

Posted: February 22
Updated: Today at 8:28 PM

Oceans' large predator fish are sinking fast

More than 54 percent of the decrease in larger fish has taken place over the past 40 years, research shows.

The Washington Post

WASHINGTON — Over the past 100 years, some two-thirds of the large predator fish in the ocean have been caught and consumed by humans, and in the decades ahead, the rest are likely to perish, too.

In their place, small fish such as sardines and anchovies are flourishing in the absence of the tuna, grouper and cod that traditionally feed on them, creating an ecological imbalance that experts say will forever change the oceans.

"Think of it like the Serengeti, with lions and the antelopes they feed on," said Villy Christensen, of University of British Columbia's Fisheries Centre. "When all the lions are gone, there will be antelopes everywhere. Our oceans are losing their lions and pretty soon will have nothing but antelopes."

This grim reckoning was presented at the American Association for the Advancement of Science's annual meeting Friday during a panel that asked the question: "2050: Will there be fish in the ocean?"

The panel predicted that while there would be fish decades from now, they will be primarily the smaller varieties currently used as fish oil, fish meal for farmed fish and only infrequently as fish for humans. People, the experts said, will have to develop a taste for anchovies, capelins and other smaller species.

That the oceans are being overfished has been documented before, and the collapse of species such as cod and Atlantic salmon is also well-known.

The new research attempts to quantify the overall decline in larger fish, based on data from more than 200 ecological systems studied since 1880. Those results were then modeled across the globe. One startling conclusion: More than 54 percent of the decrease in large predator fish has taken place over the past 40 years.

In describing the likely explosion of small fish, Christensen's team differed with a 2006 report in the journal *Science* that warned of an ocean without fish for humans by mid-century.

But they say that absent predators, the fisheries will be out of balance and more subject to mass die-offs from disease and from boom-and-bust cycles that, over time, can lead to algae or bacteria blooms that take the oxygen out of the waters and make them uninhabitable.

Jacqueline Alder, of the U.N. Environment Program, suggested that the number of fishing boats and days they fish have to be restricted.

In an effort to stabilize some fish populations, national and international organizations and governments have placed quotas on the yearly catches of some species and have banned the taking of endangered fish entirely in some areas. Some regulations have also been placed on the kind of netting and trawling that can be used in sensitive areas.

But the fishing fleets are growing in size and sophistication, said University of Tasmania scientist Reg Watson. "Humans have always fished," he said. "We are just much, much better at it now."