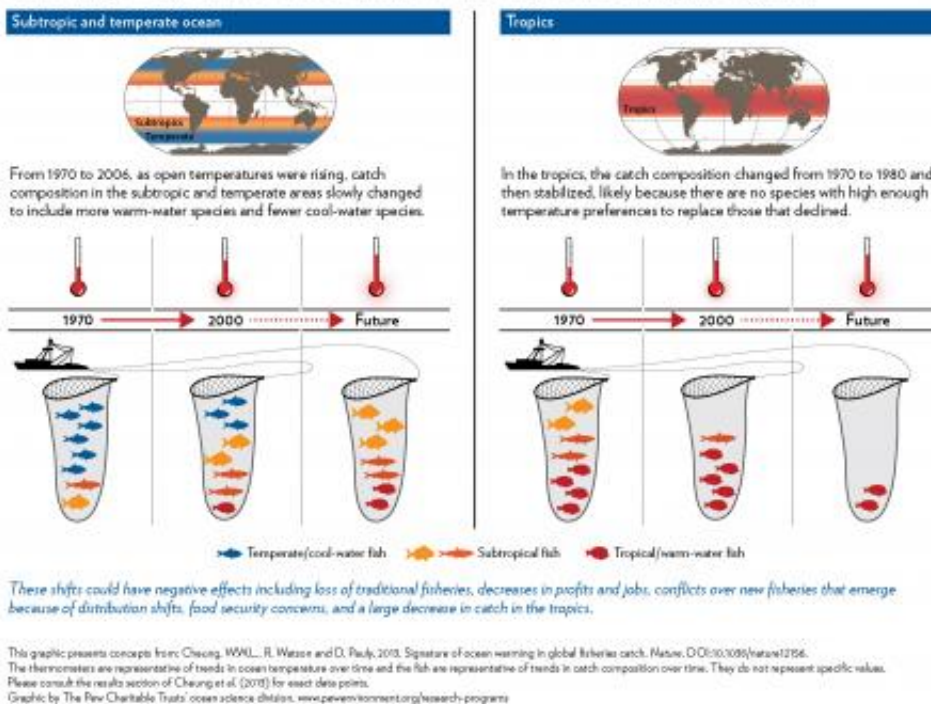


# 'Fish thermometer' reveals long-standing, global impact of climate change

May 15 2013

## Warming Oceans Are Reshaping Fisheries

Marine species are gradually moving away from the equator into cooler waters, and, as a result, species from warmer waters are replacing those traditionally caught in many fisheries worldwide. Scientific studies show that this change is related to increasing ocean temperatures.



Marine species are gradually moving away from the equator into cooler waters, and as a result, species from warmer waters are replacing those traditionally caught in many fisheries worldwide. Scientific studies show that this change is related to increasing ocean temperatures. Credit: The Pew Charitable Trusts.

Climate change has been impacting global fisheries for the past four decades by driving species towards cooler, deeper waters, according to

University of British Columbia scientists.

In a *Nature* study published this week, UBC researchers used temperature preferences of fish and other marine species as a sort of "thermometer" to assess [effects of climate change](#) on the world's oceans between 1970 and 2006.

They found that [global fisheries](#) catches were increasingly dominated by warm-water species as a result of fish migrating towards the poles in response to rising [ocean temperatures](#).

"One way for [marine animals](#) to respond to ocean warming is by moving to cooler regions," says the study's lead author William Cheung, an assistant professor at UBC's Fisheries Centre. "As a result, places like New England on the northeast coast of the U.S. saw new species typically found in warmer waters, closer to the tropics.

"Meanwhile in the tropics, climate change meant fewer marine species and reduced catches, with serious implications for food security."

"We've been talking about climate change as if it's something that's going to happen in the distant future – our study shows that it has been affecting our fisheries and oceans for decades," says Daniel Pauly, principal investigator with UBC's Sea Around Us Project and the study's co-author. "These global changes have implications for everyone in every part of the planet."

**More information:** Paper: [dx.doi.org/10.1038/nature12156](https://doi.org/10.1038/nature12156)

Provided by University of British Columbia

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