Senators hear about effects of changing oceans... and consider more oil drilling

Contributed by Les Blumenthal
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[About ocean acidification:] "It's crazy they are discussing more drilling," said Sen. Maria Cantwell, D-Wash., suggesting the real priority needs to be slowing or halting what could be irreversible damage to oceans from climate change. "It's incredibly important, and we need to get a handle on it."

Coastal Economics: Bleak picture presented to Cantwell's subcommittee

WASHINGTON - In Washington state, oysters in some areas haven't reproduced for four years, and preliminary evidence suggests the increasing acidity of the ocean could be the cause. In the Gulf of Mexico, shrimp disoriented by oxygen-depleted water jump into the air in what the locals call a "shrimp jubilee."

Marine organisms that could produce life-saving medicines - sea fans, the fungus growing on seaweed, and bacteria in deep sea mud - are under assault from changing ocean conditions. Two marine-derived drugs, one for treating cancer and the other for pain control, are on the market and 25 others under development.

Yet even as researchers, scientists and Jacques Cousteau's granddaughter painted a bleak picture Tuesday of the future of oceans and the "blue economy" of the nation's coastal states, Sen. Maria Cantwell, D-Wash., had to scurry off to another meeting where senators voted to allow additional offshore oil drilling.

"It's crazy they are discussing more drilling," said Cantwell, suggesting the real priority needs to be slowing or halting what could be irreversible damage to oceans from climate change. "It's incredibly important, and we need to get a handle on it."

The hearing before Cantwell's oceans subcommittee of the Senate Commerce Committee was expected to focus on how the degradation of the oceans was affecting marine businesses and coastal communities. But instead, much of the testimony focused on how the waters covering 70 percent of the planet are already changing because of global warming.

Others testified that the economic toll eventually could be enormous for ocean-related industries such as fishing and for the nation's coastal communities.

In Washington, maritime activity generates more than $3 billion annually. More than 3,000 fishing vessels employ 10,000 people, and the Port of Tacoma alone engaged in $35.4 billion in total trade creating 113,000 jobs statewide.

Ocean acidification or a disease that thrives in acidified, oxygen-depleted seawater could be responsible for oysters not reproducing in Washington, said Brad Warren, who overseas the ocean health and acidification program of the Sustainable Fisheries Partnership in Seattle. A federal study found that two-thirds of larval blue crabs died when exposed to acidity levels like those currently measured off the West Coast, he said.

Federal studies also found acidity levels in the North Pacific and off Alaska that are unusually high compared to other ocean regions. The high acidity is already taking a toll of such tiny species as pteropods, which are an important food for salmon and other fish.

As greenhouse gas emissions increase, billions of tons of carbon dioxide from smokestacks and vehicle tailpipes are absorbed by the oceans. The result is carbonic acid, which dilutes the "rich soup" of calcium carbonate in the seawater that many species, especially on the low end of the food chain, thrive in, Warren said.

"If we lose it, it is gone forever," Warren said of the oceans' delicate chemical balance.

In the Gulf of Mexico, Alexandra Cousteau said, the runoff down the Mississippi River from farms in the Midwest has created a dead zone the size of New Jersey where few species can survive. Wetlands in Louisiana are disappearing at the rate of 33 football fields a day as hurricanes grow in strength and frequency because of climate change, she said.

"We must start to realize that there can be no standalone policies, especially as they relate to our water resources," Cousteau said. "Energy, transportation, climate change, infrastructure, agriculture, urban development: This is where our ocean policy must begin. It is all interconnected."

Taken together, the ocean and coastal economies, including the Great Lakes, provide more than 50 million jobs and make up nearly 60 percent of the nation's economy.

"Significant environmental changes, such as sea level and sea temperature rise, oxygen depletion and ocean acidification, will dramatically change the landscape, restructuring an array of natural and physical assets as well as cultural and economic," said Judith Kidlow of the National Ocean Economics Program. "Over the next 30 years the nation will see the most significant changes in the ocean and coastal economies since the arrival of industrialization and urbanization."

Cantwell suggested a doubling of the National Oceanic and Atmospheric Administration budget, which is now about $4 billion, and giving the agency additional responsibilities.

But Cantwell said the key has to be passing comprehensive climate change legislation to reduce carbon emissions.
"Protecting our oceans is an environmental and economic imperative," Cantwell said.

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