Ocean Conservancy®

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# THE NEXUS: OCEAN ACIDIFICATION NEWS, POLICY AND SCIENCE

**April 2018**

*We finally have federal budget information for FY18! While that was coming together, the research community was also very busy—read on for more. As always, let us know if we can feature a story you know about!*

*Regards,*
*Sarah Cooley, Ph.D., Ocean Acidification Program Director*

## Federal Funding for OA Science

Despite concerns about possible budget cuts, Congress kept support for NOAA's Ocean Acidification Program (OAP) strong in FY18. The program received $11 million for FY18, a $500,000 increase from FY17 and a total increase of $5 million since 2013, when Ocean Conservancy began advocating for OAP funding. Thanks to your expert voices, Congress knows that strong OAP funding is critical to understanding our ocean in a changing world. We are optimistic that Congress will continue to support OAP in FY19 (despite the current proposal), with a record 50 Democratic and 13 Republican Congress members signing letters of support to the House Appropriations Committee.

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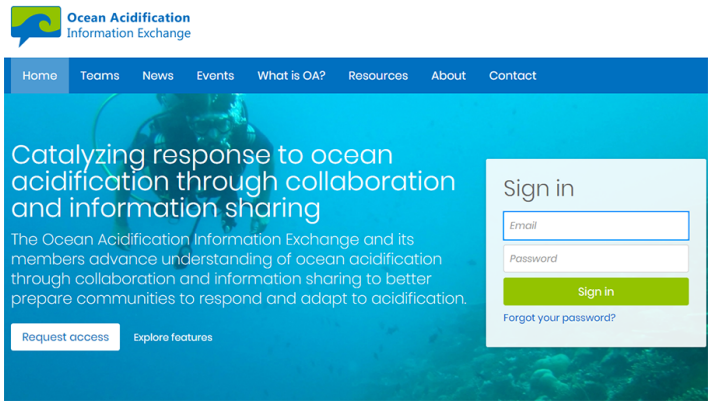
## A Virtual Water Cooler for the OA Community




The OAP launched the Ocean Acidification Exchange this past February, a new information clearinghouse that not only gathers all the OA news and events in one spot, but also provides a platform for digital discussions across the community. The tagging system allows you to

sort by topic or geography so you can find what you're looking for easily, regardless of your status in the community. **CHECK IT OUT>>**

**Getting a Handle on Acidification in Lakes**

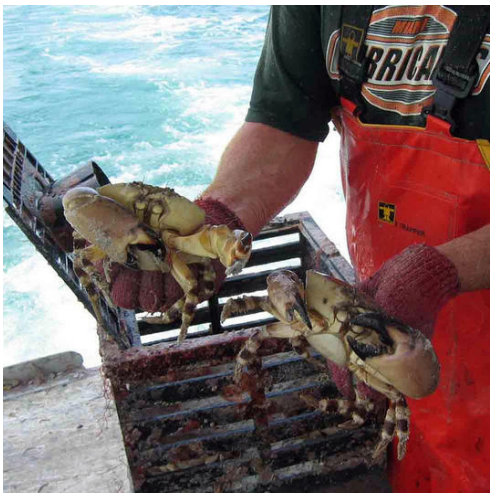
Although atmospheric $CO_2$ dissolves in lakes the same way as it does in the ocean, there haven't been as many studies of atmospheric-$CO_2$ driven acidification in lakes as those completed for the ocean. Generally, high-quality datasets don't exist—not even for the U.S. Great Lakes. But researchers using a 35-year dataset have just shown that atmospheric $CO_2$-induced acidification is happening in four German lakes, and it causes C` ogmì , a common type of freshwater zooplankton, to less successfully defend against predators. The full consequences of atmospheric $CO_2$-driven acidification on lake ecosystems are yet to be determined. **LEARN MORE>>**

**BOB's on the Job**

Early this year, scientists launched a new monitoring buoy just outside of San Francisco State University's Estuary and Ocean Science Center, kicking off the first long term effort to measure ocean acidity in San Francisco Bay. The Bay Ocean Buoy, known as BOB, will help scientists capture the immediate state of pH in the San Francisco Bay, as well as the chemical changes caused by upwelling events and other environmental changes over time. Long term data collection like this will be essential for helping coastal communities and decisionmakers best prepare for changing environmental conditions. **LEARN MORE>>**

**Stone Crabs Feel the Pinch of OA**

Florida's stone crab industry was valued at $36.7 million in 2015, but average commercial harvest has declined by about 25 percent since 2000. A new study from Mote Marine Laboratory reveals stone crab embryos develop slower and babies hatch less frequently under ocean acidification conditions. The impacts



are exacerbated when combined with low oxygen levels, harmful algal blooms, habitat loss and nutrient runoff. Fortunately, Mote scientists are studying stone crabs at different life stages and under various environmental conditions to help resource managers protect this economically important fishery. READ MORE>>

**Phytoplankton Can't Iron Out OA's Effect**

In a surprising development on the impact of OA, phytoplankton, particularly diatoms, growing in low-iron areas of the ocean may be less able to take up iron because of OA. An iron transport molecule in diatoms needs carbonate to function correctly and when OA decreases carbonate ion levels, the iron uptake by the diatoms slows. This could decrease the diatoms' growth rate and change primary production in open ocean regions. READ MORE>>

**In the next issue:**

- Capital Hill Oceans Week—June 5-8, 2018
- The Effect of Climate Change on the World's Oceans—June 4-8, 2018
- And more!

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