



Oregon Coordinating
Council on Ocean
Acidification & Hypoxia

The State of Oregon

Ocean Acidification and Hypoxia Actions

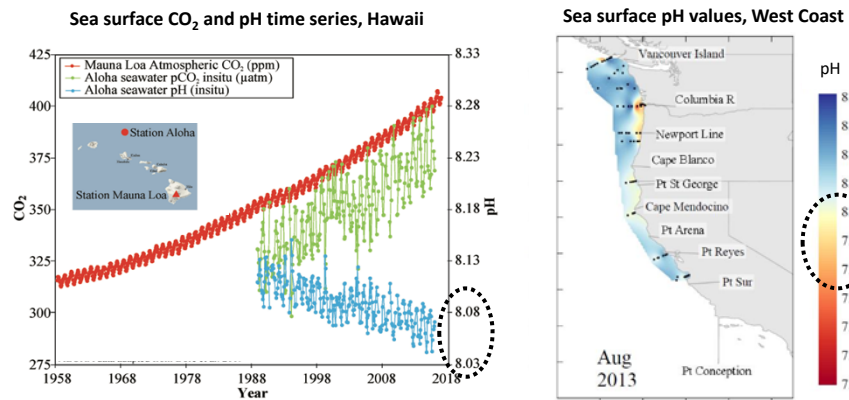


Dr. Caren Braby
Oregon Department of Fish and Wildlife



Ocean Acidification

Increased CO_2 and CO_2/pH = Ocean Acidification



NOAA PMEL Carbon Program:
Mauna Loa Data adapted from Dore et al. 2009

Feely et al. (2016) Estuarine, Coastal and Shelf Science

Ocean Hypoxia

2007

The Seattle Times Local News

LOCAL | BIZ/TECH | SPORTS | ENTERTAINMENT | LIFE | TRAVEL | HOMES | OPINION | JOBS | AUTOS | EXPLORE | All Sections

Traffic Lab Project Homeless Crime Local Politics Education Eastside Watchdog News Obituaries FYI Gay Westbeat Beacon

Local News

Low-oxygen zone found again off Oregon Coast

Originally published July 29, 2007 at 10:00 am | Updated July 29, 2007 at 2:02 am

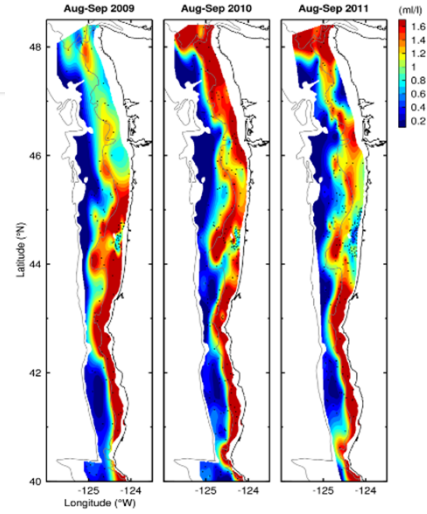


HOME ABOUT US TV RADIO NEWS MUSIC & CULTURE EVENTS SUPPORT

Oregon Now Has A Hypoxia Season, Just Like A Wildfire Season

By Kristian Eshel-Cross | September 18, 2018

Hypoxia = 1.4 mL/L



Keller et al. (2017) Marine Ecology Progress Series

West Coast shellfish aquaculture: \$270 Million annually



Pteropods & Food Web



Wild Dungeness Crab larvae



Wild Dungeness Crab & Biotoxins



Wild Dungeness Crab & Whales





Oregon Action on Ocean Change

Dr. Caren Braby
Oregon Department of Fish and Wildlife

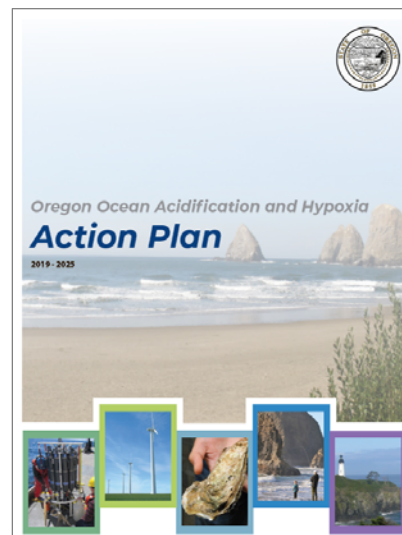
*Oregon's representative to the
Pacific Coast Collaborative
Ocean Acidification Working Group*

Oregon Policy

- Legislative Policy/Budgets
 - Ocean Science Trust
 - OAH Council
- Governor Mandate
 - Pacific Coast Collaborative (PCC)
 - OAH Action Plan
- Agency Policy (rules)
 - ODFW policy (soon)



<https://www.oregonocean.info/>



PCC Governors' Leadership: International Alliance to Combat Ocean Acidification

Members endorse a Global Call to Action

1. Advance scientific understanding
2. Reduce causes
3. Explore adaptation and mitigation
4. Expand public awareness
5. Build sustained international support



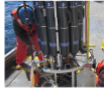
PCC Governors' Leadership: Monitoring Network

Inventory & Gaps

- How should we define “network” and priorities?
- Local gaps: we are already filling gaps, locally
- Regional gaps: what does filling gaps mean regionally?



Oregon: OAH Action Plan



THEME 1

Science, monitoring, and research



THEME 2

Mitigate CO2 & OAH



THEME 3

Promote resilience



THEME 4

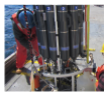
Raise awareness



THEME 5

Commit resources to action

Oregon: OAH Action Plan



THEME 1

Science, monitoring, and research



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Mitigate CO2 & OAH



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Promote resilience



THEME 4

Raise awareness

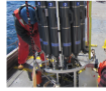


THEME 5

Commit resources to action



Oregon: OAH Action Plan



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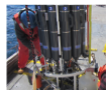


THEME 5

Commit resources to action



Oregon: OAH Action Plan



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Raise awareness



THEME 5

Commit resources

Build Sustained Support

Oregon OAH Action Plan - Appendix D

This appendix lists each of the 8 State agencies who's authorities have the most direct with OAH impacts, adaptation, and mitigation. Here, we outline issues that connect the authorities to the goals and priorities of the Oregon OAH Action Plan, that can serve as a point for agencies conducting evaluation of programs, regulations and compliance (as in this Oregon OAH Action Plan, Action 5, Step 1). Additional authorities and nexus points may be relevant.



Oregon Department of Fish and Wildlife

- emerging fisheries, resilient fishing communities, OAH research & monitoring

Nexus with 2018 Report Recommendations: 1.1, 1.2, 3.2, 5.1



Department of Land Conservation and Development

- ocean planning, coastal zone management, federal consistency, statewide planning goals, climate adaptation framework

Nexus with 2018 Report Recommendations: 3.2, 1.2, 1.1, 5.1



Department of Environmental Quality

- water quality planning, point and non-point source pollution, TMDLs

Nexus with 2018 Report Recommendations: 2.2, 5.1



Oregon Department of Agriculture

- food safety, aquaculture and agriculture permitting and practices

Nexus with 2018 Report Recommendations: 2.2, 3.2, 5.1



Department of State Lands

- submerged aquatic vegetation, removal/fill permitting, mitigation of development impacts, authorization of use of state-owned navigable waterways (includes estuaries and the territorial sea)

Nexus with 2018 Report Recommendations: 3.2, 5.1



Oregon Department of Forestry

- forested watersheds, carbon offset and mitigation, nonpoint source pollution on forested lands

Nexus with 2018 Report Recommendations: 2.2, 5.1



Oregon Health Authority

- impacted coastal communities

Nexus with 2018 Report Recommendations: 3.1, 4.2, 5.1



Oregon Department of Energy

- carbon mitigation framework, impacts on ecosystem and economics.

Nexus with 2018 Report Recommendations: 1.1, 2.2, 5.1

Oregon: What's next?

Oregon: What's next?

- Soon
 - ODFW Policy on Climate and Ocean Change
 - Oregon Climate Adaptation Framework
- In progress
 - Legislation & Agency Budgets
 - Agency planning
 - Education and Outreach

Oregon: SB1554 (2020)

80th OREGON LEGISLATIVE ASSEMBLY—2020 Regular Session

Senate Bill 1554

Sponsored by Senator ROBLAN, Representatives MITCHELL, SMITH DB; Senators BEYER, DEMBROW, FREDERICK, GELSER, GOLDEN, HEARD, MANNING JR, MONNES ANDERSON, TAYLOR, WAGNER, Representatives CLEM, GOMBERG, HELM, PILUSO, SOLLMAN, WITT (Pressession filed.)

SUMMARY

The following summary is not prepared by the sponsors of the measure and is not a part of the body thereof subject to consideration by the Legislative Assembly. It is an editor's brief statement of the essential features of the measure as introduced.

Appropriates moneys from General Fund to Oregon Ocean Science Fund, State Department of Fish and Wildlife, Higher Education Coordinating Commission and Oregon Department of Administrative Services for certain ocean program purposes.

Declares emergency, effective on passage.

A BILL FOR AN ACT

- 1
- 2 Relating to oceans; and declaring an emergency.
- 3 Whereas Oregon is an epicenter for the global manifestation of ocean acidification and hypoxia;
- 4 and
- 5 Whereas the natural seasonal process of upwelling transports corrosive waters into the
- 6 nearshore and estuaries, causing marine waters within this state's jurisdiction to be especially vul-
- 7 nerable to ocean acidification; and
- 8 Whereas ocean acidification, hypoxia and changes in ocean temperature are intensifying; and
- 9 Whereas Oregon has rich and vibrant wild marine fisheries, including shellfish fisheries; and
- 10 Whereas ocean acidification and hypoxia are known to cause mortality and reduced growth and
- 11 productivity in marine organisms, including in species that form the foundation of the marine food
- 12 web; and
- 13 Whereas negative impacts from ocean acidification, hypoxia or both have already been observed
- 14 in species that are commercially, culturally and economically important to this state, including
- 15 oysters, mussels and crabs; and
- 16 Whereas Oregon's coastal communities and economies are important to this state and are de-
- 17 pendent on a thriving marine ecosystem; and

Oregon OAH Council



OregonOcean.Info



Comments or Questions? Please contact
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