

Ocean Acidification and Hypoxia (OAH) Awareness

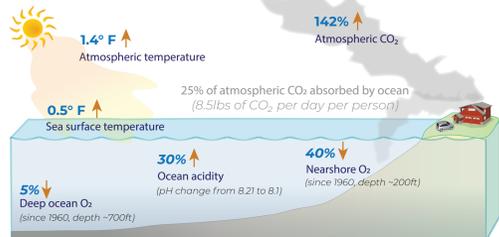
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What is OAH?

The ocean acts as a carbon sink meaning that as CO₂ emissions continue to rise, the ocean gets more saturated with carbon, increasing acidity. Oyster farmers along the Oregon Coast were some of the first non-scientist groups to really notice the impacts of ocean acidification as many of their oyster stock were dying.

Hypoxia is ocean water with severely low concentrations of oxygen in it (< 2 milligrams per liter of O₂). Mass die offs of fish, crabs and other organisms have been observed. On the Oregon coast hypoxia is often caused by upwelling. Climate change is making hypoxia more common on the Oregon coast.



Referenced Data: Pinter, 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. Schmittner, S., L. Stamma & M. Vicedo, 2017. Decline in global oceanic oxygen content during the past five decades. Nature, 542, 335-339. https://doi.org/10.1038/nature21444. https://www.epa.gov/climate-indicators/climate-change-indicators-sea-surface-temperature

What is being done about OAH?

The Ocean Acidification and Hypoxia (OAH) Council works to inform local interest groups about the dangers and causes of OAH. The council has been active for 3 years and created by the Oregon legislature by Senate Bill 1039.

OAH outreach is vital in ensuring the health of ecosystems along the Oregon coast. Strong communication between industry members and scientists helps ensure that farmers and fishermen are aware of what the impacts of OAH and what they can do to mitigate it. There is a need for more OAH outreach and resources that are presented in a more approachable form. There are even fewer OAH resources available in Spanish. More translated resources are needed to better target more communities within Oregon.



OAH Handouts

The OAH Council makes outreach materials that highlight the impacts of OAH in a concise and easy to access form. As a part of this internship, new handouts were made focused on Hypoxia.

Translating

The OAH Council currently only has resources available in English. As part of this internship, two of the key OAH Council handouts were translated into Spanish in order to reach a more widespread audience.

OAH Online Resources

The OAH council is dedicated to providing OAH resources to communities to learn more about OAH impacts and solutions. As part of this internship, a new OAH online education "library" was created.

General Science Hypoxia Handout

While the OAH Council has many handouts discussing OAH specifically, but few looking at Hypoxia alone. This pamphlet was based on a handout that was originally four pages.

Economic Impacts of Hypoxia Handout

This handout address how OAH economically affects the Dungeness crab industry. The crabbing industry is one of the most important industries along the Oregon coast and hypoxia kills huge amounts of crabs.

Executive Summary

This handout discusses the five main actions the OAH Council strives to address when combating OAH. This two page summary was translated into Spanish because this handout does a really good job summarizing the OAH Council's goals, as well as discussing what OAH is.

Take Action

This handout discusses how the reader can help the OAH council achieve it's goals from working with industry representative to attending local seminars. Translating this handout was important because OAH is an issue that impacts everyone and it's important to address how we can all make a difference.

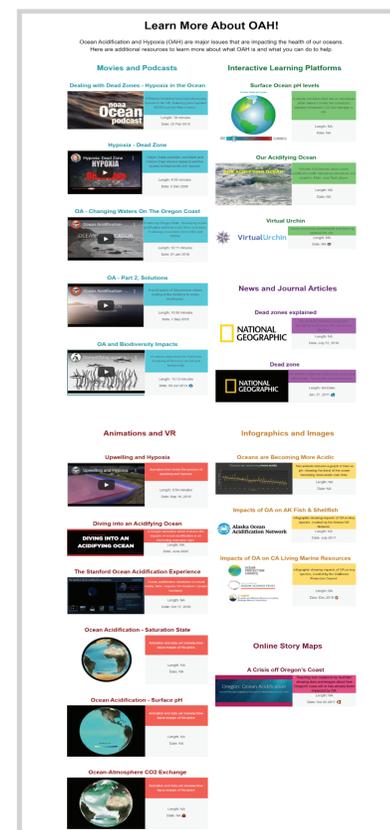
New OAH Education Tab

The web-page is divided into six color coded pages: Movies and Podcasts, Interactive Learning Platforms, News and Journal Articles, Animations and VR, Infographics and Images, and Online Story Maps.

This web-page was made to highlight resources about OAH in a variety of mediums, all in one place. For example there are videos, podcasts and articles available.

Small additional updates were made to the OAH Council's website such as updating their bios page and small ui fixes.

The OAH Council posts updates and OAH resources on their website: <https://www.oregonocean.info/index.php/ocean-acidification>



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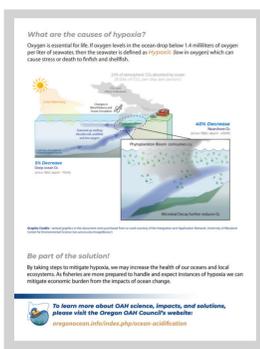
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Community Surveys and OAH Council Next Steps

Survey form with a language dropdown menu (English) and a question: "What barriers, if any, have you, a friend, or family member experienced when accessing ocean science information? (check all that apply)"

A 16 question survey was made to reach out to the Spanish speaking community of Oregon and access areas where the OAH Council could improve their outreach methods to this community. Questions range from asking the reader on what the ocean means to them, their preferred methods of receiving information and any barriers to receiving this information. The survey was also translated into Spanish.

Next steps are to analyze the results of the survey and use these data to improve OAH outreach materials to better cater to the Spanish speaking community of Oregon.