

Oregon Coordinating Council on Ocean Acidification and Hypoxia

Tribal Government Seat and Fishing Interest Seat Appointments

Presentation to the Oregon Fish and Wildlife Commission

January 14th, 2022

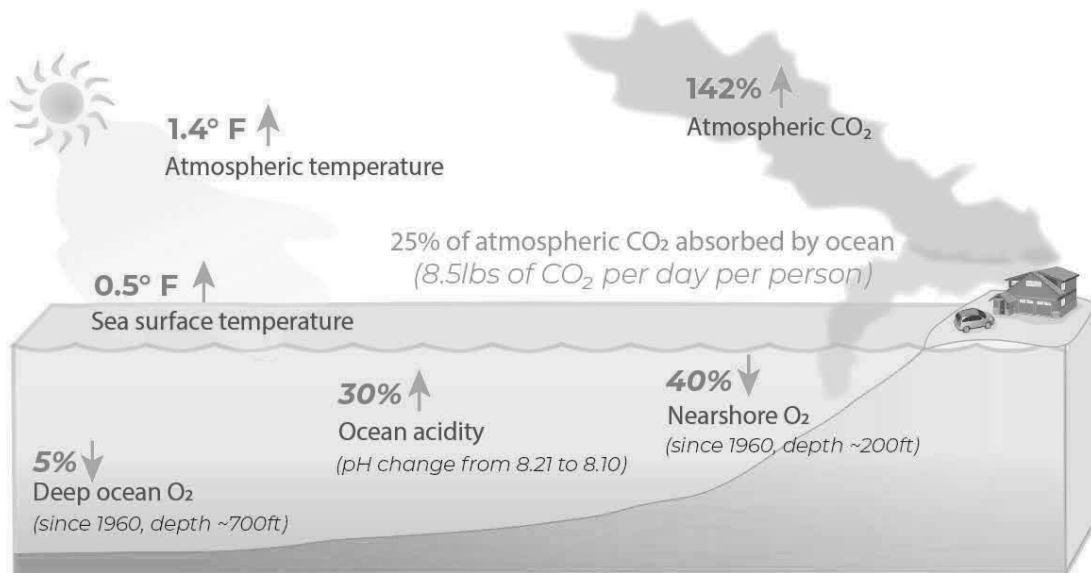


Dr. Charlotte R. Whitefield
Oregon Department of Fish and Wildlife
Staff to the Oregon OAH Council



1

Underlying Problem – Global Ocean Change



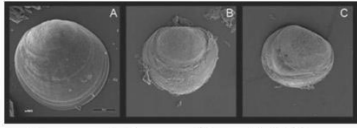
Referenced Data:

Pierce, S. D., J. A. Barth, R. K. Shearman and A. Y. Erofeev, 2012. Declining oxygen in the Northeast Pacific. *J. Phys. Oceanogr.*, 42, 495-501
Schmidtko, S., L. Stramma & M. Visbeck, 2017. Decline in global oceanic oxygen content during the past five decades. *Nature*, 542, 335-339
<https://earthobservatory.nasa.gov/world-of-change/DecadalTemp>
<https://www.epa.gov/climate-indicators/climate-change-indicators-sea-surface-temperature>

2

Ecosystem and Economic Effects

Starting in 2007

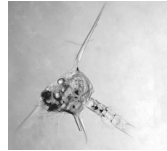


Larval Oyster Research

Common shell exposed to a pH of 7.5

- Day 1: Larvae are healthy (A)
- Day 2: Shells are dissolving (B)
- Day 3: Larvae are dead or dying (C)

2020



Larval Crab Research

abc NEWS VIDEO LIVE SHOWS 2020 ELECTIONS

Ocean Acidification Hits Northwest Oyster Farms

Scientists: Carbon dioxide in oceans could mean the end of shellfish.

By DARCY BONFILS via OMA
April 20, 2010 10:25 AM • 4 min read

April 22, 2010 — Mark Wiegardt and Sue Cudd have each dedicated about 30 years of their lives to bringing oysters to our tables. Now the two have found themselves in the forefront of one of the newest, most pressing environmental issues of our time: ocean acidification.

It all began with the oyster larvae at their Whiskey Creek Shellfish Hatchery in Tillamook, Ore.

"It first started in 2007. We had a situation here when all of a sudden, our larvae started dying," said Wiegardt.

Environment

Ocean acidification is impacting Dungeness crabs, Oregon's most-valuable fishery, study shows

Updated Jan 24, 2020 | Posted Jan 24, 2020

The Pacific Ocean is so acidic that it's dissolving Dungeness crabs' shells

By Seattle Times Staff

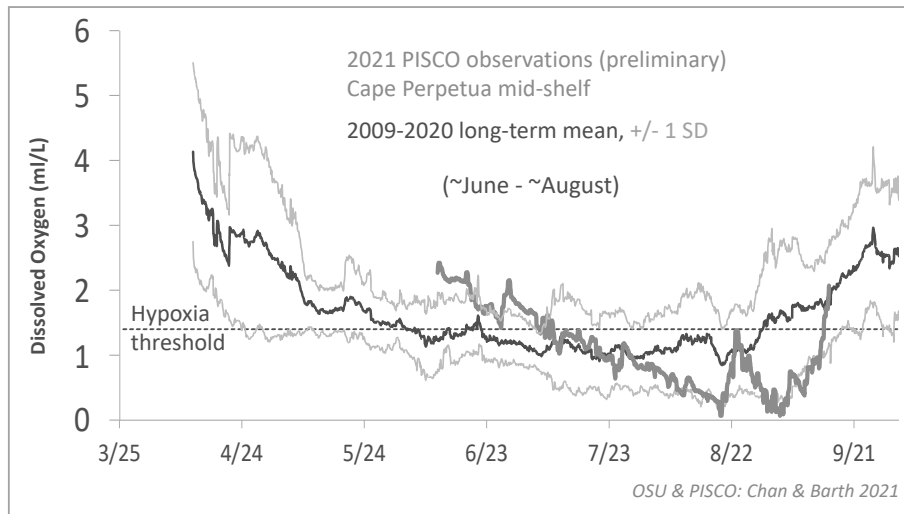
The Pacific Ocean is getting so acidic it's softening the shells of the most valuable commercial crab in the region, scientists are warning, and the damage could be even worse, a new study finds.

Crabs — The Pacific Ocean is becoming more acidic, and the study shows that in its coastal waters are some of the first impacts to be felt by fish.

3

Ecosystem and Economic Effects

Seasonal depression of O₂ deoxygenation (Hypoxia 1.4 mL/L)



2007

2021

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Low-oxygen zone found again off Oregon Coast

Originally published July 31, 2007 at 12:00 am | Updated July 31, 2007 at 2:52 am

The Seattle Times Local News Environment | Local News | Northwest | Science | Weather

Low oxygen levels along Pacific Northwest coast a 'silent' climate change crisis

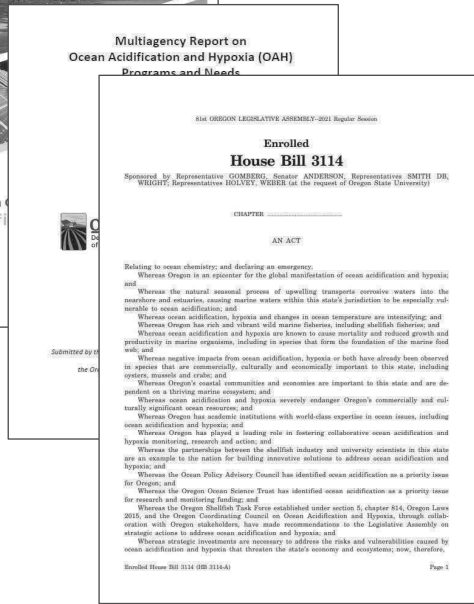
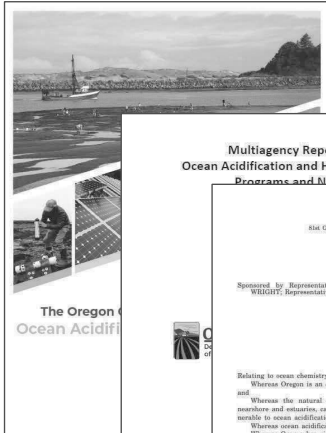
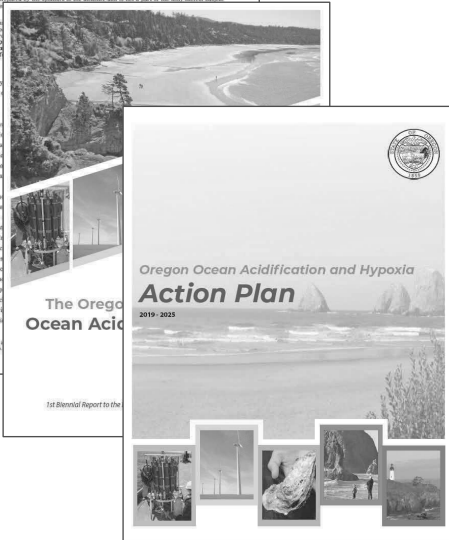
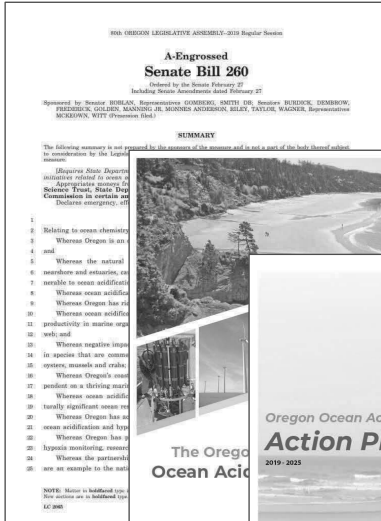
Sep. 28, 2021 at 6:00 am



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Oregon Coordinating Council on OAH Works for Change

2017



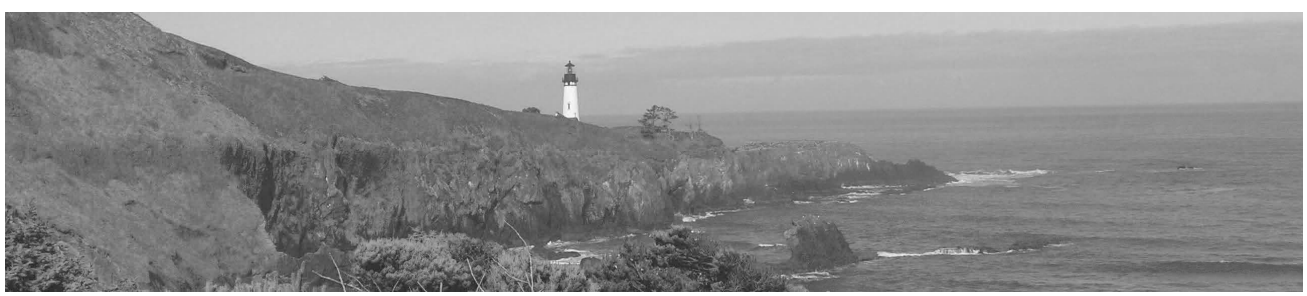
2021

ODFW Climate and Ocean Change Policy

OAH Council work directly aligns with 2 of the 4 overarching policy goals

Provide leadership toward a coordinated statewide and regional response that minimizes the impacts of changing climate and ocean conditions on Oregon's natural resources and the communities, culture and economies reliant on them, and allows for sustainable use of natural resources in the future

Increase public awareness about the current and future impacts of climate and ocean change on fish, wildlife, and their habitats and the value of resilient habitats for fish and wildlife, clean air and water, flood attenuation, recreational opportunities, and the natural resources economy.



OAH Council Participation

Legislatively created Council of 13 Seat Council of Academics, Stakeholders, and Tribal and State Governments

1. The Governor Office designee
2. Marine Studies Initiative (MSI) at Oregon State University (OSU)
3. Oregon Department of Fish and Wildlife
4. Oregon Department of Agriculture
5. Oregon Department of Environmental Quality
6. The Department of Land Conservation and Development
7. The Oregon Ocean Science Trust
8. Oregon Sea Grant
9. A Conservation Seat - appointed by the Ocean Policy Advisory Council
10. Fishing Interest Seat - appointed by the State Fish and Wildlife Commission
11. Shellfish Mariculture Industry Seat - appointed by the State Board of Agriculture
12. Academic Research Seat - appointed by the scientific and technical advisory committee to the Ocean Policy Advisory Council
13. Federally Recognized Oregon Indian Tribes Seat - appointed by the State Fish and Wildlife Commission in consultation with the Commission on Indian Services

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OAH Council Applications

Fishing Representative:

(5-week application period)

- Mr. Robert (Bob) Kemp – experienced commercial tuna and crab fishermen, engaged with OAH Council for the past 2 years, and active member of the Newport Fishermen's Crab Association.
- Mr. David Kuehn – avid sport fisherman and president of the Oregon South Coast Fishermen association, as well as participant of the ODFW The Salmon and Trout Enhancement Program (STEP) and a retired biology teacher.

Tribal Representative:

(coordinated with Legislative Commission on Indian Services)

- Mr. John Schaefer - long-time staff of the Confederated Tribes of the Coos Lower Umpqua Siuslaw, served on the OAH Council for past 4 years. Also engaged in OAH and shellfish resources monitoring.

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OAH Council Applications – *Staff Recommendations*

Fishing Representative:

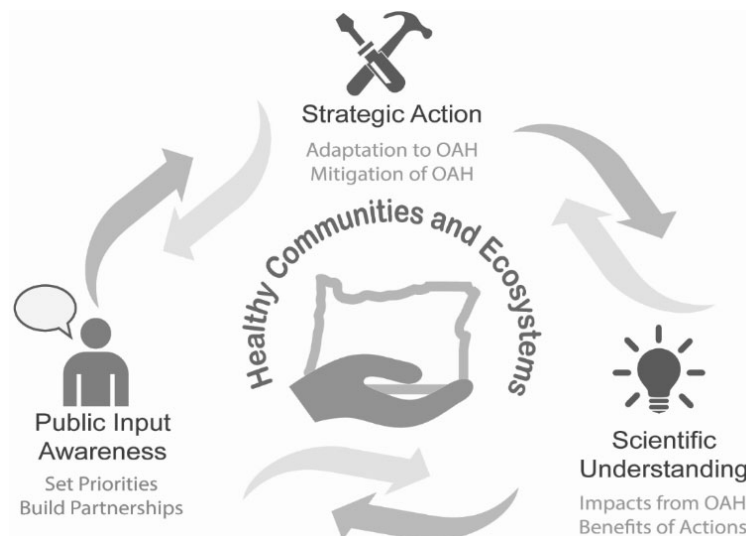
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Questions?



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