FISHERY AUDIT

2020

UNLOCKING CANADA'S POTENTIAL FOR ABUNDANT OCEANS

OCEANA Protecting the World's Oceans

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Oceana Canada's fourth annual *Fishery Audit* assesses the current state of Canada's fisheries and fisheries management, tracks annual progress and provides recommendations for the year ahead to meet federal policy commitments to restore abundance to Canada's oceans.

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2020

EXECUTIVE SUMMARY

CANADA'S BLUE ECONOMY: A GROWTH OPPORTUNITY TO BENEFIT PEOPLE AND THE PLANET

"At the current rate, it will take 37 years before Canada has developed plans for rebuilding all our critically depleted fish populations."

— Josh Laughren, Executive Director, Oceana Canada.

As our country recovers from the financial impacts of COVID-19, ocean resources can play an essential role in economic rebuilding and sustainable growth. Canada's "blue economy" provides hundreds of thousands of jobs, often in communities with few other employment options. A healthy blue economy starts with healthy numbers of wild fish.

Fish and fishing have always been the foundation of the ocean economy. Abundant oceans provide economic stability to communities and food for an increasingly hungry world. That means rebuilding fish populations is good for the environment and the economy.

But Oceana Canada's annual audits show the state of Canada's fisheries continues to worsen.

This marks yet another year of decline since the first *Fishery Audit* in 2017, despite new investments in science and management. Today, only a quarter of Canada's fish populations can confidently be considered healthy, and we're seeing troubling decreases in crustaceans such as shrimp and crab that drive so much of Canada's fishing revenues. We're also seeing declines in the small fish such as capelin, herring and mackerel that are prey for seabirds and whales, as well as many commercially important fish, such as cod and tuna.

There are many reasons for these unsustainable trends. Canada continues to overfish critically depleted stocks, many of which are now even more vulnerable as a result of climate change. Too many fisheries management decisions focus on avoiding difficult choices in the short term, causing even more hardship down the road. Meanwhile, efforts to help rebuild populations have stalled, with no new rebuilding plans released in 2020.

We have seen some positive developments. Over the past four years, the federal government has restored fisheries science funding, improved the transparency of fisheries data, greatly increased the amount of marine habitat protected and introduced a national Fishery Monitoring Policy. The modernized *Fisheries Act*, which became law last year, now requires a plan to rebuild depleted fish stocks.

All of this is very encouraging. However, laws and policies are only effective if they are implemented. We can't enforce *Fisheries Act* regulations that don't exist. We can't rebuild depleted fisheries without an effective plan. And we can't set sustainable quotas based on just part of the picture of what's actually caught.

To date, Fisheries and Oceans Canada (DFO) has failed to follow through on many of the federal government's breakthrough commitments. In the year ahead, DFO must tackle the growing gap between the intent of laws and policies and the real-world actions on the water.

That means creating regulations to bring into force the new *Fisheries Act* provisions, including identifying major stocks and requiring targets and timelines for rebuilding plans. It means implementing the Fishery Monitoring Policy introduced in November 2019 and making science-based quota decisions that reflect accurate catch numbers from all sources, including recreational fishing and unintended catch. And it means developing and implementing rigorous rebuilding plans for critically depleted stocks.

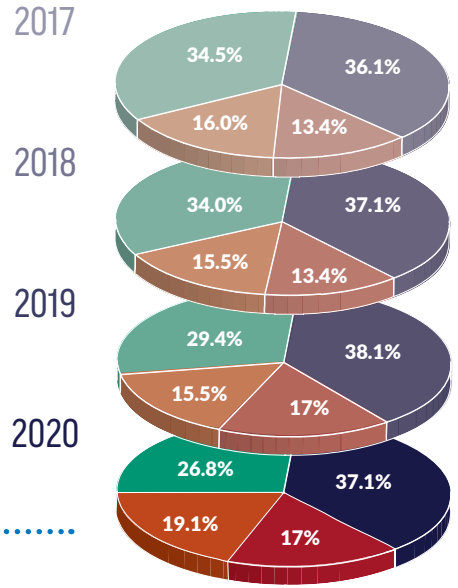
Canada has an opportunity to think about the future we want — and need — as we set a path to recovery for our resource-rich nation. Failure to act now risks squandering the hundreds of millions of dollars of recent federal government investments to improve fisheries management. It would also mean losing out on the massive long-term potential of the original blue economy — wild fish — to support our planet and the future of coastal communities.

THE 2020 SCORECARD

Overall Stock Health Status

Continuing Declines in Healthy Stocks

A healthy planet and thriving seafood industry require abundant oceans. Unfortunately, Canada's fisheries are trending in the wrong direction. Four years after Oceana Canada's first *Fishery Audit*, fewer stocks are considered healthy and more are depleted. And despite investments in fisheries science, Canada continues to lack enough data to judge the health of more than a third of fish stocks.



HEALTHY CAUTIOUS CRITICAL UNCERTAIN

Sustainable fisheries require good science, monitoring and management. This *Fishery Audit* takes a deep dive into each of these areas, examining key indicators to determine how well our country's fisheries are being managed — and where improvements need to be made.

Science

Data Gaps Persist

Good management decisions rely on good data, but progress on most indicators stalled in 2020. The notable exception was natural mortality estimates, which continued to see a substantial increase. However, the number of DFO science publications released on time dropped significantly.

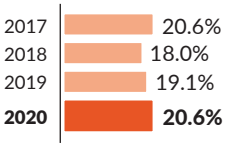
STOCKS WITH SUFFICIENT DATA TO ASSESS THEIR HEALTH STATUS

STOCKS WITH RECENT BIOMASS ESTIMATES

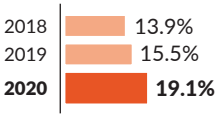
STOCKS WITH LIMIT REFERENCE POINTS ESTABLISHED

STOCKS WITH UPPER STOCK REFERENCES ESTABLISHED

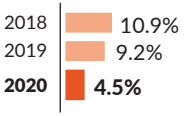
STOCKS WITH FISHING MORTALITY ESTIMATES



STOCKS WITH NATURAL MORTALITY ESTIMATES*



SCIENCE PUBLICATIONS RELEASED ON TIME*



*New indicator in 2018.

Monitoring

Adequate Measures in Place

To determine sustainable harvest levels, fishery scientists and managers rely on monitoring. Logbooks, dockside or at-sea monitoring, or a combination of the three, make it possible to estimate how much of each species is caught and how much is discarded. Although targeted monitoring levels in Canada are reasonably high, there are still large knowledge gaps and room for improvement. If DFO's Fishery Monitoring Policy is effectively implemented, it will fill important gaps and ensure dependable and timely data is being consistently collected to support sustainable fisheries.

SOME LEVEL OF AT-SEA OR ELECTRONIC MONITORING

SOME LEVEL OF MANDATORY LOGBOOKS

SOME LEVEL OF DOCKSIDE MONITORING

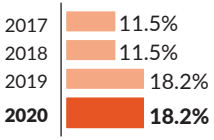
Management

No Progress to Rebuild Critical Stocks

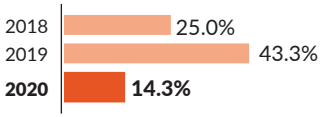
Currently, 91 per cent of Canada's fish stocks are included in Integrated Fisheries Management Plans (IFMPs). All fisheries are supposed to have IFMPs to provide the framework for conservation and sustainable use. In addition, critically depleted stocks require rebuilding plans. However, the number of critically depleted stocks with rebuilding plans remains very low, with little improvement over the past four years, and the few plans that have been released lack the rigour needed to make them effective. When it came to completing work plan deliverables in 2020, DFO fell far short — delays that were already evident prior to the COVID-19 pandemic.

STOCKS INCLUDED IN INTEGRATED FISHERIES MANAGEMENT PLANS

CRITICAL STOCKS WITH REBUILDING PLANS



DFO WORK PLAN DELIVERABLES COMPLETED*



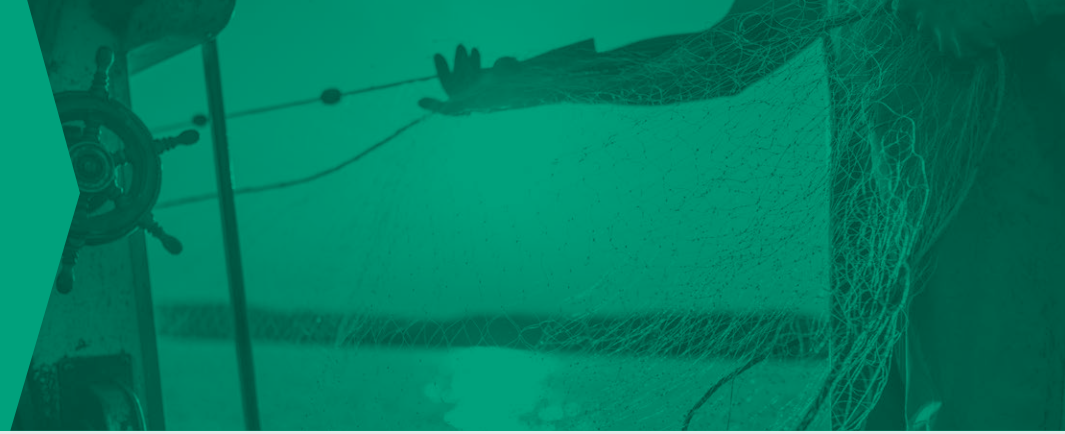
*New indicator in 2018.

Credit: iStock/shaunl

This report focuses exclusively on Canada's marine fisheries. This includes finfish, shellfish and other invertebrates but not freshwater fish or fish, like salmon, that spend part of their life in freshwater. The data represented in this report is from July 2, 2019, to July 1, 2020.

FISHERY AUDIT 2020:

HOW WELL ARE CANADA'S FISHERIES MANAGED?



Many stocks are still not being managed in compliance with DFO's own policies and commitments.

The numbers tell the story. Yet, global best practices and DFO's own policies are clear about what is needed to rebuild stocks and ensure healthy fisheries for generations to come:

- **Sound science** to understand how healthy stocks are today and how different factors will affect them in the future;
- **Effective monitoring** to determine how many fish are harvested and discarded each year; and
- **Good management decisions** based on data that prioritize long-term health and abundance over short-term and dwindling profits.

Canada's performance is assessed using indicators of good fisheries management developed from globally accepted best practices and from DFO's policy framework based on data from 194 index stocks† published on DFO websites.

For full details of the methodology and analysis, visit oceana.ca/FisheryAudit2020.

Overall assessment: **33 Stocks in Critical Condition, 72 Uncertain**

The health of Canada's fisheries is getting worse. In 2020, Oceana Canada's assessment revealed that just over a quarter (26.8 per cent) of them could be considered healthy, a drop of almost eight percentage points since 2017. There has been no improvement in the status of the most precarious fisheries: 33 stocks remain critically depleted, unchanged from last year and up from 26 in 2017.

There have also been troubling changes in the composition of critically depleted stocks over the last four years. An increasing number of invertebrate stocks in both the Atlantic and Pacific are now in the critical zone. In the Atlantic, the number of critically depleted forage fish stocks (species that serve as food for other fish) rose to four, and there are no longer any healthy forage fish stocks in Canada's Pacific Ocean. This will have serious repercussions throughout the ecosystem, given the complex food webs that are dependent on these species.

Canada continues to allow commercial fishing on critically depleted populations — including some cod stocks, a shrimp and a snow crab stock and several forage fish. Meanwhile, data is missing for more than a third of stocks, making it difficult to assess their health or evaluate fishery management decisions. That means DFO, industry and other stakeholders are making decisions about 72 stocks without adequate information or reference points.

† The *Fishery Audit* index stock list (194 stocks) was created for the 2017 *Fishery Audit* and is based on marine fish and invertebrate stocks included in Oceana Canada's report, *Canada's Marine Fisheries: Status, Recovery Potential and Pathways to Success*, combined with those included in the first public release of the DFO's Sustainability Survey for Fisheries and any stocks with newly available information from government reports that year. Further details are available at oceana.ca/FisheryAudit2020.

Healthy, Cautious and Critical

DFO has three categories of fish stock health. They are defined relative to the maximum sustainable yield (MSY): the largest amount of fish that can be theoretically harvested without reducing the size of the population over the long term.

HEALTHY

A stock is considered healthy if its biomass is greater than 80 per cent of MSY. When a stock is in this zone, fisheries management decisions are designed to **keep it healthy**.

CAUTIOUS

A stock falls in the cautious zone if its biomass is between 40 and 80 per cent of MSY. If a stock falls into this zone, harvesting rates should be reduced to avoid seriously depleting it and to **promote rebuilding** to the healthy zone.

CRITICAL

A stock falls in the critical zone if its biomass is less than 40 per cent of MSY. If a stock moves into the critical zone, serious harm is occurring and **conservation actions** become crucial.

Change in Health Status from 2019

This year brought several success stories. The health of five stocks improved, including yelloweye rockfish outside Vancouver Island, which moved from critical to healthy. Unfortunately, more populations shifted the other way. Nine stocks were at greater risk in 2020, including a sidestripe shrimp stock in the Pacific region (SMA 16), which moved from healthy to critical.

Nine stocks at greater risk in 2020

HEALTHY → CAUTIOUS	Intertidal clams, North coast[‡] Pacific herring, Strait of Georgia Sidestripe shrimp, Fraser River SMA Striped shrimp, Eastern Assessment Zone
HEALTHY → CRITICAL	Sidestripe shrimp, SMA 16
CAUTIOUS → CRITICAL	Atlantic herring, Scotian Shelf/Bay of Fundy (NAFO 4VWX) Atlantic cod, NAFO 3Ps Northern/pink shrimp, Prince Rupert District SMA Northern/pink shrimp, SMA 14

Five stocks at reduced risk in 2020

CRITICAL → CAUTIOUS	Pacific herring, Prince Rupert District Sidestripe shrimp, SMA 14 Snow crab, Scotian Shelf (NAFO 4X)
CRITICAL → HEALTHY	Yelloweye rockfish, outside population[§]
CAUTIOUS → HEALTHY	Northern shrimp, Scotian Shelf (SFAs 13–15)

SMA = Shrimp Management Area; SFA = Shrimp Fishing Area
NAFO = Northwest Atlantic Fisheries Organization management areas

[‡] (i.e., Haida Gwaii razor clams)

[§] The yelloweye rockfish outside (of Vancouver Island) population recently underwent a science advisory process evaluating potential rebuilding strategies. All the operating model scenarios assessed in this process implied that the stock is currently above 40 per cent of the maximum sustainable yield, even though the spawning stock biomass declined rapidly by 49–71 per cent in the north and by 57–79 per cent in the south over the past two generations.

Science Indicators

Progress Stalled; Data Gaps Spell Danger

The better the data that fisheries managers have, the better the decisions they can make. And when science information is produced in a timely way and is made publicly available, it supports transparent decision making, allowing Canadians to have increased confidence in how our fisheries and oceans are managed.

To track Canada's progress in improving fish stock health, Oceana Canada uses a set of key science indicators that are consistent with DFO policy guidelines.

INDICATOR:

Stocks with sufficient data to assign health status

Purpose: Allow scientists to make robust estimates of how many fish are in the water and assign stock heath status.

DATA GAP

72 stocks don't have sufficient data to assign them a health status.

INDICATOR:

Stocks with recent biomass estimates

Purpose: Help managers make decisions based on recent estimates[Δ] of how many fish are in the water.

INDICATOR:

Stocks with reference points established

Purpose: Allow managers to assess whether a stock is in healthy, cautious or critical condition, set the appropriate harvest levels and gauge the success of management measures.

Limit reference point

Upper stock reference

An **upper stock reference** (USR) identifies the boundary above which a fishery can be considered healthy, while a **limit reference point** (LRP) identifies the boundary below which it can be considered to be in a critical state. Ideally, corrective action should be taken before a stock reaches the limit reference point.

DATA GAP

A third of stocks still lack limit reference points, and more than half lack upper stock references.

GOVERNMENT COMMITMENT:

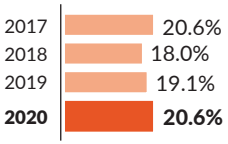
DFO committed to developing limit reference points for all major commercial stocks. However, in 2020 the percentage of stocks with LRPs hardly changed, while the percentage with USRs crept up just a single percentage point. Without these crucial benchmarks, DFO can't assess stock health or set targets for rebuilding depleted stocks. Under DFO's Precautionary Approach framework, fisheries managers can't use a lack of information as an excuse for inaction. Instead, they must move forward using the best data available.

[Δ] Within the last five years.

INDICATOR:

Stocks with fishing mortality estimates

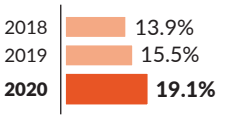
Purpose: Help determine the rate of fish removal and sustainable fishing limits.



INDICATOR:

Stocks with natural mortality estimates*

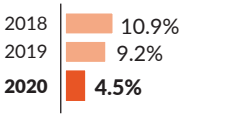
Purpose: Help make better fisheries management decisions by determining the rate at which fish naturally die.



INDICATOR:

Science publications released on time*

Purpose: Help support transparent decision making by providing the most up-to-date information publicly available.



*New indicator in 2018.

Credit: iStock/RLSPHOTO

REDFISH REBOUNDING

Given a chance, depleted fish populations can come back. For example, after many years in the critical zone due to overfishing in the early 1990s, deepwater redfish in the Gulf of St. Lawrence recently increased to historically high abundance. This is because of an unexpected boom in juvenile survival from 2011 to 2013, and these redfish are now approaching sexual maturity. To make the most of this opportunity for redfish and for the Gulf of St. Lawrence ecosystem, strong science is essential.

In 2018, DFO established an experimental research fishery to explore ways for harvesters to target the more-abundant deepwater redfish and avoid the less-abundant Acadian redfish. It is also helping to determine how many of each species are being caught and identifying ways to reduce impacts on small redfish, depleted species and sensitive habitats. The results of this research must inform the rules of a management plan to ensure a sustainable fishery and continue this comeback story.

According to government expectations outlined in its policies, decision-making processes should be open and transparent, and the public should have access to scientific findings and advice as early as possible. However, less than five per cent of DFO's scientific publications were released on time.

"We can't help heal the ocean unless we know what is happening there and how it affects us, making research key to unlocking the potential for abundant marine life."

— Dr. Boris Worm, Killam Research Professor, Dalhousie University and Oceana Science Advisor

Catch Monitoring Indicators

New Policy Could Mean Better Data

Knowing how many fish are being caught every year is crucial to making good decisions about how to manage fisheries and rebuild critically depleted stocks. Most of Canada's marine stocks have some level of catch monitoring in place, through logbooks, at-sea monitoring, dockside monitoring or a combination of these tools. Each monitoring tool has a different purpose, and not all fisheries require 100 per cent coverage with each tool. Combined, monitoring programs should provide dependable and timely data to support sustainable fisheries management. Today it is difficult to determine what proportion of the catch is monitored and whether it includes bycatch (unintended catch). If DFO's new Fishery Monitoring Policy is implemented in a timely and rigorous way, it can help fill these gaps.

DATA GAP

In 2020 none of the Integrated Fisheries Management Plans Oceana Canada examined included specific and measurable catch monitoring objectives, despite the requirements of the new Fishery Monitoring Policy.

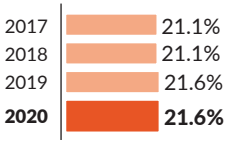
INDICATOR:

Stocks with fisheries that have catch monitoring in place

Purpose: Help prevent overfishing, control bycatch and collect scientific information for stock assessments.

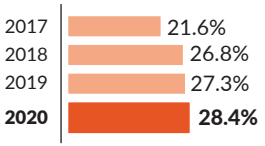
Some level of at-sea or electronic monitoring

At-sea or electronic monitoring with 100% coverage



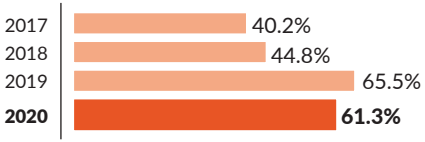
Some level of mandatory logbooks

Mandatory logbooks that record the entire catch



Some level of dockside monitoring

Independent dockside monitoring of 100% of landings



GOVERNMENT COMMITMENT:

In November 2019, DFO released a Fishery Monitoring Policy, providing long-overdue national standards that clearly lay out expectations for catch monitoring objectives, methods to determine the types of tools used and the level of monitoring required. If this policy is effectively implemented, it has the potential to close data gaps that have left too many fisheries to be managed in the dark. The policy is also necessary to ensure compliance with Canada's new *Fisheries Act* — which now makes rebuilding fish populations the law — since rebuilding plans can only be as strong as the data that informs them. This marks an important step toward sustainably managing Canada's fisheries. But to see an impact on the water, the federal government must act immediately to implement this policy.

MACKEREL DATA MISSING

Atlantic mackerel in NAFO subareas 3+4 have been critically depleted since 2011. DFO committed to publishing a rebuilding plan for Atlantic mackerel in 2020 but lacks the data required to set appropriate catch limits and harvest strategies. That's because until this year, bait fisheries have not been required to report catches and recreational catches continue to go unreported. Together, they are suspected to total thousands of tonnes a year of mackerel not included in the catch limit.

These are the kinds of gaps that must be addressed by implementing the Fishery Monitoring Policy.


Credit: iStock/shaunl

"Fishers want to be able to trust what everyone else is putting down — that there's a level playing field. There shouldn't be any groundfish trawl trips without at least electronic monitoring on board."

— Bruce Turris, Executive Manager, Canadian Groundfish Research and Conservation Society

Management Indicators

More Rebuilding Plans Required

Integrated Fisheries Management Plans (IFMPs) are key tools for successful fisheries, outlining how they will be managed for a given period of time. Today, progress has been made, with more than 90 per cent of all stocks being included in an IFMP. But stocks in the critical zone need more. Since 2009, federal policy states it promotes growth by requiring plans to rebuild critically depleted stock, specifying the objectives, timelines and conservation measures. Over the past year, DFO failed to release any rebuilding plans, despite commitments to complete and publish plans for Atlantic mackerel and the repeatedly delayed plan for northern cod. That leaves more than 80 per cent of critically depleted stocks with no plan in place to support their recovery.

INDICATOR:

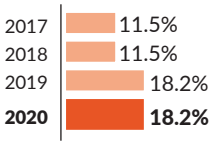
Stocks included in Integrated Fisheries Management Plans

Purpose: Provide a planning framework for the conservation and sustainable use of Canada's fisheries, clearly outlining how a fishery will be managed over a given period.

INDICATOR:

Stocks in the critical zone with rebuilding plans in place[1]

Purpose: Provide a planning framework to rebuild stocks out of the critical zone. Serious harm is occurring to stocks in the critical zone and conservation actions are crucial.



[1] The Atlantic mackerel rebuilding plan was published November 6, 2020, (after the July 1 deadline for the data in this report). The plan lacks the timelines and targets needed to rebuild the stock to healthy levels.

GOVERNMENT COMMITMENT:

DFO has committed to develop and release Integrated Fisheries Management Plans for all major stocks.

WHY REBUILDING PLANS MATTER

For five hundred years, Newfoundland and Labrador's northern cod supported a lucrative, sustainable fishery. With the right management, it could again. However, nearly three decades after the stock collapsed, DFO has still not completed a rebuilding plan, leaving northern cod without safe harvesting limits or a clear path back to healthy levels.

This has made critically depleted fish even more vulnerable. In 2019, northern cod showed a slight increase in biomass of four per cent. DFO responded by increasing the quota to 12,350 tonnes — a jump of 30 per cent — contrary to scientific advice and the government's own policy. This year, DFO maintained the same dangerously high catch level set the year before, on a stock supposedly under moratorium to commercial fishing.

"Keeping the northern cod quota at this unsustainably high level allows us to continue irresponsible fishing pressure on a population that is deep in the critical zone. We all want to see cod populations grow. We need to be patient — you can't fish your way out of this kind of biological debt."

— Dr. Robert Rangeley,
Director of Science, Oceana Canada

“ In the last decades of the 20th century, Canada’s oceans lost 50 per cent of the total amount of fish by weight due to overfishing. Much of the historic abundance that sustained Indigenous Peoples since time immemorial has been lost in just one generation. ”

— Roger Augustine, Assembly of First Nations Regional Chief NB/PEI

Credit: iStock/ifish

Credit: iStock/RyersonClark

ARE CANADA'S FISHERIES PREPARED FOR CLIMATE CHANGE?

The short answer: No. On top of all the human activities affecting Canada's fisheries, the impacts and disruption caused by climate change are accelerating. In the face of these changes, DFO urgently needs to assess species vulnerability and adapt to this new reality. By doing so, healthy and resilient stocks will be in a better position to withstand warming, acidification, changing distributions of predators and prey and other effects of climate change.

Work Plan Deliverables

Failing to Deliver

Over the past year, no new rebuilding plans were released and only 20 per cent of the expected IFMPs were completed. While the arrival of COVID-19 undoubtedly contributed to some delays, progress on this front has been dishearteningly slow for many years.

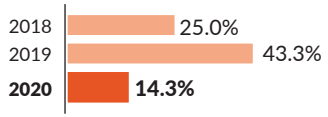
On a positive note, the federal government created a webpage where Canadians can see DFO's annual work plans (now called Sustainable Fisheries Framework Work Plans),[ᶜ] along with annual reports of which deliverables were achieved. This is a significant improvement in transparency in fisheries management.

[ᶜ] https://www.dfo-mpo.gc.ca/about-notre-sujet/publications/work-plan-travail/index-eng.html

INDICATOR:

DFO work plan deliverables completed

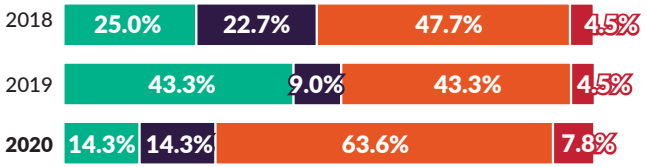
Purpose: Achieve the department's own priorities set out each year, including developing reference points, IFMPs and rebuilding plans.



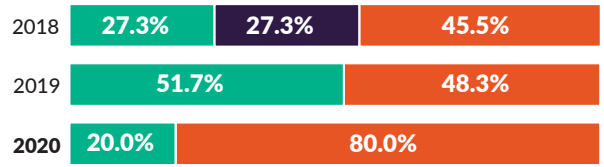
Status

Completed
Ongoing as expected
Delayed
Suspended

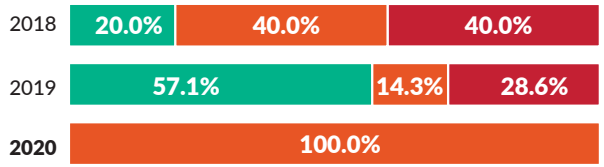
Overall deliverables



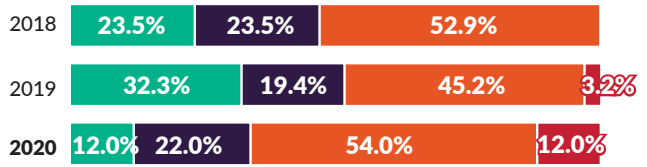
Integrated fisheries management plans



Rebuilding plans



Reference points and harvest control rules



IF COMMITMENTS WERE MET, WE WOULD SEE CHANGE

If all deliverables outlined in DFO's fiscal-year work plans from 2017–2020◊ were completed, here's how Canada's fisheries would benefit:

Stocks with LRPs:

Stocks included in IFMPs:

Stocks with USRs:

Critical zone stocks with rebuilding plans:

◊ (2017/18, 2018/19, 2019/20 and 2020/21)

Credit: iStock/piola666

THE ECONOMIC CASE FOR REBUILDING CANADA'S FISHERIES

Sustainably managed oceans create enormous benefits. That's the core principle behind the blue economy. Healthy, abundant fisheries are foundational to a thriving blue economy, employing tens of thousands of Canadians on all three coasts. But Canada's fisheries — and the livelihoods connected to them — are in trouble.

Today more stocks and a greater variety of species are on the decline. We know what happens when fisheries fail. In the 1990s, the Atlantic cod collapse put nearly 40,000 people out of work and left many of Newfoundland's coastal communities in desperate straits.

As cod and other groundfish numbers dropped, the industry shifted to shellfish. Today, lobster, crab, shrimp and scallops make up most of the economic value of Canada's fisheries. However, human and environmental pressures have pushed more shellfish stocks into the critical zone. In 2017, only one of these populations was critically depleted; today, there are eight.

Snow crab numbers off Newfoundland and Labrador have raised alarm bells. In 2009, crab landings totalled 53,400 tonnes. Ten years later, they are barely half that, with stocks hitting near-historic lows. Further shellfish declines would be devastating for coastal economies, Indigenous Peoples and the seafood sector.

Canada can't afford complacent fisheries management. Short-sighted decisions that allow unsustainable fishing on critically depleted populations fail the communities and people who depend on fish. While rebuilding fisheries may require substantial short-term catch reductions, we can reap sustainable, long-term economic gains and avoid steeper, longer-lasting reductions. According to Oceana Canada's 2019 report on the economic and social benefits of fisheries rebuilding,[>] restoring stocks like redfish, rockfish and Pacific herring to healthy levels could provide up to 11 times more economic value than today.

Credit: iStock/Pickone

[>] Sumaila R and Teh L. 2019. Economic and Social Benefits of Fisheries Rebuilding: Six Canadian Case Studies. www.oceana.ca/en/publications/reports/economic-and-social-benefits-fisheries-rebuilding

A GROWING GAP BETWEEN GOVERNMENT COMMITMENTS AND ACTIONS

The new *Fisheries Act* is now law, and the federal government has committed $100 million to assess and rebuild fish stocks. However, the most important elements of the new law have yet to take effect.

For example, the *Act* makes rebuilding plans mandatory for all depleted populations listed in regulation, but Canada still has not created the regulations needed to implement the law. In other words, the law does not currently apply to any stocks.

Work plans to implement DFO's own policies are rarely completed on time. The backlog was particularly significant in 2020 and only some of those delays can be attributed to the COVID-19 pandemic. There have been delays in releasing 80 per cent of IFMPs, more than half the reference points and harvest control rules and all rebuilding plans. At the current rate,^ it will take 10 more years until all index stocks have an LRP and 25 years until they have USRs. It will take 37 years until all critically depleted stocks are included in a rebuilding plan, which is just the first step toward deliberately promoting the growth of a collapsed population.

^ Based on the average annual increase in the percentage of stocks with each indicator over the last four years.

Meanwhile, the rebuilding plans DFO has released lack the rigour needed to make them effective. Without core elements like timelines and targets for rebuilding included in these plans, there is little reason to expect that management measures will be effective in returning stocks to health.

Credit: iStock/gorodenkoff

IMPLEMENTATION GAP

FEDERAL GOVERNMENT MANDATE COMMITMENT

"Implement the recently modernized *Fisheries Act*, which restores lost protections, prioritizes rebuilding fish populations and incorporates modern safeguards so that fish and fish habitats are protected for future generations and Canada's fisheries can continue to grow the economy and sustain coastal communities. The sustainability of our ocean resources remains paramount."

— Prime Minister Justin Trudeau's mandate letter to Bernadette Jordan, Minister of Fisheries and Oceans and the Canadian Coast Guard, December 2019

The federal government has made promising commitments. Now it needs to act on them.

"We cannot have a strong ocean economy without healthy oceans. With three oceans and the longest coastline in the world, Canada has a real opportunity to both grow our economy and become a global leader in ocean conservation."

— The Honourable Bernadette Jordan,
Minister of Fisheries, Oceans and the Canadian Coast Guard

"To realize a lucrative and sustainable ocean economy, the government must implement the rebuilding provisions in Canada's modernized *Fisheries Act* and strengthen the resilience of ecosystems by protecting marine habitats, managing climate change impacts and eliminating the scourge of plastic pollution. When these commitments are paired with progressive fisheries management, we can realize our full potential as a major fishing nation."

— Josh Laughren,
Executive Director, Oceana Canada

Credit: iStock/shaunl

OVERFISHING THE SPECIES THAT FEED OCEAN ECOSYSTEMS

Forage fish are the small, nutrient-rich schooling fish that bigger marine creatures eat, and they are crucial both to healthy ocean food webs and to healthy fisheries.

In Atlantic Canada, for example, mackerel and herring are used as bait in lucrative lobster and crab fisheries and serve as a vital food sources for everything from whales and puffins to cod. In fact, around the world, forage fish are twice as valuable in the water as they are in a net.[**]

However, Canada is overfishing these critical species. Today, more than 54 per cent of total forage fish landings come from critically depleted stocks. And the problem is only getting worse. In Oceana Canada's 2017 *Fishery Audit*, four forage fish stocks were considered healthy. Now, there's only one, and the number of critically depleted forage fish stocks has more than doubled.

Consider capelin in northeast Newfoundland and Labrador: a key forage species for countless marine animals. Between the 1980s and 1991, the biomass of this forage fish stock declined from six million tonnes to less than 150,000.

Today, we know the population hasn't recovered, but the numbers are unclear. Despite that uncertainty, DFO set a quota of nearly 20,000 tonnes in 2020. Compare that to Iceland, whose 2019/2020 quota for capelin was zero, based on rigorous stock assessments indicating the stock is near its limit reference point.

We must recover critically depleted forage fish by keeping fishing pressure to the lowest possible level and developing and implementing rigorous rebuilding plans with timelines and targets. Without action, forage fish will continue to decline, with devastating impacts to all the species, ecosystems and jobs that depend on them.

"Capelin is more valuable in the water. More capelin in the water means our future generations will still have a chance to see the shoreline flashing with silver come spring, a chance to catch and taste Atlantic cod, and see the whales feasting."

— Gordon Slade, Chair Emeritus and Senior Fellow Oceans, Shorefast Foundation

[**] Lenfest Forage Fish Task Force. 2012. Little Fish, Big Impact: Managing a Crucial Link in Ocean Food Webs. www.oceanconservationscience.org/foragefish/files/Little%20Fish,%20Big%20Impact.pdf

FROM COAST TO COAST:

MAPPING THE MOST DANGEROUSLY DEPLETED STOCKS

In 2020, there was no improvement in the number of critically depleted stocks off Canada's Pacific and Atlantic coasts. And far too many continue to lack a rebuilding plan: a mere six out of 33 stocks have them. What is new is the increase in the number of shellfish and forage fish stocks on the list — a worrying trend.

- PLAN IN PLACE
- COMMITMENT TO DEVELOP PLAN
- NO PLAN

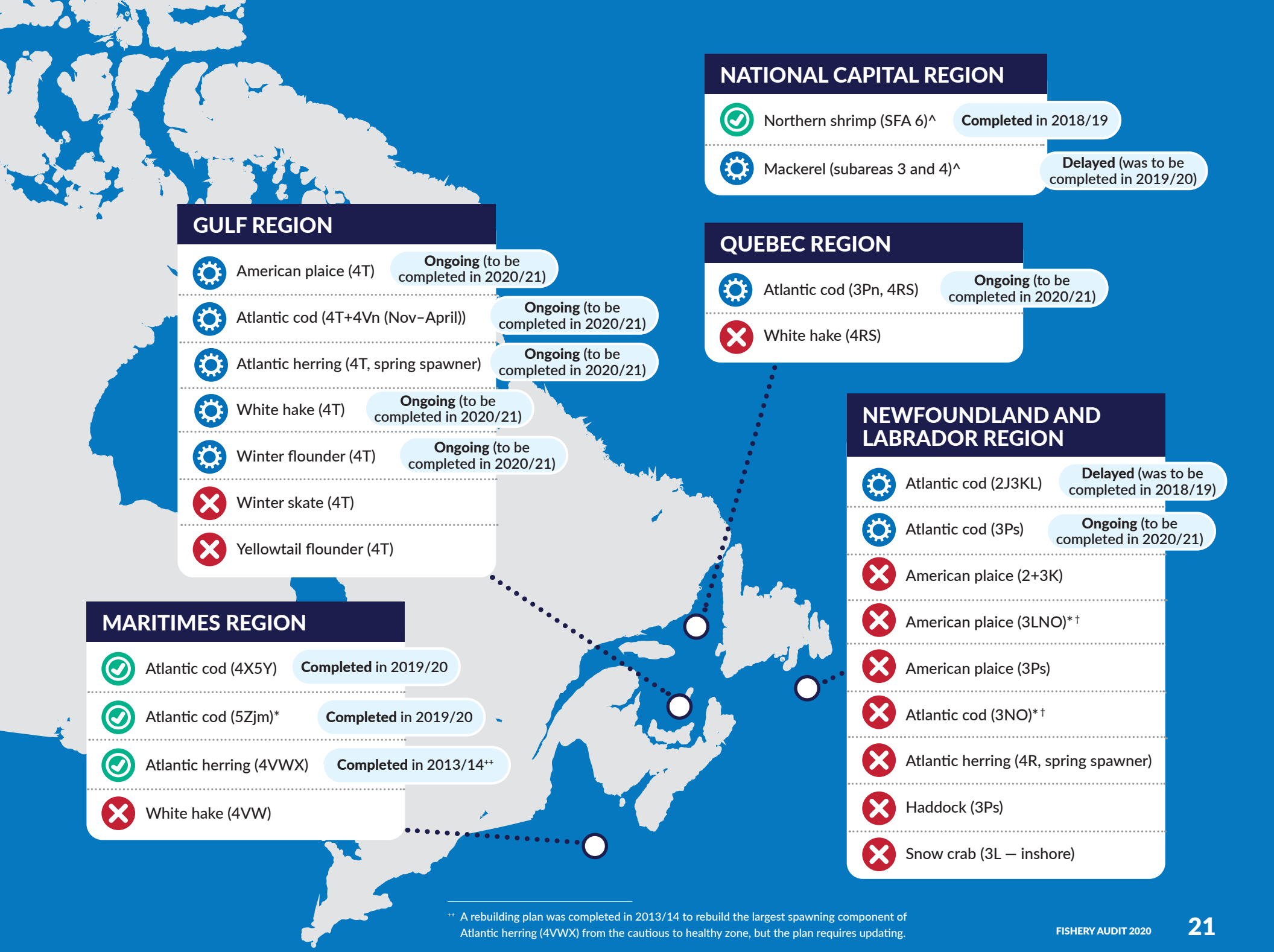
PACIFIC REGION

Bocaccio rockfish (B.C. waters)	**Completed** in 2013/14
Yelloweye rockfish (inside waters population)	**Completed** in 2017/18
Pacific herring (Haida Gwaii)	**Ongoing** (to be completed in 2020/21)
Pink shrimp (Fraser River SMA)	
Pink shrimp (Prince Rupert District SMA)	
Pink shrimp (SMA 14)	
Pink shrimp (SMA 18–19)	
Sidestripe shrimp (SMA 16)	
Sidestripe shrimp (SMA 18–19)	

* These stocks are co-managed with other jurisdictions.

† These stocks do not have rebuilding plans compliant with DFO's Precautionary Approach but do have interim rebuilding strategies developed by the North Atlantic Fisheries Organization (NAFO).

^ Rebuilding plan development for these stocks is being led by management in Ottawa.



NATIONAL CAPITAL REGION

- Northern shrimp (SFA 6)^ — **Completed** in 2018/19
- Mackerel (subareas 3 and 4)^ — **Delayed** (was to be completed in 2019/20)

QUEBEC REGION

- Atlantic cod (3Pn, 4RS) — **Ongoing** (to be completed in 2020/21)
- White hake (4RS)

GULF REGION

- American plaice (4T) — **Ongoing** (to be completed in 2020/21)
- Atlantic cod (4T+4Vn (Nov–April)) — **Ongoing** (to be completed in 2020/21)
- Atlantic herring (4T, spring spawner) — **Ongoing** (to be completed in 2020/21)
- White hake (4T) — **Ongoing** (to be completed in 2020/21)
- Winter flounder (4T) — **Ongoing** (to be completed in 2020/21)
- Winter skate (4T)
- Yellowtail flounder (4T)

NEWFOUNDLAND AND LABRADOR REGION

- Atlantic cod (2J3KL) — **Delayed** (was to be completed in 2018/19)
- Atlantic cod (3Ps) — **Ongoing** (to be completed in 2020/21)
- American plaice (2+3K)
- American plaice (3LNO)*†
- American plaice (3Ps)
- Atlantic cod (3NO)*†
- Atlantic herring (4R, spring spawner)
- Haddock (3Ps)
- Snow crab (3L — inshore)

MARITIMES REGION

- Atlantic cod (4X5Y) — **Completed** in 2019/20
- Atlantic cod (5Zjm)* — **Completed** in 2019/20
- Atlantic herring (4VWX) — **Completed** in 2013/14++
- White hake (4VW)

++ A rebuilding plan was completed in 2013/14 to rebuild the largest spawning component of Atlantic herring (4VWX) from the cautious to healthy zone, but the plan requires updating.

PROGRESS REPORT ON 2019 *FISHERY AUDIT* PRIORITIES

Over the past few years, Canada has made efforts toward rebuilding and maintaining healthy fisheries by restoring funding, increasing transparency and passing new policies and a modernized *Fisheries Act*. This year on the science front, DFO developed some new reference points and harvest control rules. And last fall, the federal government announced $107.4 million over five years to assess and rebuild stocks.

These investments must now be translated to action, as the current pace of change is insufficient to meet the government's own commitments.

Last year, Oceana Canada called on DFO to:

- Complete regulations to bring into force the new provisions in the *Fisheries Act*;
- Address inconsistencies in catch monitoring by implementing the Fishery Monitoring Policy; and
- Develop and implement high-quality rebuilding plans that include targets and timelines for critical stocks identified in the 2019/2020 work plans.

None of these priorities have been achieved. There was also no net change in the percentage of stocks with recent stock assessments or fishing mortality estimates in 2020. The number of index stocks with LRPs decreased. In addition, DFO's Canadian Science Advisory Secretariat continues to take far too long to publish key information.

The financial strain for people in the fishing industry caused by the COVID-19 pandemic resulted in funding commitments being rolled out by the government to help communities during these unprecedented times. The pandemic also undoubtedly contributed to delays in the implementation of sustainable fisheries management. However, the lack of long-term progress over the past four years reflects a systemic need for greater accountability, rigour and action in stewarding Canada's fisheries.

RECOMMENDATIONS:

CLOSE THE IMPLEMENTATION GAP

In the year ahead, Oceana Canada urges DFO to address the most critical fisheries management gaps, including:

- Complete regulations to bring into force the new *Fisheries Act* provisions, including identifying major stocks for which to develop rebuilding plans;
- Address inconsistencies in catch monitoring by implementing the national Fishery Monitoring Policy introduced in November 2019; and
- Develop and implement high-quality rebuilding plans that include targets and timelines for stocks identified in the 2020/21 work plans.

DFO should also continue to add to, update and publicly release its fiscal-year work plans, developed in response to the Commissioner of the Environment and Sustainable Development's 2016 audit. These work plans should use the best available science to inform the completion of deliverables.

To-Do Checklist

In addition to addressing the priorities laid out on the previous page, Oceana Canada calls on DFO to complete the following actions within the next year in order to accelerate the implementation of the department's Sustainable Fisheries Framework. This includes fulfilling ongoing commitments or those that have been delayed from previous work plans, as well as those scheduled to be completed this fiscal year:

Science

- ☐ **Invest resources** in timely stock assessments that include estimates of mortality from all sources, prioritizing stocks that do not have assessments or that have assessments that are more than five years old.
- ☐ **Address the causes of delays** in publishing science information and improve publication timeliness.
- ☐ **Prioritize** establishing reference points to define health status zones and develop harvest control rules for each zone.
  - Develop LRPs for eight more stock groups, ensuring at least nine more index stocks have new or updated LRPs next year, increasing the percentage of index stocks with LRPs to 67 per cent.
  - Develop USRs for three more stock groups, ensuring at least six more index stocks have a new or updated USR next year, increasing the percentage of index stocks with USRs to 49 per cent.
  - Develop Harvest Control Rules for two more stock groups, ensuring at least two more index stocks have new or updated Harvest Control Rules next year.

Monitoring

- ☐ **Implement** the Fishery Monitoring Policy to ensure all commercial fisheries have sufficient monitoring to provide accurate estimates of all retained and discarded catches.
  - Include a published work plan with timelines to guide policy implementation.

Management

- ☐ **Prioritize** completing and publishing management plans.
  - Develop and publish IFMPs for 19 stock groups, ensuring at least 23 more index stocks are included in a publicly available IFMP next year, increasing the percentage of index stocks with new or updated IFMPs to 93.3 per cent.
  - Develop and publish rebuilding plans for 14 more stocks, including northern cod (NAFO 2J3KL), Atlantic mackerel, Atlantic herring – southern Gulf of St. Lawrence spring spawners and Pacific herring – Haida Gwaii
- ☐ **Set priorities and timelines** for completing rebuilding plans for all stocks in the critical zone and those in the cautious zone that are declining toward, or have declined to, half of their USR.

TAKE ACTION

It's time to start managing Canada's fisheries more responsibly.

1. **Sign the petition and add your voice to the urgent call to rebuild Canada's fish populations at oceana.ca/RebuildAbundance.**
2. **Get breaking news and insights into vital ocean research, expeditions and campaigns at oceana.ca/Blog.**
3. **Share your passion for ocean protection with friends and family.**

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WE CAN SAVE THE OCEANS AND FEED THE WORLD.

Oceana Canada was established as an independent charity in 2015 and is part of the largest international advocacy group dedicated solely to ocean conservation. Oceana Canada has successfully campaigned to end the shark fin trade, make rebuilding depleted fish populations the law, improve the way fisheries are managed and protect marine habitat. We work with civil society, academics, fishers, Indigenous Peoples and the government to return Canada's formerly vibrant oceans to health and abundance. By restoring Canada's oceans, we can strengthen our communities, reap greater economic and nutritional benefits and protect our future.

OCEANA Protecting the World's Oceans