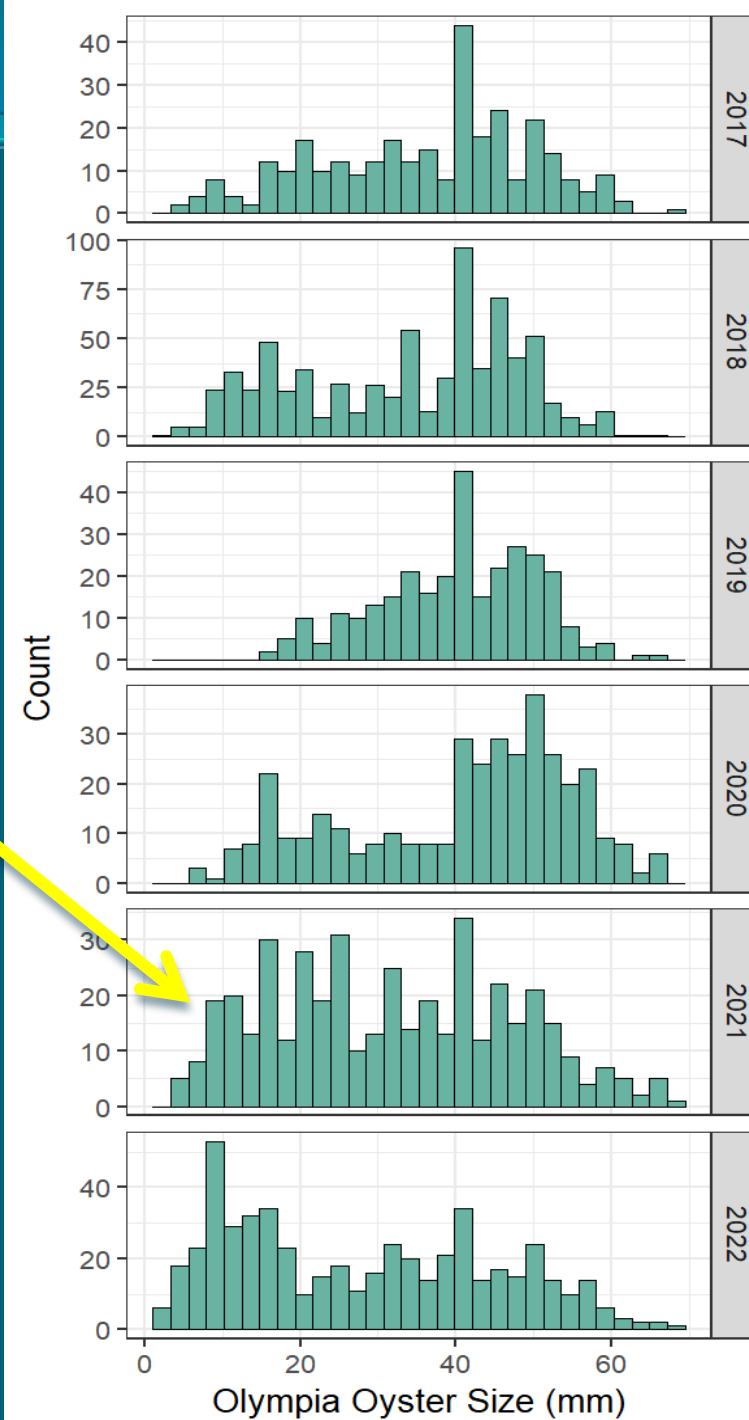
September 2019

# Discovery Bay Powerlines survey results

- Shell Added 2020 and 2021



Also: 2023 survey of both powerlines parcels= ~125K in bay!







2023 Shell Spread  
Discovery Bay 30 yards or  
about 300,000 shells!!!



BABY OLY's 2024!!!!

# Take home messages:

- ▶ >100K Olys in both bays!
- ▶ Broodstock hatchery or shell substrate can work
- ▶ Get your monitoring protocols set at beginning of project!
- ▶ Listen to the landscape
- ▶ Both MRCs are continuing these projects!
  - ▶ Sequim spat on shell
  - ▶ Discovery Bay more shell this winter

