

---

Global warming making oceans sick, spreading disease in humans and animals, scientists warn

06/09/2016



Global warming is making the oceans sicker than ever before, spreading disease among animals and humans and threatening food security across the planet, a major scientific report said.

The findings, based on peer-reviewed research, were compiled by 80 scientists from 12 countries, experts said at the International Union for Conservation of Nature (IUCN) World Conservation Congress in Hawaii.

"We all know that the oceans sustain this planet. We all know that the oceans provide every second breath we take," IUCN director general Inger Andersen said at the meeting, which has drawn 9,000 leaders and environmentalists to Honolulu.

"And yet we are making the oceans sick."

The report, *Explaining Ocean Warming*, is the "most comprehensive, most systematic study we have ever undertaken on the consequence of this warming on the ocean", co-lead author Dan Laffoley said.

The world's waters have absorbed more than 93 per cent of the enhanced heating from climate change since the 1970s, curbing the heat felt on land, but drastically altering the rhythm of life in the ocean, he said.

Mr Laffoley, marine vice chair of the World Commission on Protected Areas at IUCN, said "the ocean has been shielding us and the consequences of this are absolutely massive".

[Related Story: US, China join climate deal in 'turning point' for planet](#)

[Related Story: Climate change 'could halve coffee production by 2050'](#)

[Related Story: Climate warming 'started about 180 years ago' near the beginning of the Industrial Revolution](#)

Warming likely to change turtle sex ratio



The study included every major marine ecosystem, containing everything from microbes to whales, including the deep ocean.

It documents evidence of jellyfish, seabirds and plankton shifting toward the cooler poles by up to 10 degrees latitude.

Mr Laffoley said the movement in the marine environment was "1.5 to five times as fast as anything we are seeing on the ground."

"We are changing the seasons in the ocean."

The higher temperatures will probably change the sex ratio of turtles in the future, because females are more likely to be born in warmer temperatures.

The heat also means microbes dominate larger areas of the ocean.

"When you look overall, you see a comprehensive and worrying set of consequences," Mr Laffoley said.

### **Evidence warming causing plant, animal disease**

More than 25 per cent of the report's information is new, published in peer-reviewed journals since 2014, including studies showing global warming is affecting weather patterns and making storms more common.

The study includes evidence ocean warming "is causing increased disease in plant and animal populations", it said.

Pathogens such as cholera-bearing bacteria and toxic algal blooms that can cause neurological illnesses such as ciguatera poisoning spread more easily in warm water, with direct impact on human health.

"We are no longer the casual observers in the room," Mr Laffoley said.

"What we have done is unwittingly put ourselves in the test tube where the experiment is being undertaken."

### **Coral reefs killed off at unprecedented rate**



Meanwhile, the hotter oceans have killed off coral reefs at an unprecedented rate, reducing fish species by eliminating their habitats.

The loss of reefs cuts down on the abundance of certain fish, with implications for food security.

"In South-East Asia, harvests from marine fisheries are expected to fall by between 10 per cent and 30 per cent by 2050, relative to 1970-2000, as the distributions of fish species shift," the report said.

The report highlights the need for swift action on renewable energies, experts said.

"We need to cut greenhouse gases," director of the global marine and polar program at IUCN Carl Gustaf Lundin said.

"There is no doubt in all our minds that we are the cause of this.

"We know what the solutions are. We need to get on with it."

**AFP**

---