Study: Warming Oceans Cause Fish Decline As High as 35%

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Researchers compared the changes in 235 fish and shellfish populations across 38 ocean regions that have occurred from 1930 to 2010 - a 4% decrease.

A new study concludes that climate change is adversely affecting the quantity of fish in the oceans. The scientists also noted that overfishing, specifically in the Sea of Japan region - where the decline is as high as 35%, has significantly added to the problem.

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“We were surprised at the strength the impact of warming has already had on fish populations,” study lead author and University of California Santa Barbara ecologist Chris Free, stated.

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In 2016, 171 million tons of fish were taken from the sea, and that number is trending to rise to 201 million in the next 10 years.

Overall, about 8% of the fish and shellfish populations that was studied experienced losses as a result of the ocean warming, while a 4% population increase took place in others, according to Science journal.

Notably, the warmer waters can put metabolic stress on the fish, affecting reproduction or food sourcing - causing zooplankton - essential fish food - to decline.

“It's like a one-two punch,” study co-author Malin Pinksy, an ecologist at Rutgers, remarked.

“If fishing already knocks them down, they're more likely to respond poorly when it's hot. We knew that animals were moving into new locations, but I didn't realize it already affected the ability of these populations to produce fish.”

Pinksy warned that growing fish populations should be viewed with caution, since “fish are a bit like goldilocks. For some it's too cold, but warming will make it too hot.”

According to the study’s findings, the sustainable catch of 124 fish and shellfish species have been directly linked to warming of the world’s ocean, over the past 80 years.

“Food security is a big concern,” Pinksy explained, adding that an estimated three billion people use fish as their primary source of protein.

“Beyond that... we also know that it has very important local impacts for those who make their livelihoods catching these fish,” the Rutger ecologist said, noting that “no-take” zones could be implemented as a population replenishing mechanism.

The study also revealed that ocean temperatures have increased by about half a degree Celsius.