

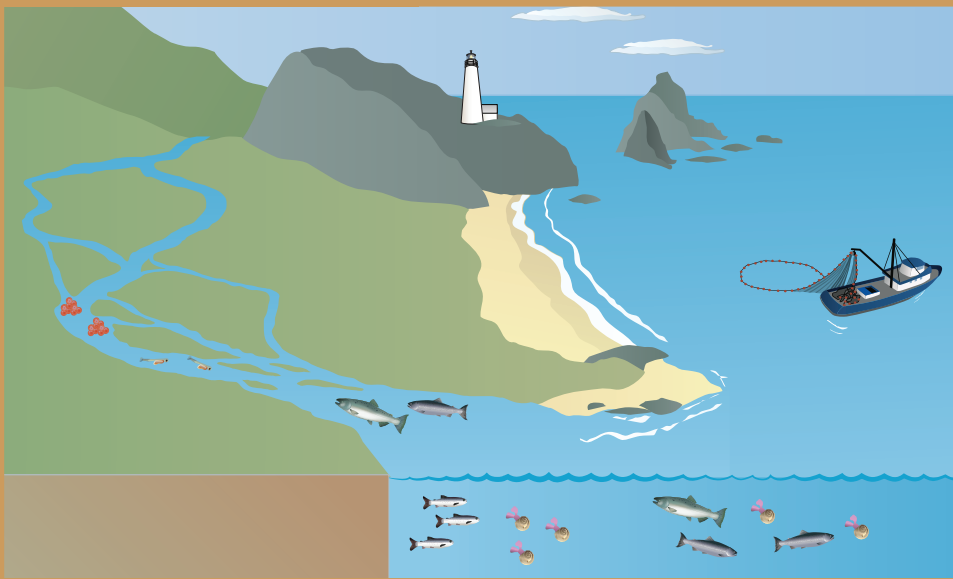


Species Spotlight

Salmon

Ocean Acidification (OA) and Hypoxia (H) are harmful to ocean life and the economic stability of the Oregonians who rely on a healthy ocean. Salmon are one of the favorite pursuits of Oregon's recreational and commercial anglers, as well as being an essential cultural resource Northwest tribes.

What is at risk?



Habitat Effects

Changes in OAH can not only affect oceans but are also experienced in estuarine and river environments.

These environmental effects have carryover into all aspects of the Salmon life cycle.

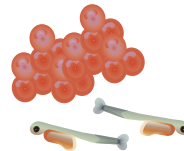


Foodweb Effects



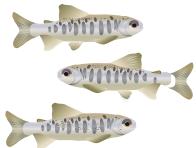
Pteropods (marine snails) are key prey, whose shells are sensitive to OA and are pitted by increased acidity.

Cumulative Effects



Early Salmon life stages' survival could be altered as a result of material diet changes due to OAH.

Direct Effects

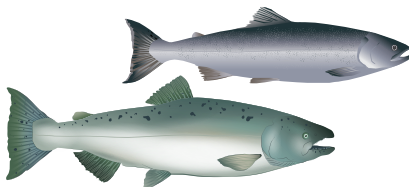


Juveniles may experience reduced growth rates, which can increase the risk of predation.

Sensory Effects



Signaling in brains can be disrupted, causing fish to possibly not recognize prey, predators, or migration cues.



Economic Effects

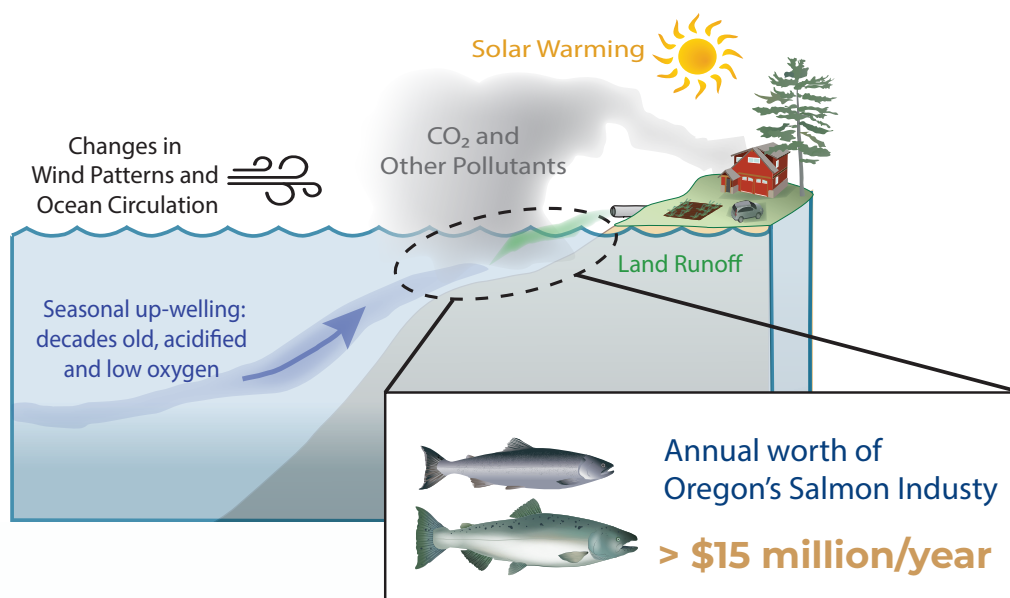
Fisheries managers and researchers are not certain how OAH effects may compound across Salmon life stages and on habitats, or if there will be any effects on commercial and recreational Salmon harvests.

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