



Environment

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Inflated Chinese Fisheries Data Masks Global Fish Decline

VANCOUVER, British Columbia, Canada, November 29, 2001 (ENS) - Contrary to statistics published by the United Nations Food and Agricultural Organization (FAO) which indicate that the global fisheries catch is stable, Canadian fisheries scientists have documented evidence that catches have been declining for over a decade.

This new evidence, published in today's issue of the journal "Nature," means that the true state of the oceans is far worse than anyone has previously realized.

"The global catch trend is not increasing, it is not even stable, but rather it has been decreasing steadily since the late 80's," states one of the study's authors, Dr. Reg Watson of the [University of British Columbia Fisheries Centre](#).

Dr. Daniel Pauly (Photo courtesy UBC Fisheries Centre)

"The bottom line is that the downward trends in global fisheries catches have been obscured. Fisheries management and economic decisions are being based on flawed data," says Dr. Daniel Pauly, the other author, who also works at the UBC Fisheries Centre.

The two fisheries scientists say that "vast over-reporting by the People's Republic of China combined with the large and wildly fluctuating catch of a small fish, the Peruvian anchoveta, have painted a false picture of the health of the oceans by inflating the catch statistics and implying that business as usual is sustainable."

"These earthshaking findings are the most significant fishery and food security results in decades," says Dr. Jane Lubchenco, a professor at Oregon State University and former president of the American Association for the Advancement of Science.

"They call into question the very basis of international fisheries management," Lubchenco said.

Anchovies are important prey for marine mammals and larger fish. (Photo courtesy [U.S. National Oceanic and Atmospheric Administration](#))



Presently, only a single institution, the FAO, maintains global fisheries statistics. As a UN organization, the FAO receives but is not able to verify the statistics reported by member countries, even when they are suspected of being wrong. No mechanism exists for independent verification of catch reports.

"I have been troubled a long time by the mismatch between what we know is the case for various fisheries - that they are going downhill - and the triumphalist reports of a global catch that continues to increase," says Pauly, an international authority on global fisheries.

"This study reconciles what we see at the local level, failing fisheries, with what is happening at the global level - falling catches," he said.

Using catch data collected by the FAO and a statistical analysis that compared the predicted fisheries against those reported, Pauly and Watson showed errors in the official fishery statistics. These inflated statistics have led to complacency about the need to more effectively manage fisheries and have resulted in unwise investment decisions by banks and industry.

Over the past 30 years there have been steep increases in the exploitation of world fisheries. More species are being marketed and new fishing areas have been opened.

Fishing pressures are devouring what Watson and Pauly call "the accumulated old growth riches of the sea."

Despite scientists' widespread expectations that world fisheries would plateau at values of around 80 million tons, global catches reported by FAO generally increased through the 1990s - driven largely by catch reports from China.

The huge discrepancy between what is reported and the true state of global fisheries is largely due to misreporting by countries with large fisheries.

Live fish on sale in Guilin, China (Photo courtesy [World Traveler](#))



"Many countries over and under-report their catch statistics, but none has as big an impact as China," explains Pauly. Although Chinese waters cover only one percent of the world's water surface, China accounts for 40 percent of the deviation between reported and corrected.

The study highlights variances in the 1990s of as much as 10 metric tons per square kilometer of ocean of true catch amounts compared to reported amounts for Chinese waters.

"The same state entities devoted to monitoring the economy are also tasked with increasing its output. Our studies showed that whatever leaders set as production targets is what is officially reported. If you dictate fisheries to increase by five percent then it is reported to increase by five percent," Pauly and Watson say.

"Regardless of whodunnit the message here is that our overfishing problems are far more urgent than we even realized," says Andy Rosenberg, Dean of the College of Life Sciences and Agriculture at the University of New Hampshire and the former deputy director of the National Marine Fishery Service.

"It's not a case of, let's gradually phase in some solutions. It's rather more urgent than that. Overfishing is not a just a Chinese problem. We have serious overfishing problems here as does Europe, and we need to come to grips with them as urgently as the Chinese do. This is a global problem, not a case of a few bad actors."

This new picture of the state of the oceans raises serious concerns about the supply of fish and world food supply, and its ability to keep up with a rising world population.

Some governments and industries believe that aquaculture is the solution. But Watson and Pauly warn that it is a fallacy to believe that fish farming can make up the shortfall, and they caution against their results being used to call for more aquaculture.

Salmon farming in Tasmania, Australia's island state. (Photo courtesy [National Museum of Australia](#))



"Aquaculture cannot replace wild seafood because so much farmed seafood relies on wild fish for fishmeal," Watson says. "Currently a third of all fish landed globally goes into fishmeal and oil. Half is used for aquaculture and half is used for agriculture."

"The aquaculture component is increasing rapidly because we are using fishmeal to raise carnivorous fish like salmon. If aquaculture is going to help the situation, you have to raise vegetarian fish - like carp, tilapia and shellfish - and not supplement their food with fish meals or oils," Watson says.

Canadians, particularly British Columbians and residents of the Atlantic provinces, must demand an end to the use of floating net cages in the salmon farming industry, the Vancouver based David Suzuki Foundation said following the release today of a report into salmon farming in British Columbia.

Stuart Leggatt, a former B.C. Supreme Court Justice who just completed an inquiry into the B.C. industry entitled "[Clear Choices, Clean Waters](#)," says pollution and escapes from the net cages which float in the ocean are among the most serious problems with the industry.

"After hearing from almost 200 people, both for and against net cage salmon farming, Commissioner Leggatt has concluded that net cages must be removed from this coast within three years," said Jim Fulton, executive director of the David Suzuki Foundation. Leggatt's findings concur with recommendations from the federal Auditor General and the Senate fisheries committee that Canada must reassess salmon farming.

Bringing a huge trawl net filled with fish aboard a commercial fishing vessel (Photo courtesy Alaska Fisheries Science Center)

Fisheries are the most globalized food industry that exists. Over 75 percent of the world marine fisheries catch - over 80 million tons per year - is sold on international markets.

This means that what happens in one country matters to another.

Many people do not realize the extent to which fish sold in the U.S. are caught elsewhere in the world. "A lot of the fish eaten in the U.S. now are being imported from New Zealand, the Pacific, West Africa and Antarctica," Pauly says. In terms of value the U.S. catches shrimp, sea cucumbers and now even jellyfish, and exports much of it to East Asia."

Pauly hopes that the study will remove what he calls "a psychological weapon" - the distortions in the global reports submitted to the FAO - that industry has used to justify putting out more boats and building bigger trawlers.

"The United Nations' FAO must have a stronger position in the future when negotiating the supply of accurate data from the nations of the world, and those data must be evaluated," he emphasizes. "Fisheries management and economic decisions must be based on the best available data."

"I think the high seas must be managed, not simply watched," Watson says. "We must insist that nations provide statistics that can be verified."