

CLIMATE NEWS

From Sheldon Whitehouse, Barbara Boxer, Jeff Merkley, and Brian Schatz

DPCC Meeting | May 12, 2016 | Issue 127

Winter Ticks Decimate N.H. Moose Herds



Climate change and thriving tick populations are likely to blame for declining moose herds in the northeastern United States, researchers say. An ongoing six-year study to better understand the threats facing moose populations in New Hampshire has already yielded data about the consequences global warming can have on the big animals, say the researchers. New Hampshire Fish and Game Department leaders began studying moose mortality and productivity in 2014 in partnership with University of New Hampshire graduate students. The group collared about 45 moose cows and calves in 2014 and an additional 45 in 2015. Of the animals collared in the first year, researchers recorded 64 percent mortality for moose calves and 5 percent mortality for adult cows. Last year, calf mortality was 74 percent and adult mortality was 5 percent, according to results released earlier this year. Researchers say mild winters have allowed tick populations to thrive. They point to the bugs as the main culprit for reduced moose numbers. A separate study from 2001 to 2006 confirmed winter ticks as the primary cause of moose mortality. They are particularly problematic because their larvae climb vegetation in search of a host, interlocking legs before grabbing onto their victim. Rines said ticks thrive in fall weather patterns, which are warm and snow-free and allow ticks to search for a host for a long period of time. ([EENews](#))

World Bank: Climate Change is Going to Hurt Us Through Water

The World Bank has released a new report finding perhaps the most severe impact of climate change could be the effect on water supplies. The report suggests that by 2050, an inadequate supply of water could reduce economic growth in some parts of the world by as much as six percent of GDP, "sending them into sustained negative growth." Regions facing this risk include not only much of Africa but also India, China, and the Middle East. Climate change hits water supplies in multiple ways. Warm temperatures can cause more evaporation of water from landscapes, while changes in precipitation can lead to both more intense individual downpours, as well as swings into drought conditions. The threat from all this is not just to what people drink but what they eat: the human activity that consumes the most water is agriculture. And then, there's sea-level rise: it can push into coastal aquifers, as is happening today in the state of Florida, making them more saline and less usable for human needs. If there's good news, it's that the report does find that resilience measures, such as improvements to water infrastructure, can reduce the risks in many regions. ([Washington Post](#))

Oil Giants Worth More by Drilling Less in a Low-Carbon World

Seven major oil and gas companies could increase their collective value by roughly \$100 billion if they bring their future investments in oil and gas fields in line with plans to limit global warming to two degrees Celsius, according to a new assessment. Investors "may be surprised at just how much value can be created by oil and gas companies in a carbon-constrained scenario," said the report by the Carbon Tracker Initiative, a think tank based in London. At current oil prices, the group estimated that the portfolio of the combined majors' oil and gas projects would be worth about \$140 billion more if they left enough fuels in the ground to keep the world within the carbon budget for two degrees. Even if oil prices rebounded to \$100 per barrel, sticking to the two-degree target would produce \$55 billion higher valuations than a business-as-usual approach. "You can actually create more value for your shareholders by investing as if preparing for a low-demand world," said Andrew Grant, a financial analyst with Carbon Tracker. The study looked at oil and gas asset investments by the world's seven largest privately owned oil and gas companies, including oil giants ExxonMobil, Shell and BP. The study comes at a time when shareholders and financial regulators are challenging energy companies to fully explain and disclose the risks they face as the world turns away from fossil fuels in order to head off dangerous climate change. ([insideclimatenews](#))

Acidification, Low Oxygen Put Fish in Double Jeopardy

Severe oxygen drops in the water can leave trails of fish kills in their wakes, but scientists thought adult fish would be more resilient to the second major threat in coastal waters: acidification. A new study published from the Smithsonian Environmental Research Center shows that is not entirely true--where fish are concerned, acidification can make low oxygen even more deadly. Low oxygen and high acidity almost always go hand-in-hand. Worldwide, both low oxygen and acidity are expected to worsen as ocean temperatures rise. But until now, most research on how well fish cope has focused on either oxygen or acidification alone. This new study shows the consequences of the double threat: fish exposed to low oxygen and high acidity can die at higher oxygen levels, suggesting the low-oxygen thresholds considered "safe" might not be as safe as once thought. Even more surprising was the discovery that acidity hurt adult fish. ([ScienceDaily](#))