

## 'Wild' oceans at risk from overfishing

BY BRADLEY BOUZANE, POSTMEDIA NEWS FEBRUARY 21, 2011



Overfishing of predatory species, such as tuna, is contributing to an overabundance of smaller fish, which could lead to more disease.

**Photograph by:** Herald Archive, AFP-Getty Images, Postmedia News

The overfishing of cod, tuna and other predatory fish has led to a sizable increase in smaller fish - potentially threatening marine ecosystems and the very existence of "wild" oceans as we know them, a team of British Columbia scientists is warning.

The world's predatory fish population has dropped by about two-thirds over the past century, says the group from the University of British Columbia's Fisheries Centre.

Meanwhile, the stocks of "forage" fish, such as capelin, sardine and anchovy, have increased by more than 100 per cent.

The researchers call the process "fishing down the food-web" and say it could change the face of the world's oceans, in short order.

"There are still a lot of fish in the sea, but they're just smaller," lead researcher Prof. Villy Christensen said from Washington, where the findings were being presented Friday at the American Association for the Advancement of Science.

"It means we are removing the fish that control the (marine) ecosystems and we're moving toward an unhealthy situation."

Led by Christensen, a team of scientists examined more than 200 marine ecosystem models from around the world, dating back to 1880.

Christensen said the revealed trend could threaten marine ecosystems with more disease and other problems.

"Take the Serengeti, for example. What would happen there if we removed all the predators -no lions or leopards? The antelopes and other plant eaters would grow in number and there would be no one to remove the sick, old and injured animals, and that could lead to widespread problems with diseases."

With a shift to smaller species, Christensen said the oceans' uses could also drastically change.

"Currently, forage fish are turned into fish meal and fish oil and used as feeds for the aquaculture industry.

... If the fishing-down-the-food-web trend continues, our oceans may one day become a farm to produce feeds for the aquaculture industry," he said.

Christensen discussed the issue in a panel in Washington that explored what the world's oceans would look like by 2050. The panel said the majority of fish will be forage species. The scientists also found that the bulk of the predatory fish decline -54 per cent -has occurred in the past 40 years.

Although the smaller fish are able to thrive in this situation, Christensen warned environmental changes could result in further population fluctuations. "And that's a scary outlook," he said.

Christensen said overfishing creates a "when cats are away, the mice will play" situation that allows forage species to thrive with reduced threats.

To curb this, he said changes to global fishing practices are needed.