

Learning from cod collapse to save tuna

February 18 2008

Continued mismanagement could force some tuna populations to quickly go the way of cod, a highly threatened fishery that once helped shape economies of whole nations, leading scientists said in the symposium “Last Best Chance for Tuna: Learning from the Cod Collapse” at the American Association for the Advancement of Science (AAAS) Annual Meeting in Boston on February 18.

A group of leading natural and social scientists analyzed the lessons learned from cod and recommended urgent actions to prevent further declines in tuna populations. Organized by World Wildlife Fund (WWF) and the University of British Columbia, the panel included author Mark Kurlansky, Andrew Rosenberg from the University of New Hampshire, Daniel Pauly and Rashid Sumaila of the University of British Columbia, Barbara Block from Stanford University, Rene Subido from RD Fishing Corporation, and Jose Ingles from WWF.

Just as cod was once perceived as Canada’s “Newfoundland currency,” tuna is largely considered the “chicken of the sea”—cheap and plentiful. Where the landed value of cod in Atlantic Canada was at its peak of \$1.4 billion in 1968, it dropped to just \$10 million by 2004. Trends for some tuna species are cause for concern. In 2001, for example, landed value of yellowfin tuna in the Western Central Pacific Ocean was US\$1.9 billion, but three years later it had dropped by more than 40 percent to US\$1.1 billion.

Populations of certain tuna species are falling in both the Atlantic and the Pacific oceans, in some cases despite a host of management

strategies, as with bluefin tuna in the western Atlantic. “Conventional fisheries wisdom did not work for the northwest Atlantic cod and is now failing for tuna in some cases,” said WWF’s Katharine Newman, moderator for the panel. “We need to find solutions that advocate sustainable fishing starting right at the source like the Coral Triangle down to consumers’ plates through MSC certification and public awareness.”

Even after a decade of intense protection, cod populations have not rebounded as fisheries scientists predicted they would. “Does the fault lie in the fishermen, the regulators, or the scientists? Or is the answer to be found in history?” asked Kurlansky. British Columbia’s Pauly proposed that the answer lay in history. “Although we know much about Atlantic cod and bluefin tuna, we have not learned a thing from their history and we may lose them because of that,” he said.

Rosenberg showed what the cod case can teach tuna management by examining the cod case to illustrate how historic and current fishing pressure and the unique characteristics that made cod vulnerable to exploitation contribute to their continued state of depletion.

Innovative research to learn more about these apex predators is being implemented by scientists like Stanford’s Block who fits tuna with data-logging satellite tags or implanted archival tags. “It’s like tossing a computer inside a tuna and hoping that one day you’ll see it again and the memory chip will be filled with tuna days,” she said. Mapping key locations for bluefin tuna may help protect the species escape total population collapse.

From the other side of the world, Jose Ingles of WWF-Philippines spoke about the start of an imminent decline in high value fisheries. Abundant fish aggregating devices are resulting in significant juvenile bycatch, a severe threat to species like bigeye and yellowfin tunas. “This hurts the

economy and impacts the species,” said Ingles. “If juvenile fish are allowed to mature, they would be worth more than \$1.5 billion annually—significantly higher than the \$236 million currently derived from juvenile catch.”

New joint management between juvenile and adult yellowfin and bigeye tuna catching nations could result in millions of dollars for local economies, resulting in win-win outcomes for fish and people, suggests economist University of British Columbia’s Sumaila, “This approach could have prevented the depletion of cod stocks off Newfoundland and such balancing can reduce the chance of a similar fate befalling tuna stocks of the Coral Triangle.”

Scientists hope that tuna populations might yet evade the catastrophic decline that devastated the cod fishery. “This panel discussion can only flag the very real danger that tuna populations face,” said Sumaila “What we need is to use all the diverse lessons we have learned from cod and galvanize global action for the fast-disappearing tuna.”

Source: World Wildlife Fund

Citation: Learning from cod collapse to save tuna (2008, February 18) retrieved 9 April 2024 from <https://phys.org/news/2008-02-cod-collapse-tuna.html>

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