



Rebuilding Pacific Bluefin Tuna

A Science-based Blueprint

Pacific bluefin tuna are in trouble. After decades of overfishing, the population hovers at just 4 percent of its original size, and the unsustainably high catch of juveniles threatens its continued existence. Members of the Western and Central Pacific Fisheries Commission, or WCPFC, and the Inter-American Tropical Tuna Commission, or IATTC, have allowed overfishing of Pacific bluefin for decades and have failed to institute effective management, despite having access to the most comprehensive scientific data and advice available. As a result, the population has dropped 96 percent from its unfished size, according to the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean, or ISC.¹ **Immediate and comprehensive action, including the establishment and implementation of science-based catch limits and a minimum size limit to protect juvenile fish, is needed to allow the Pacific bluefin population to recover.**

As few as 40,000 adult Pacific bluefin tuna remain, according to a recent study.² Fisheries data indicate that a single adult cohort, which includes most of the spawning fish remaining in the population, will soon stop producing new offspring, as it is reaching the end of its natural lifespan.³ Making conditions worse, more than 90 percent of Pacific bluefin are caught as juveniles, removed from the water before they can reproduce and contribute to future generations. Without measures that protect these young fish and allow them to reproduce, the population will not recover.

Fortunately, the blueprint for rebuilding is straightforward. **If strong science-based management measures are adopted immediately, the Pacific bluefin population can recover in the near future.** Like its cousins in the Atlantic and Southern oceans, Pacific bluefin is a remarkable tuna species; unlike its cousins, its biology will enable it to rebuild relatively quickly with some basic management measures. **A Pacific-wide effort that includes catch limits and an appropriate minimum size limit will put bluefin on the road to recovery in as little as three years.**

Bluefin are important to the ocean ecosystem, and they also support fishing industries on both sides of the Pacific. Off of Mexico, large purse-seine vessels catch schools of juvenile bluefin that are then sent to coastal ranches where they are fattened for months until fish and market conditions are ideal for sale. In the western Pacific, fishermen target fish at every life stage—from when they are as small as 1 kilogram to full maturity.

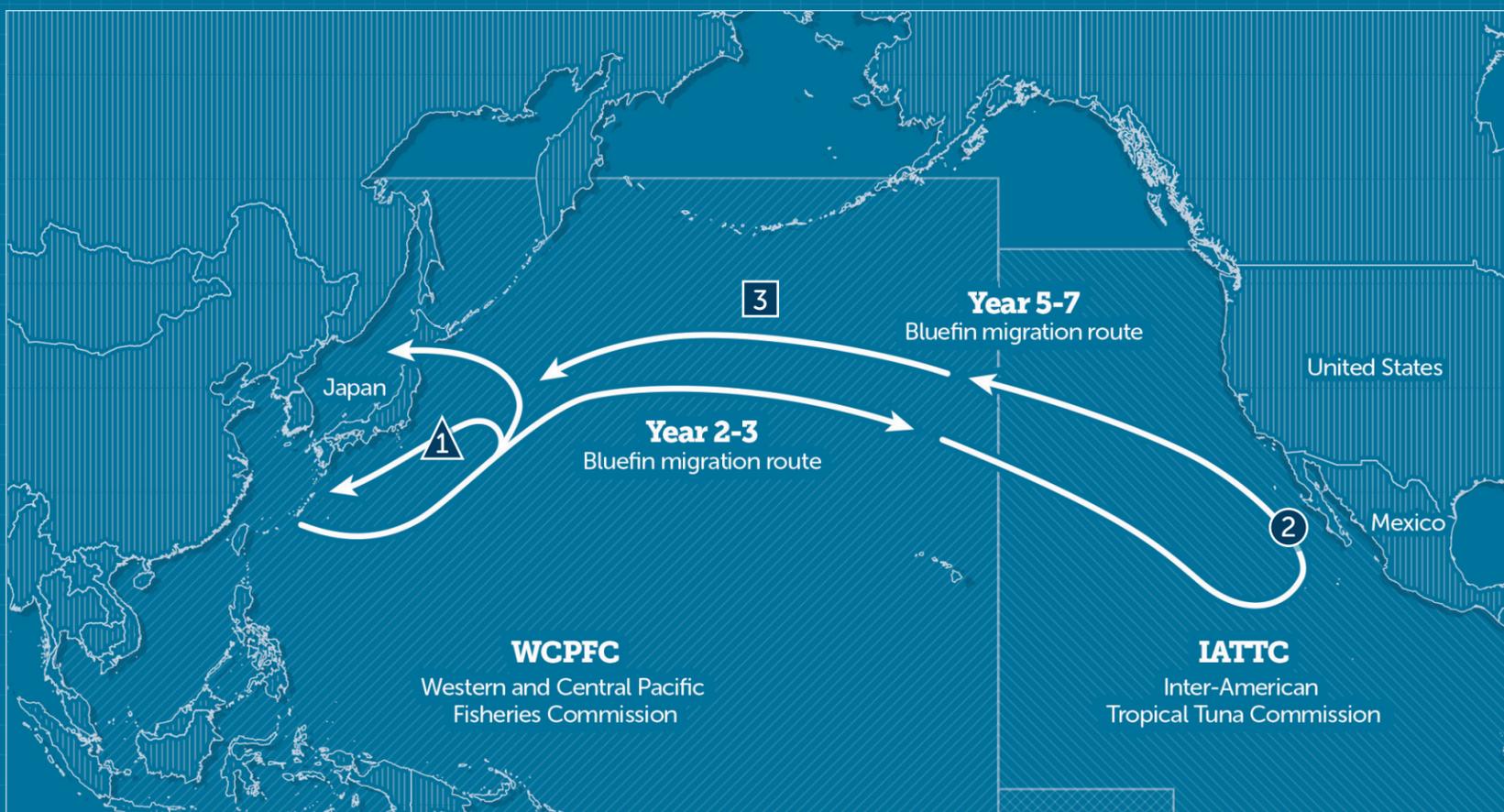
Pacific bluefin, which regularly sell for thousands of dollars per fish, can sometimes go for much more. As part of the traditional first auction of the year, a 230-kilogram (507-pound) Pacific bluefin tuna recently sold in Tokyo for approximately \$70,000 (7.36 million yen),⁴ and in the past, prices have reached as high as \$1.76 million (155.4 million yen).⁵

Pacific bluefin tuna need precautionary science-based conservation and management measures immediately. Turn the page for a science-based blueprint for the population's recovery.

Implementing a Science-based Recovery Plan for Pacific Bluefin Tuna

Increase protections across their range

Pacific bluefin tuna can migrate 10,000 kilometers (6,000 miles). Fishing is managed by the Western and Central Pacific Fisheries Commission and the Inter-American Tropical Tuna Commission.



Source: W. Bayliff, Inter-American Tropical Tuna Commission, "Synopsis of Biological Data on Eight Species of Scombrids" (1980), <http://www.iattc.org/PDFFiles2/SpecialReports/SpecialReport2.pdf>
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A science-based recovery plan

The latest ISC assessment analyzed seven scenarios that included a range of catch levels. Only one of these scenarios predicted a chance of population growth within 10 years under current conditions. Based on this analysis, the WCPFC and IATTC should implement, at the minimum:

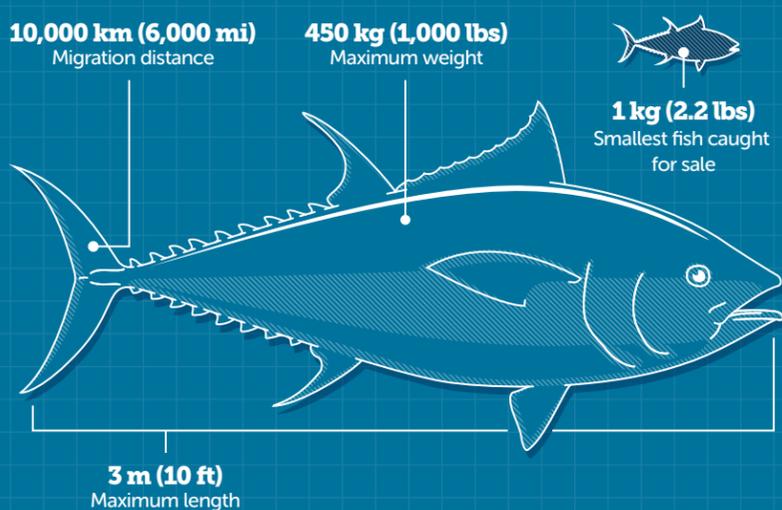
- 1 **A limit on juvenile catch in the western and central Pacific Ocean of no more than 4,570 metric tons**, which corresponds to a 50 percent reduction from the 2002 to 2004 average.
- 2 **A catch limit of no more than 2,750 metric tons in the eastern Pacific Ocean.** The limit should cover all sources of bluefin mortality, including catch of minor harvesters and recreational fishermen.
- 3 **A coordinated, ocean-wide rebuilding plan that returns the spawning population to 155,000 metric tons**, which corresponds to 25 percent of its original size, within 10 years.

Mandate a minimum size

Scientists predict that protecting young bluefin and giving them a chance to spawn will show immediate benefits for the stock. A recent study found that a minimum size limit of 20 kilograms would help protect Pacific bluefin two years old and younger, leading to gains in catch and population in as little as three years.⁶ **With a 20 kilogram minimum size limit, the spawning biomass is predicted to increase by nearly 400 percent within five years.**

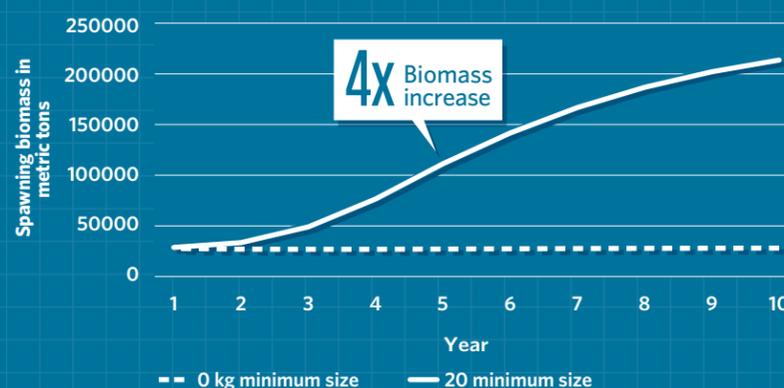
Protect the smallest fish 1 2

More than 90 percent of Pacific bluefin tuna are caught as juveniles before they reproduce.



Minimum size, maximum growth 1 2

A minimum size limit would help protect Pacific bluefin tuna two years old and younger.



Source: T. Gedamke, Western and Central Pacific Fisheries Commission, "Preliminary Analyses of the Potential Impacts of Minimum Weight Regulations for Pacific Bluefin Tuna" (2013), Scientific Committee Ninth Regular Session, WCPFC-SC9-2013/SA-WP-15
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Endnotes

- 1 "Stock Assessment of Pacific Bluefin Tuna" (2014), http://isc.ac.affrc.go.jp/pdf/Stock_assessment/Pacific%20Bluefin%20Assmt%20Report%202014-%20June1-Final-Posting.pdf.
- 2 Assuming 10,000 metric tons of spawning stock biomass and an average adult size of 250 kilograms.
- 3 Inter-American Tropical Tuna Commission, Scientific Advisory Committee, "Stock Status of Pacific Bluefin Tuna and the Urgent Need for Management Action" (May 2014), <http://iattc.org/Meetings/Meetings2014/MAYSAC/PDFs/SAC-05-10a-PBF-stock-assessment-and-management.pdf>.
- 4 Associated Press, "Price of Bluefin Tuna Nosedives at Tokyo Auction" (Jan. 5, 2014), <http://bigstory.ap.org/article/priciest-tuna-cost-down-despite-shrinking-stocks>.
- 5 Associated Press, "Bluefin Tuna Sells for Record \$1.76m in Tokyo" (Jan. 4, 2013), <http://bigstory.ap.org/article/bluefin-tuna-sells-record-176m-tokyo>.
- 6 T. Gedamke, Western and Central Pacific Fisheries Commission, "Preliminary Analyses of the Potential Impacts of Minimum Weight Regulations for Pacific Bluefin Tuna" (2013), Scientific Committee Ninth Regular Session, WCPFC-SC9-2013/SA-WP-15.

Contact: Amanda Nickson, director, global tuna conservation

Email: anickson@pewtrusts.org

Project website: pewenvironment.org/tuna

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