



Species Spotlight

Olympic and Pacific Oysters

Ocean Acidification (OA) and Hypoxia (H) are harmful to ocean life and the economic stability of the Oregonians who rely on a healthy ocean. Olympic oysters (native) and Pacific oysters (cultured) provide important ecological and industry opportunities throughout coastal Oregon.

What is at risk?

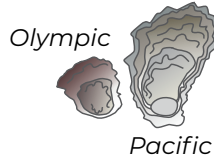


Habitat Effects



Eelgrass, habitat for Olympic and Pacific oysters, may buffer short term effects of OAH through photosynthesis (absorbing CO₂ and releasing oxygen).

Cumulative Effects



Small changes in pH make a large difference in growth conditions, which could affect Olympic and Pacific oysters throughout their life.

Direct Effects



Larval growth and calcium carbonate shell formation in Olympic and Pacific oysters are lowered by OA.

Hatchery Effects



Pumped seawater used in hatcheries now must be chemically modified to reduce the effects of OAH on larval Pacific oysters.

Foodweb Effects



Species shifts in phytoplankton, feed for Olympic and Pacific oysters, may occur with changing ocean conditions.

Economic Effects



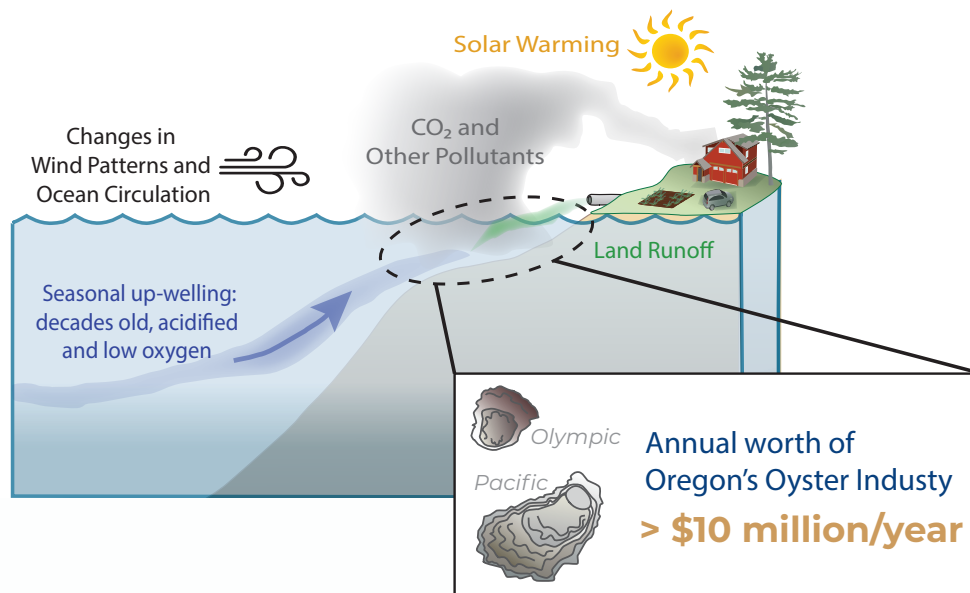
With declining larval supplies, Pacific oyster farmers may experience declines in production.

What is OAH?

Ocean acidification and hypoxia (OAH) are increasing, and are related to the same factor that is causing climate change.

The culprit? Fossil fuel combustion and related accumulation of CO₂ and other greenhouse gases.

The solution? Local actions will lead to a brighter future, for the oceans, its species and the communities that depend on them. We can and must act now!



The earth's oceans have absorbed 30% of the excess CO₂ produced from fossil fuel combustion since the Industrial Revolution (mid 1800s). When absorbed by seawater, CO₂ undergoes chemical reactions that lower seawater pH (making it more acidic), and thus hampers shell formation in marine life. Hypoxia (low oxygen) conditions are also on the rise as a result of climate change, due to changing wind and weather patterns. This is leading to extended periods of hypoxia in some of Oregon's coastal waters, impacting a wide range of marine animals from crabs to fish.

Support Action!

Ocean Acidification and Hypoxia (OAH) will not stop on its own, and actions must be taken by regional and national governments, communities, and scientists now in order to address the growing problems. Through coordination and collaboration, such as through the **Oregon OAH Action Plan**, Oregon will be able to adapt and mitigate the effects of OAH. Solutions are needed to help Oregon's wild fisheries and marine resources withstand the projected changes in OAH.



To learn more about OAH science, impacts, and solutions, please visit the Oregon OAH Council's website:

oregonocean.info/index.php/ocean-acidification