



Take away the predators at the top of the food chain — the lions, tigers, wolves and cougars — and entire ecosystems start to change. A paper in today's edition of the journal *Science* suggests that humans' destruction of these top predators is causing reverberations worldwide in ways not apparent even a decade ago, including changes in the landscape and even increases in wildfires.

Although the idea that there are serious ecosystem consequences to the removal of top predators isn't new, with this paper, "it's come of age," says Aaron Wirsing, a professor of wildlife ecology at the University of Washington in Seattle.

The review was conducted by two dozen scientists in six countries. It was funded by the National Science Foundation in the USA, Canada's Sciences and Engineering Research Council of Canada and others.

The loss of species at the top of the food chain has been happening worldwide either because humans believed they harmed livestock, competed for wild game or simply because ecosystems had become too fragmented to support them.

Overfishing led to declines of sea lions, the preferred food of killer whales, and they began eating sea otters, whose populations in Alaska's Aleutian Islands declined 90% from the late 1980s to 2005, according to the U.S. Geological Survey.

[More...](#)