

WESTERN ATLANTIC BLUEFIN TUNA:

How Canada Can Safeguard Its Most Valuable Fish



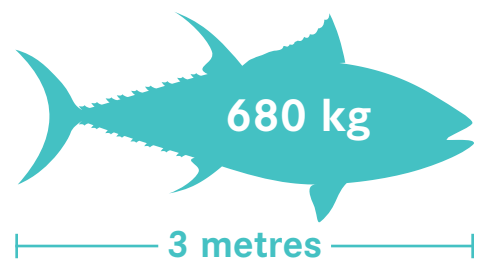
Ecology Action Centre



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Canada holds a **vital role** in determining the fate of western Atlantic bluefin tuna. Bluefin is an important part of eastern Canada's **history, culture** and **economy**, along with playing an important role as a top predator in the Atlantic Ocean. However, the western population is only at 55% of the 1970s levels and is assessed as **endangered** in Canada. While rebuilding may require short-term moderation, it is critical that Canada demonstrate its commitment to using a precautionary, **science-based** approach to Atlantic bluefin tuna management to ensure the **long-term health** of the western population and all that depend on it.

BLUEFIN TUNA: GIANTS OF THE OCEAN



The western Atlantic bluefin tuna is one of the fastest-swimming and largest fish in the ocean. Bluefin tuna can grow to up to 680kg (1,500lbs) and reach 3 metres (10 feet) in length.¹ The largest bluefin tuna ever recorded was caught in Canada in 1979.² They are open-water or “pelagic” fish that can reach speeds upwards of 60km/h (37mph) and dive to depths of more than 1,000 meters (3,200ft)³ thanks to their sleek, torpedo-shaped bodies. As top predators, they feed primarily on mackerel, herring, squid and capelin.

IMPORTANT SEASONAL CANADIAN VISITORS



Bluefin from the western Atlantic population—whose only known spawning ground is the Gulf of Mexico—migrate to eastern Canadian waters in the summer and return south in late fall. The bluefin that travel north to feed in Atlantic Canada’s productive waters are the “giants,” the largest and most fertile members of the population. While bluefin tuna can live to be 40 years old, it takes these iconic fish up to 10 or more years to mature.⁴ Since they take longer to reach sexual maturity than most fish species, there is a high probability they will be caught before they are able to spawn. This makes them especially vulnerable to overfishing. The Canadian bluefin fishery, particularly in the Gulf of St. Lawrence, not only targets these giants but it is the only country in the world to do so.

DOMESTIC BLUEFIN TUNA MANAGEMENT

Canada has committed to managing fisheries based on the precautionary approach through both national policies and as a Party to the 1995 United Nations Fish Stocks Agreement.⁹ The Department of Fisheries and Oceans (DFO) manages fish—a public resource—on behalf of the Canadian people. The bluefin tuna fishery, like all Canadian fisheries, is regulated domestically under the Fisheries Act. All harvested fish require an Integrated Fisheries Management Plan (IFMP), which outlines management measures and Total Allowable Catch (TAC). DFO has not updated the IFMP for bluefin since 2008 and does not make any version publicly available, which makes it challenging to assess Canadian bluefin management measures beyond those measures agreed to internationally through the International Commission for the Conservation of Atlantic Tunas (ICCAT).

While most bluefin in the region are from the western population, eastern Atlantic bluefin tuna from the Mediterranean Sea also come to feed in Canadian waters, particularly off the Atlantic coast of Nova Scotia.

The fishing season for bluefin tuna is timed with migration, and generally occurs between July and November.⁵ Canada’s commercial Atlantic bluefin tuna fishery is comprised of more than 750 licensed harvesters and is worth an estimated \$10 million annually.⁶ Most of this is caught by individual fishers using rod and reel, although some is also caught as bycatch in the swordfish pelagic longline fishery.

A recreational fishery, which involves the live release of tuna, has also recently emerged in the Gulf of St. Lawrence. In 2012, the fishery was valued at approximately \$1.8 million.⁷ According to a recent report, this fishery appears to be growing and has the potential to offer additional revenue to bluefin fishermen while resulting in a significantly lower post-release mortality rate—roughly 5%—and therefore has a much lower impact on the population.⁸ The report suggests that the live-release fishery has the potential to bring in almost 6 times higher revenue on a tonne per tonne basis than the commercial bluefin fishery.

Atlantic bluefin tuna is currently going through a review for listing on Canada’s Species at Risk Act (SARA). The Committee on the Status of Endangered Wildlife in Canada (COSEWIC), an independent science body responsible for advising the federal Environment Minister under SARA, concluded that bluefin tuna underwent a dramatic decline within only three generations. Based on this decline, COSEWIC has advised the Environment Minister that bluefin tuna should be listed as endangered under SARA, which would afford the species special protection. The public consultation for bluefin tuna was completed in 2012. The Minister of Fisheries and Oceans is considering the information and has said that she will make the final listing decision by 2015.

CANADA AND ICCAT

Due to the highly migratory nature of bluefin tuna, the species is not managed by Canada alone. ICCAT is a group of 49 member governments, and includes those countries that have quota to fish for Atlantic bluefin. ICCAT is tasked with maintaining tuna populations at levels that will support maximum sustainable catch. The amount of Atlantic tuna (including bluefin) that each of the members can catch is negotiated at ICCAT. Catch levels are informed by a body of ICCAT scientists who assess the status of stocks under ICCAT jurisdiction and make recommendations to member governments; however scientific advice has not always been followed. The quota for western Atlantic bluefin tuna, set by ICCAT, is shared by Canada, USA, Japan, Bermuda, St. Pierre and Miquelon, and Mexico.¹⁰

Canada was among the first contracting parties when the treaty that established ICCAT was signed in 1966 and, until recently, had been considered a leader in precautionary bluefin tuna management. Canada remains an influential party within ICCAT decisions and holds 23% of the western Atlantic bluefin tuna quota (as well as quota transfers from other countries). In 2013, Canada was allocated 381.66 tonnes from ICCAT, in addition to securing another 86.5 tonnes of quota transferred from Mexico, 4 tonnes from St. Pierre et Miquelon (France) and 15 tonnes of bycatch quota for a total allocation of 483.16 tonnes (487.16t with France), out of the total western Atlantic bluefin quota of 1,750 tonnes.¹¹

In 2012, Canada unsuccessfully attempted to increase the total quota for bluefin tuna at ICCAT. This attempt was made in spite of the fact that the population was under consideration for listing as an endangered species under SARA and the population was very depleted.

While Canada did not actively seek a quota increase in 2013, Canada may attempt to get an increase in quota in 2014, including possibly additional quota for scientific use. Under this scenario, it would use the revenue generated from additional tuna sales to offset the costs of research. As ICCAT scientists have recommended in their updated management advice, it is critical that any scientific research quota is included within a TAC that is consistent with the scientific advice.¹² This will ensure that it does not put additional pressure on the stock by increasing harvesting.

THE STATUS OF WESTERN BLUEFIN TODAY

Unfortunately, bluefin tuna populations have had a long history of overexploitation. In 1998, ICCAT adopted a 20-year rebuilding plan for western Atlantic bluefin tuna after efforts up to that point had failed to rebuild the population and instead led to further declines. Now, 15 years into this plan, the population is still just 55% of the 1970 level (by which point bluefin had already been significantly depleted).¹³ The western stock has not been able to rise above these low levels for three decades, in part because managers have agreed to increase exploitation when there was evidence of population growth four different times since the 1970s, essentially erasing progress on recovery.

In 2011, ICCAT reduced the quota of western Atlantic bluefin tuna to 1,750 tonnes, and has since maintained the quota at this level in accordance with the scientific advice. The latest stock assessment results suggest that this stability in management is resulting in measurable growth in the population, though the degree of growth is still highly uncertain.

More specifically, ICCAT scientists warn that new growth estimates might be artificially inflated and not reflect actual western population increases. When scientists remove the data they consider questionable, the situation looks much less positive. The first problem is that scientists could be mistakenly

counting eastern bluefin tuna as western fish given that eastern fish come west to feed and are caught by western fishermen. Since the eastern population has grown significantly, it may be leading to overly positive estimates in the west. The second problem is that the abundance indices from the Gulf of Saint Lawrence might not be biologically plausible, according to scientists.¹⁴ While fishermen and scientists have confirmed increases in bluefin tuna reaching the Gulf, changes in management and fishing patterns have undermined the reliability of these indices in scientific assessments and the increases may not reflect a surge in the abundance of the population as a whole.



Ray Plourde (EAC)

A SCIENCE-BASED APPROACH TO RECOVERY

In their advice for the 2015 fishing year, ICCAT scientists say that catches of less than 2,250 tonnes have only a 50% chance of increasing or maintaining the population. This leaves a 50% chance that catches of less than 2,250 tonnes will lead to population decline and potentially a failure to rebuild. Further, the report “cautions that the conclusions from the assessment do not capture the full degree of uncertainty in the assessment and projections”.¹⁵

The report goes on to say that keeping the quota at 1,750 tonnes will allow the population to increase more quickly, help to reduce some of the uncertainty with stock assessment models and help to resolve the recruitment debate.¹⁶

Given the large uncertainties surrounding the 2015 science advice, and the opportunity to allow the western population of bluefin tuna to continue to rebuild, a quota at the status quo of 1,750 tonnes for the western stock offers a better chance for continued population recovery.

In addition, management action taken for the eastern stock is likely to influence recovery of western tuna. ICCAT scientists have stated that the productivity of both the western and eastern Atlantic bluefin tuna fisheries is linked to the eastern Atlantic and Mediterranean stock.¹⁷ Therefore, it is in the interest of countries fishing for the western stock to

*Maintaining the quota of **1,750 tonnes** offers a better chance for continued population recovery.*

support the more precautionary eastern management advice, which is to maintain the eastern quota (13,400 mt) for 2015, to ensure that the population continues to rebuild. Even small rates of mixing from east to west can have considerable effects on the west due to the fact that the eastern resource is much larger than that of the west.

WHAT CANADA CAN DO TO REBUILD THE STOCK

- Renew its commitment to the precautionary approach;
- Maintain the quota at 1,750 tonnes for the 2015 and 2016 fishing seasons, in line with the scientific advice until the overhauled stock assessment model is in place and uncertainty is addressed;
- Support maintaining the eastern bluefin quota at 13,400 t, in line with the precautionary bound of the scientific advice;
- Support the catch-and-release recreational bluefin tuna fishery, which has the potential to bring in higher revenues, on a tonne per tonne basis, to fishers than the commercial fishery;
- Involve the public, including civil society groups, in discussions regarding Atlantic bluefin tuna management, domestically and internationally; and
- Update the 2008 outdated bluefin tuna IFMP so that it takes into account the best available precautionary science, and make the IFMP publicly available.

In order to **continue to benefit** from this iconic species, Canada must play its part in rebuilding the western Atlantic bluefin tuna stock. To this end, Canada should support **maintaining the current catch limits**, for both the western and eastern populations, to allow for continued growth in the populations and improved chance of recovery for the species.



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¹ Atlantic Bluefin Tuna, National Geographic: <http://animals.nationalgeographic.com/animals/fish/bluefin-tuna/>

² IGFA World Record | All Tackle Records | Tuna, Bluefin, International Game Fish Association: <http://wrec.igfa.org/WRecordsList.aspx?lc=AllTackle&cn=Tuna,%20bluefin>

³ Atlantic Bluefin Tuna, International Commission for the Conservation of Atlantic Tunas: http://www.iccat.int/Documents/SCRS/ExecSum/BFT_EN.pdf

⁴ Report of the 2012 Atlantic Bluefin Tuna Stock Assessment Session, International Commission for the Conservation of Atlantic Tunas: http://www.iccat.int/Documents/Meetings/Docs/2012_BFT_ASSESS.pdf

⁵ COSEWIC Assessment and Status Report on the Atlantic Bluefin Tuna in Canada, Committee on the Status of Endangered Wildlife in Canada: http://publications.gc.ca/collections/collection_2012/ec/CW69-14-630-2011-eng.pdf

⁶ Bluefin Tuna, Fisheries and Oceans Canada: <http://www.dfo-mpo.gc.ca/international/facts-faits/tuna-thon-bluefin-eng.htm>

⁷ Reeling in Revenue: Opportunities to Increase the Value of Atlantic Bluefin and Support Recovery Through the Live-Release Fishery: <https://www.ecologyaction.ca/reelinginrevenue>

⁸ The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, The United Nations Oceans & Law of the Sea: http://www.un.org/depts/los/convention_agreements/convention_overview_fish_stocks.htm

¹⁰ Bluefin Tuna – Atlantic Canada, Fisheries and Oceans Canada: <http://www.dfo-mpo.gc.ca/decisions/fm-2012-gp/atl-037-eng.htm>

¹¹ Recommendation By ICCAT Amending The Supplemental Recommendation By ICCAT Concerning The Western Atlantic Bluefin Tuna Rebuilding Program <http://www.iccat.es/Documents/Recs/compendiopdf-e/2013-09-e.pdf>

¹²⁻¹⁷ ICCAT Report on the Standing Committee on Research and Statistics 2014 http://www.iccat.es/Documents/Meetings/Docs/2014-SCRS-REP_ENG.pdf