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Subject: FW: [CALNG] RE Senate Bill 557
Date: Wednesday, April 12, 2017 11:50:25 AM

I am asking you to please support Senate Bill 557 and move it out of committee this Wednesday.

Our Oregon oyster and shellfish industries are in trouble due to Ocean Acidification, a direct result of high CO2 in our atmosphere. As the attached article clearly explains, rising acidity has already cost the Oregon and Washington shellfish industries \$110 million, and endangered 3,200 jobs. Those figures will only get worse in the coming decades if we do nothing. WE MUST act now to limit climate pollution and invest in a transition to clean energy and greater energy efficiency that will create instead of destroy jobs in our rural communities.

Thank you for listening and for moving Senate Bill 557 forward.

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<http://news.discovery.com/earth/oceans/us-oysters-scallops-getting-cooked-by-acidic-seas-150223.htm>

US Oysters, Scallops Getting Cooked by Acidic Seas

FEB 23, 2015 - / BY ERIC NILER

Oysters, clams and scallops are going to cost a lot more at your favorite seafood market or restaurant, while fishing communities in southern New England, the Pacific Northwest, coastal Alaska and parts of Maine will likely take a big hit as shellfish start feeling the effects of rising ocean acidification, according to a new study by a team of marine scientists.

As climate-warming greenhouse gases are pumped into the earth's atmosphere, the oceans are absorbing more carbon dioxide. This causes a chemical reaction that makes seawater more acidic, especially in colder regions. Higher levels of acidity are already destroying the larvae some species of shellfish.

"There's not a lot of room for error," said Mike Rice, professor of fisheries and aquaculture at the University of Rhode Island, who was not associated with the report. "The data seem to show the areas of biggest risk are the cooler water areas. Areas like Rhode Island and southern Massachusetts that have a fairly robust shellfish industry need to be worrying."

The study's authors reviewed data from multiple fields and published their findings today in the journal *Nature Climate Change*. It states that rising acidity has already cost the Oregon and Washington shellfish industries \$110 million, and endangered 3,200 jobs. Those figures are likely to get worse in the coming decades, according to lead author Julia Ekstrom, director of the climate adaptation program at the University of California, Davis.

"We looked at all the coasts around the United States," Ekstrom said. "There are more places vulnerable than we previously thought. That said, every region has a unique set of factors that makes it vulnerable. Understanding what makes you vulnerable is useful to guide how you will adapt."

Shellfish larvae are the most at risk. Once the shell has developed into an adult, the animal has more protection. Some species can handle the acidic ocean waters better than others, and some fishing communities may be forced to build more on-shore nurseries, or harvest other kinds of shellfish.

The marine ecosystems and shelled molluscs around the Pacific Northwest and Southern Alaska are expected to be exposed soonest to rising global acidification, followed by the

north-central West Coast and the Gulf of Maine, the report stated. The most vulnerable areas will feel the effects by 2030. In addition, pockets of marine ecosystems along the East and Gulf Coasts (such as parts of the Chesapeake Bay and the Gulf Coast of Florida) will experience acidification earlier than global projections indicate. That's because these coastal waters are also getting polluted with by excess runoff, fertilizers and nutrients, a process known as eutrophication.

Right now, 95 percent of the U.S. shellfish revenue comes from only 10 species, according to Ekstrom. The scientists still don't know which of these will fade first.

"We need a fuller understanding of those species to understand the economic impact," Ekstrom said. "Is it going to destroy the sea scallop industry, which is over 50 percent (of revenue)?" If that is one of the more resilient species, the effects won't be as dramatic."

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