

FISHERY AUDIT

2018

UNLOCKING CANADA'S
POTENTIAL FOR
ABUNDANT OCEANS

Oceana Canada's second annual Fishery Audit presents assessment of the current state of our fisheries and fisheries management, progress over the past year and recommendations for the year ahead to meet policy commitments and restore abundance to our oceans.

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2018

EXECUTIVE SUMMARY:

UNLOCKING CANADA'S POTENTIAL FOR ABUNDANT OCEANS

Oceana Canada's first annual Fishery Audit in 2017 revealed that our fish stocks are not delivering nearly as much as they could, for oceans or for people.

In 2017, only one-third of our stocks were considered healthy. Of the 26 critically depleted populations, only three had rebuilding plans in place. Big gaps remained in the data required to manage stocks effectively.

One year later, some progress has been made. Fisheries and Oceans Canada (DFO) has made significant investments in federal fisheries science, and the department continues to increase transparency by releasing its annual Sustainability Survey for Fisheries and departmental work plans.

On the legislative front, the House of Commons passed revisions in June that will strengthen the Fisheries Act, including direction on rebuilding depleted stocks. If it becomes law and is supported by strong regulations, this could signal a turning point in the health of Canada's fisheries.

However, much more work needs to be done if our seafood industry is going to reach its potential.

Recent investments in federal fisheries science capacity has not yet yielded measurable change in the reported metrics. DFO is falling behind on implementing work plans developed in response to the Auditor General's 2016 report. For example, four of five rebuilding plans promised by March 2018 remain incomplete. Key policy instruments have not been fully implemented or remain in draft form, including the proposed Fishery Monitoring Policy. Meanwhile, scientific and management information produced by DFO is often published late or not at all.

On the water, there have been few changes in stock health. This is to be expected: it takes time for investments in science and policy to be reflected in measurable changes in the abundance of fish populations. However, the slow pace of policy implementation means the long-term decline in Canada's fish stocks has not yet been halted, let alone reversed.

Oceana Canada has recommended specific actions — detailed on page 18 — to address issues raised in this Audit. These include completing work plans and rebuilding plans, filling data gaps and finalizing a national catch-monitoring policy.

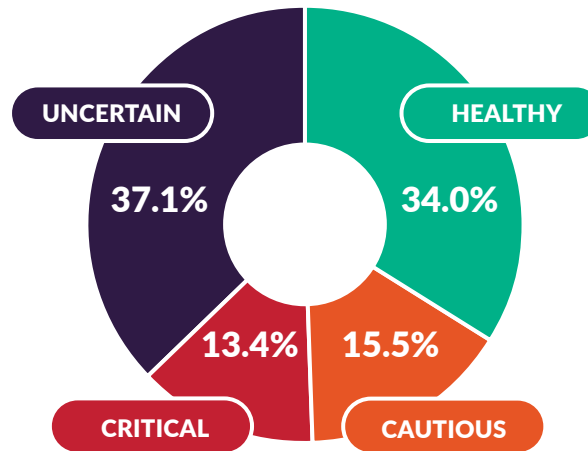


Of the 26 critically depleted populations, only three had rebuilding plans in place, none of which provide the majority of recommended content based on global best practices.

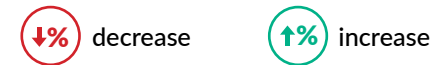
THE 2018 SCORECARD

OVERALL STOCK HEALTH STATUS

The state of Canada's marine fish and invertebrate stocks is a serious concern, with only one-third that can be confidently considered healthy. The overall stock health status remains virtually unchanged from 2017.



Indicator percentage change from Fishery Audit 2017



STOCKS WITH SUFFICIENT DATA TO ASSESS THEIR HEALTH STATUS



SCIENCE

Overall, DFO has much work remaining to deliver on its policies and commitments. Despite some improvement in a few indicators, key data is missing for a significant proportion of stocks.

STOCKS WITH FISHING MORTALITY ESTIMATES



STOCKS WITH LIMIT REFERENCE POINTS (LRPs) ESTABLISHED



STOCKS WITH RECENT BIOMASS ESTIMATES



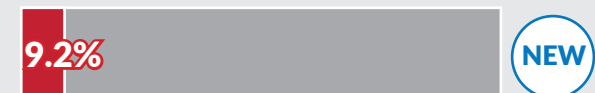
STOCKS WITH NATURAL MORTALITY ESTIMATES



STOCKS WITH UPPER STOCK REFERENCE (USR) ESTABLISHED



SCIENCE PUBLICATIONS RELEASED ON TIME



MONITORING

There are three main forms of catch monitoring used in Canada. Each tool has a different purpose, and not all fisheries require 100 per cent coverage with each tool. Currently, it's difficult to determine why coverage targets have been set at the current levels and whether those targets are being achieved. A Fishery Monitoring Policy has been drafted by DFO to address these questions and is now undergoing public consultation.

SOME LEVEL OF AT-SEA OR ELECTRONIC MONITORING

71.6%

 0.5%

SOME LEVEL OF MANDATORY LOGBOOKS

83.0%

 0.6%

SOME LEVEL OF DOCKSIDE MONITORING

75.8%

 1.6%

Indicator percentage change from Fishery Audit 2017

 decrease

 increase

MANAGEMENT

There were slight increases in the percentage of stocks included in Integrated Fisheries Management Plans (IFMPs). However, the number of critically depleted stocks with rebuilding plans remains small.

STOCKS INCLUDED IN IFMPs

74.2%

 3.6%

CRITICAL STOCKS WITH REBUILDING PLANS

11.5%

0%

DFO WORK PLAN DELIVERABLES COMPLETED

25.0%

NEW



Credit: Getty/Ron Erwin



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 fresh water. The data represented in this report is from the following time frame: June 19, 2017 and July 1, 2018.

FISHERY AUDIT 2018:

HOW WELL ARE CANADA'S FISHERIES MANAGED?

Simply put, fisheries management uses sound science and data to help decide who can fish, where and when they can fish, how much they can catch and what methods and gear they use. The goal is to maximize the current harvest while still leaving enough fish to support a healthy marine ecosystem and ensure plentiful harvests decade after decade.

This report assesses Canada's performance using indicators of good fisheries management developed from globally accepted best practices and from DFO's policy framework.

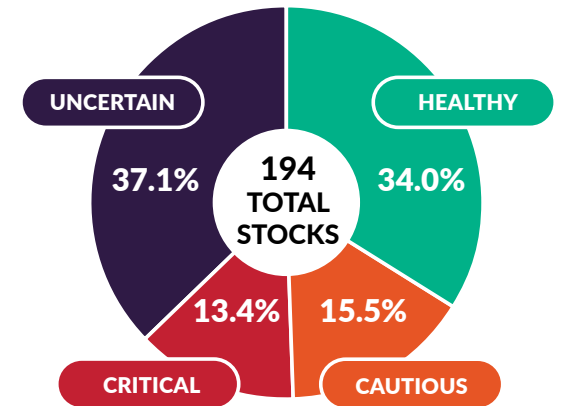
The assessment is based on an analysis of 194 stocks, using data published on DFO websites. For complete details on the methodology and analysis used in this report, visit oceana.ca/FisheryAudit2018.

OVERALL ASSESSMENT: 26 STOCKS IN CRITICAL CONDITION, 72 UNCERTAIN

In 2018, about one-third (34 per cent) of our marine stocks can confidently be considered healthy – slightly fewer than in 2017. Meanwhile, the number of critical stocks remains the same as in 2017: 13.4 per cent. Most of these critically depleted stocks are finfish located in the Atlantic Ocean.

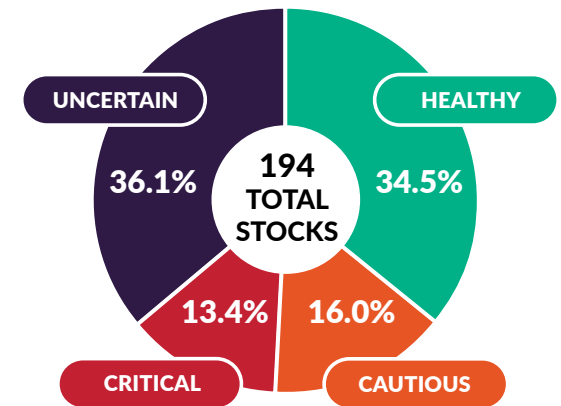
Due to lack of sufficient data, the status of 37.1 per cent of stocks remains uncertain. Some of these, including Pacific sardine and yellowtail flounder on Georges Bank, are likely to be in critical condition, while others like Newfoundland and Labrador lobster stocks are likely to be healthy.

2018 HEALTH STATUS



■ 66 healthy stocks ■ 26 critical stocks
■ 30 cautious stocks ■ 72 uncertain stocks

2017 HEALTH STATUS*



■ 67 healthy stocks ■ 26 critical stocks
■ 31 cautious stocks ■ 70 uncertain stocks

* Note: These figures are slightly different than reported in the Fishery Audit 2017 because the dataset was revised.

HEALTHY, CAUTIOUS AND CRITICAL

Fisheries and Oceans Canada has three categories of fish stock health. They are defined relative to the maximum sustainable yield: the largest amount of fish that can be theoretically harvested without reducing the size of the stock over the long term.

HEALTHY

A stock is considered healthy if its biomass is greater than 80 per cent of the amount that can support the maximum sustainable yield. When a stock is in this zone, fisheries management decisions are designed to keep it there.

CAUTIOUS

A stock falls in the cautious zone if its biomass is between 40 and 80 per cent of the amount that supports the maximum sustainable yield. If a stock falls into this zone, harvesting rates should be reduced in order to avoid seriously depleting the stock 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 the amount that supports the maximum sustainable yield. If a stock moves into the critical zone, serious harm is occurring and conservation actions become crucial.

CHANGE IN HEALTH STATUS FROM 2017

Six stocks at greater risk in 2018



Greenland halibut in the Gulf of St. Lawrence
Northern shrimp in the Gulf of St. Lawrence
Snow crab in the Scotian shelf (4X)
Pacific herring in the Prince Rupert District



Northern shrimp in Shrimp Fishing Area 6
Pacific herring in Haida Gwaii

Five stocks at reduced risk in 2018



Witch flounder in the Gulf of St. Lawrence
Acadian redfish in units 1 and 2



Deepwater redfish in units 1 and 2



Pacific ocean perch in Queen Charlotte Sound
Snow crab in northeastern Nova Scotia

SCIENCE INDICATORS: KEY DATA STILL MISSING



To track Canada's progress in improving fish stock health, Oceana Canada identified a set of key science indicators. These indicators 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 health status.



INDICATOR

Stocks with recent biomass estimates

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

Several stocks haven't been assessed since 2012 and are therefore considered outdated in this year's analysis.



INDICATOR

Stocks with reference points established

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

Limit reference point



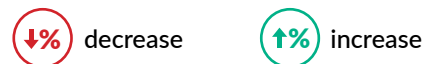
Upper stock reference



GOVERNMENT COMMITMENT:

DFO has committed to developing reference points for all major commercial fish stocks, and these results indicate they are making some progress. However, more than a third of stocks still lack limit reference points (LRPs) and more than half lack upper stock references (USRs). Without reference points, it is difficult to apply the precautionary approach framework, assess stock health or set targets for rebuilding depleted stocks to healthy levels.

Indicator percentage change from Fishery Audit 2017



DATA GAP

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

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.

INDICATOR

Stocks with fishing mortality estimates

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

18%

↓2.6%

(decrease of 5 stocks from 2017)



DATA GAP

159 stocks don't have fishing mortality estimates.

INDICATOR

Stocks with natural mortality estimates

Purpose: Determine the rate that fish naturally die, to help make better fisheries management decisions.

8.8%

NEW

Indicator percentage change from Fishery Audit 2017



decrease



increase



DATA GAP

Timeliness of publication of science information

Transparency in decision making can only occur if science information is publicly available in a timely fashion. DFO's Canadian Science Advisory Secretariat (CSAS) oversees the review and publication of science information related to the management of Canada's fisheries and oceans.

In 2017, less than 10 per cent of documents that should have been released following CSAS meetings were published on time. Almost half of the documents were published late: on average, 137.3 days later than CSAS policy timelines call for. Meanwhile, over 40 per cent of expected documents have still not been published.

Based on a review of the CSAS website. For details, visit oceana.ca/FisheryAudit2018.

Fish are removed from a population in two ways: through fishing (**fishing mortality**) and through natural causes (**natural mortality**), including being eaten by other fish. When we know the rates of both, fisheries managers can more confidently estimate the size of next year's population and adjust management practices accordingly.

Ideally, fishing mortality should include estimates of all the ways that fishing has removed fish from the stock, including commercial and recreational fishing, bycatch (the incidental catch of non-target fish), personal consumption, fish taken for bait and fish taken for social and ceremonial purposes.

CATCH MONITORING INDICATORS: CLARIFICATION REQUIRED



Catch monitoring allows us to figure out how many fish are removed and whether harvesters are obeying the rules.

There are two basic approaches: self-reporting (e.g., logbooks) and independent monitoring (e.g., at-sea observers, electronic monitoring or dockside monitoring).

Different forms of monitoring are appropriate for different stocks, and each particular tool serves a different purpose, meaning all fisheries don't need the same monitoring in place. However, in all cases the tool (s) and level of coverage chosen should result in accurate estimates of the entire catch. Right now, it's difficult to determine whether coverage targets are adequate and whether those targets are being achieved.

Overall, there has been little change in monitoring levels since 2017. A new national policy to guide the selection of monitoring tools, the level of monitoring required and the establishment of monitoring objectives is still in draft form.

INDICATOR

Stocks with fisheries that have catch monitoring in place

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

Independent dockside monitoring



At-sea or electronic monitoring



Independent dockside monitoring of 100% of landings



At-sea or electronic monitoring with 100% coverage



GOVERNMENT COMMITMENT:

DFO committed to release a national catch-monitoring policy in 2017. Currently, the Fishery Monitoring Policy is being developed.

Mandatory logbooks



Mandatory logbooks that record the entire catch



Indicator percentage change from Fishery Audit 2017



Until DFO ensures all stocks are included in an IFMP and makes the IFMPs and their associated Conservation Harvesting Plans public, the real types and targeted levels of catch monitoring in Canadian fisheries will remain difficult to estimate.

MANAGEMENT INDICATORS: FALLING BEHIND ON COMMITMENTS



Management plans and rebuilding plans provide science-based objectives for the stock, an assessment of current status and the actions required to keep or return the stock to healthy levels. Good management plans not only increase the odds of maintaining or rebuilding a healthy abundance of fish, they also give the fishing industry the certainty they need to develop longer-term business plans. In 2018, however, Canada still falls short on this front.



INDICATOR

Stocks included in Integrated Fisheries Management Plans (IFMPs)

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.

Currently, a quarter of all stocks are not included in an IFMP. Five of those stocks are in the cautious zone, while another five are in the critical zone.



(increase of 7 stocks from 2017)

* Four of these stocks are only partially included in IFMPs.

GOVERNMENT COMMITMENT:

DFO has committed to having all major commercial fish stocks included in IFMPs.

Indicator percentage change from Fishery Audit 2017



A MAJOR ISSUE

DFO has committed to including all major commercial fish stocks in IFMPs. Unfortunately, the definition of major stock can be subjective and is not applied consistently. Many of Canada's fisheries have been overfished to the point where they are no longer considered major stocks and therefore they won't be included in an IFMP or a rebuilding commitment. As a result, these stocks are less likely to ever regain major status.

INDICATOR

Stocks in the critical zone with rebuilding plans in place

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.

11.5%

0%

Note: In 2018, the yelloweye rockfish inside population was added to the Pacific region multispecies groundfish rebuilding plan. However, the rebuilding plan for Atlantic cod in the Northern Gulf of St. Lawrence expired at the end of May 2018. As a result, the percentage of critical stocks with rebuilding plans has not changed from 2017.

GOVERNMENT COMMITMENT:

In July 2017, DFO committed to developing rebuilding plans for five critical stocks between 2017 and 2019: northern cod yelloweye rockfish inside population, southwest Nova Scotia cod and redfish in unit 1 and unit 2. Four of these were to be completed in 2017. However, only one rebuilding plan has been publicly released: the plan for yelloweye rockfish inside population. Progress continues on a rebuilding plan for the iconic Northern cod stock, which is expected in 2018/19.



Credit: iStock/aimintang

INDICATOR

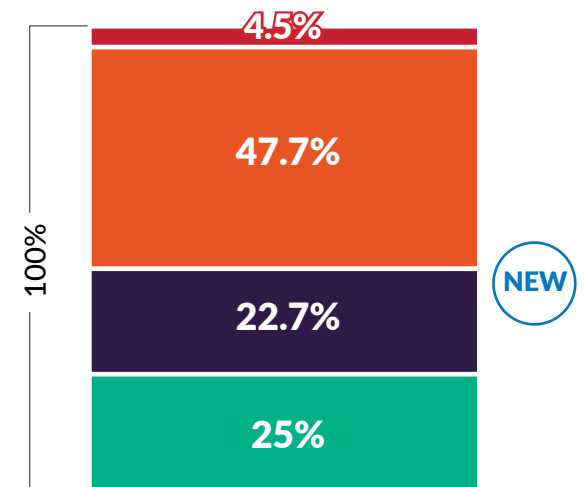
DFO work plan deliverables completed

Purpose: Complete the departmental priorities set out each year, including the development of LRPs, IFMPs and rebuilding plans.

DFO did not complete most of the deliverables outlined in the 2017/18 fiscal year work plans.

Number of deliverables: 44

- completed - **11**
- ongoing as expected - **10**
- delayed - **21**
- suspended - **2**



Based on a review of the Canadian Science Advisory Secretariat and DFO websites. For details on the methodology, visit oceana.ca/FisheryAudit2018.

A CALL FOR CHANGE:

BILL C-68, WORK PLANS AND REBUILDING PLANS

To support the rebuilding of Canada's fish populations, Canada must act to implement the suite of policies and commitments in place. This year's Fishery Audit highlights three priorities that can improve the state of our fisheries and seafood industry:

- **Bill C-68** — If strengthened and supported through strong regulations, the federal Fisheries Act has the potential to help rebuild depleted fisheries and require all fisheries be sustainably managed.
- **DFO's annual work plans** — Implementation of DFO's current commitments and policies outlined in the annual plans would result in a significant increase in stocks with LRPs, IFMPs and rebuilding plans.
- **Stock rebuilding plans** — Delivery on rebuilding plan commitments could result in some stocks rebounding to healthy levels in as little as 10 years.

IMPROVEMENTS PROPOSED IN BILL C-68, BUT SERIOUS QUESTIONS REMAIN

For 150 years, the Fisheries Act has governed the management of Canada's fisheries. For the first time, the proposed new Act sets an expectation that stocks must be managed to healthy levels and must be returned to a healthy state if they are depleted. The proposed legislation continues to offer the Minister wide latitude to exempt stocks from rebuilding and sustainable fishing requirements. If strengthened and supported by strong regulations, and implemented consistently along with existing policies, these proposed changes could set Canada's fisheries on a path to abundance.

DFO WORK PLANS: MORE TRANSPARENCY BUT DELAYS IN DELIVERING

In accordance with recommendations set out in the 2016 fisheries audit conducted by the Commissioner of the Environment and Sustainable Development (CESD),* DFO now creates and publishes annual work plans with priorities and timelines.

This is a substantial increase in transparency in fisheries management in Canada, making clear what the priorities are and when we can expect improvements. However, DFO has fallen far short in meeting the timelines set in those annual work plans.

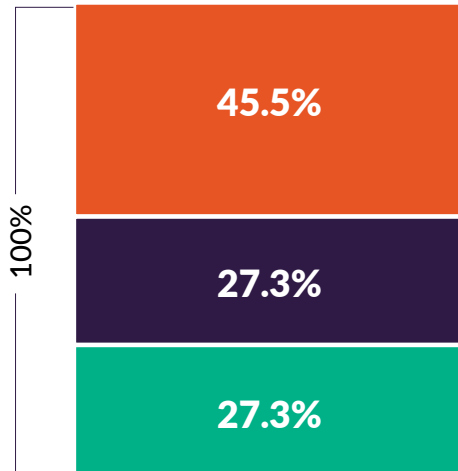
In 2017/18, DFO completed only 25 per cent of the deliverables outlined in the work plans for the fiscal year.

* Commissioner of the Environment and Sustainable Development (CESD). (2016). Report 2 – Sustaining Canada's Major Fish Stocks. Fisheries and Oceans Canada. http://www.oag-bvg.gc.ca/internet/English/parl_cesd_201610_02_e_41672.html

WORKPLAN DELIVERABLES

INDICATOR

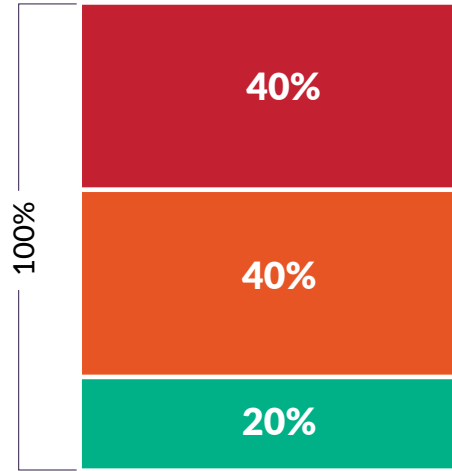
Integrated fisheries management plans



Number of deliverables: 22

- completed - 6
- ongoing as expected - 6
- delayed - 10

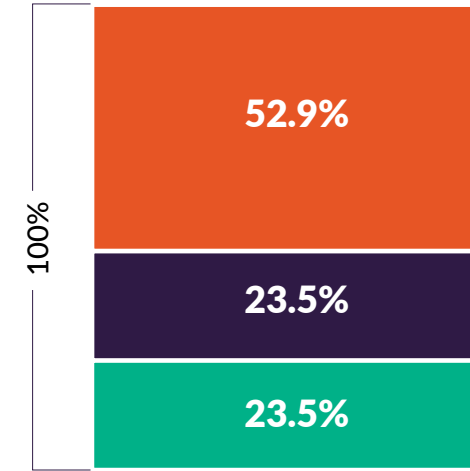
Rebuilding plans



Number of deliverables: 5

- completed - 1
- delayed - 2
- suspended, unclear if progress will continue - 2

Reference points and harvest control rules



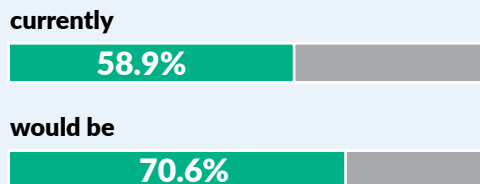
Number of deliverables: 17

- completed - 4
- ongoing as expected - 4
- delayed - 9

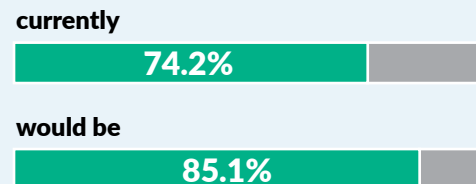
IF COMMITMENTS WERE MET, WE WOULD SEE CHANGE

DFO made work plan commitments in 2017/18 that it did not meet, and more commitments have been made for 2018/19. If DFO delivers on its commitments, we will see improvements to the management of Canada's fisheries.

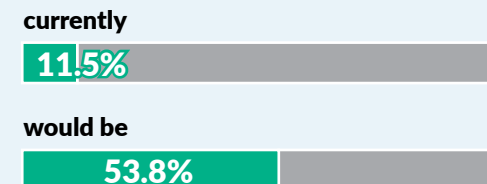
Stocks with limit reference points



Integrated fisheries management plans



Critical-zone stocks with rebuilding plans



REBUILDING PLANS: TOO LITTLE PROGRESS

Rebuilding plans are vital for restoring the health of Canada's fisheries and maintaining and strengthening the coastal communities that depend on them. In 2017, DFO committed to developing rebuilding plans for 19 stocks, some of which are in the cautious zone and declining.

In February 2018, a rebuilding plan for yelloweye rockfish inside population was published. Meanwhile, at the end of May 2018, the rebuilding plan for Atlantic cod in the Northern Gulf of St. Lawrence expired. And although the rebuilding plan for Atlantic cod on the Scotian Shelf and Bay of Fundy has been approved and reviewed by Oceana Canada and others, it is still not publicly available. As a result, just three of Canada's 26 critical-zone stocks are currently included in rebuilding plans that are published and available. Of the three rebuilding plans in place, none provide the majority of recommended content based on global best practices.

An important factor affecting stock health that we can control is the number of fish removed each year. However, threats from other human activities and climate change also play a role. Over time, these factors cumulatively impact marine ecosystems, requiring an ecosystem approach to rebuilding plan development.

CASE STUDIES

By the end of June 2018, two more critical zone stocks were included in rebuilding plans: Atlantic cod on the Scotian Shelf and Bay of Fundy and the yelloweye rockfish inside population. However, neither stock was assessed prior to the development of the rebuilding plans, and as described in the case studies below, those plans have significant flaws.

YELLOWEYE ROCKFISH – INSIDE POPULATION

The yelloweye rockfish inside population was added to the existing rebuilding plan for groundfish in the Pacific region. However, there are a number of gaps. Among other shortfalls, the stock has not been fully assessed since 2009, so targets and time frames are likely nearly a decade old. The rebuilding plan does not outline any new rebuilding measures, merely summarizing the measures that have been in place since 2012. Moreover, the effectiveness of those measures does not appear to have been evaluated, with no indication of what has been achieved to date in terms of estimated total mortality.



Credit: Ocean Exploration Trust, WHOI MISO, Northeast Pacific Seamount Expedition Partners

ATLANTIC COD 4X5Y – SCOTIAN SHELF AND BAY OF FUNDY

In March 2018, a finalized rebuilding plan was approved for Atlantic cod on the Scotian Shelf and Bay of Fundy. Because the stock has not been fully assessed since 2009, there were no recent estimates of spawning stock biomass, fishing mortality or natural mortality to inform the plan. As a result, it lacks a short-term quantified target abundance, has weak time frames and has no probability estimates associated with meeting targets in the expected time frames.

Furthermore, the rebuilding plan does not include new management measures to promote rebuilding or any evaluation of the effectiveness of those in place. On the plus side, this rebuilding plan clearly identifies knowledge gaps, future management considerations and action items to address issues related to rebuilding the stock.



Credit: Canadian Scientific Submersible Facility/ROPOS, Oceana Canada and Fisheries and Oceans Canada

FISHERY AUDIT 2018:

REBUILDING CANADA'S MOST DEPLETED STOCKS

Only three of Canada's 26 critically depleted stocks have published rebuilding plans in place. Nearly all the critical stocks are found in Atlantic Canada — home to the greatest abundance and value of Canada's fisheries — and nearly all are finfish.



PLAN IN PLACE



COMMITMENT TO DEVELOP PLAN



NO PLAN

* These stocks are co-managed with other jurisdictions.

† These stocks do not have Precautionary Approach compliant rebuilding plans 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.

PACIFIC REGION



Bocaccio rockfish (B.C. waters)



Yelloweye rockfish (inside waters population)

Completed in 2017/18



Yelloweye rockfish (outside waters population)




Pacific herring (Haida Gwaii)


Ongoing (to be completed in 2020/21)




Pink shrimp (SMA 18-19)


NATIONAL CAPITAL REGION


 Northern shrimp (SFA 6)^ **Delayed** (was to be completed in 2017/18)


 Atlantic mackerel (subareas 3 and 4)^ **Ongoing** (to be completed in 2019/20)


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)


QUEBEC REGION


 Atlantic cod (3Pn, 4RS) **Previously included in a rebuilding plan that expired in May 2018**


 White hake (4RS)


NEWFOUNDLAND REGION

 Atlantic cod (2J3KL) **Ongoing** (to be completed in 2018/19)

 Acadian redfish (2+3K)

 American plaice (23K)


 American plaice (3LNO)*†


 American plaice (3Ps)*


 Atlantic cod (3NO)*†

 Deepwater redfish (2+3K)

MARITIMES REGION

 Atlantic cod (4X5Y) **Delayed** (was to be completed in 2017/18)

 Atlantic cod (5Zjm)* **Ongoing** (to be completed in 2018/19)

 White hake (4VW)

RECOMMENDATIONS:

REMOVING ROADBLOCKS TO RECOVERY

By fully implementing its commitments and policies for sustainable management, Fisheries and Oceans Canada (DFO) can set Canada's fisheries on the path to abundance, ensuring they support coastal economies and cultures and provide a vital source of protein for future generations.

The federal government has made important investments in science and transparency. It has publicly released annual work plans that lay out DFO's priorities and timelines for achieving them.

However, timely delivery on commitments and work plans remains a concern. Of the 26 critically depleted populations, only three have rebuilding plans in place. Meanwhile, there are big gaps in the data required to manage stocks effectively.

Rebuilding and sustainably managing Canada's fisheries will require continued and sustained investment in science and management capacity, so stocks can be assessed regularly, with up-to-date management and rebuilding plans that are implemented and enforced.

TO-DO CHECKLIST

To address the issues identified in this report, Oceana Canada has developed the following recommendations for action in the next year.

SCIENCE

- Prioritize** the development of upper stock reference (USR) points in addition to limit reference points (LRPs) in work plans. Specifically,
 - Develop LRPs and harvest control rules (HCRs) for 32 more stock groups, ensuring at least 31 more stocks have new or updated LRPs and USRs and six have new or updated HCRs

- Invest resources** in timely stock assessments that include estimates of mortality from all sources, prioritizing stocks assessments that are more than five years old

- Determine the cause** of delay in the publication of science information

- Publish summaries** of science advice from meetings online within one week

MONITORING

- Complete and publish** a national Fishery Monitoring Policy, making it mandatory for all commercial fisheries to have sufficient levels of monitoring to ensure accurate estimates of all retained and discarded catches
 - Include a published work plan to guide implementation of the policy

MANAGEMENT

- Complete** all remaining 2017/18 and 2018/19 work plan deliverables (including IFMPs and rebuilding plans as itemized below)

- Develop and publish** IFMPs for 29 stock groups, ensuring at least 78 more individual stocks are included in an IFMP

- Develop and publish** rebuilding plans for five more stocks:
 - Atlantic cod – Scotian Shelf and Bay of Fundy
 - Atlantic cod – Georges Bank
 - Atlantic cod – northern cod
 - Yellowtail flounder – Georges Bank
 - Northern shrimp – shrimp fishing area 6

- Report** on progress towards the development of rebuilding plans for the remaining 11 committed stocks

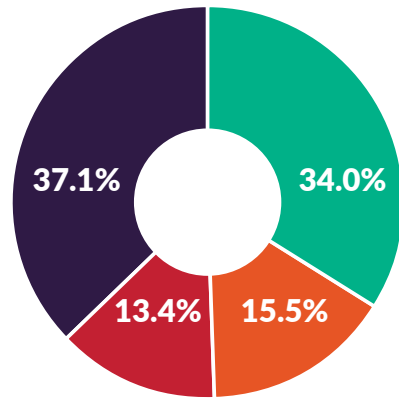
- Set priorities** and timelines for completing rebuilding plans for all stocks in the critical zone

- Ensure** rebuilding plans are informed by recent stock assessments and include targets and timelines with probability estimates of meeting them, as well as evidence-based management measures to promote rebuilding

OVERVIEW OF INDICATORS

HEALTH STATUS

- HEALTHY
- CAUTIOUS
- CRITICAL
- UNCERTAIN



STOCKS WITH FISHING MORTALITY ESTIMATES

18%

STOCKS WITH NATURAL MORTALITY ESTIMATES

8.8%

STOCKS WITH REFERENCE POINTS ESTABLISHED

LIMIT REFERENCE POINTS

59.8%

UPPER STOCK REFERENCES

45.9%

STOCKS WITH SOME LEVEL OF CATCH MONITORING



AT-SEA OR ELECTRONIC MONITORING

71.6%



LOGBOOK MONITORING

83%



DOCKSIDE MONITORING

75.8%

STOCKS WITH SUFFICIENT DATA TO ASSESS THEIR HEALTH STATUS

62.9%

CRITICAL STOCKS WITH REBUILDING PLANS IN PLACE

11.5%

DFO WORK PLAN DELIVERABLES COMPLETED

25%

STOCKS WITH RECENT BIOMASS ESTIMATES

63.9%

STOCKS INCLUDED IN INTEGRATED FISHERIES MANAGEMENT PLANS

74.2%

SCIENCE PUBLICATIONS RELEASED ON TIME

9.2%

TAKE ACTION

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

1. Add your voice to the urgent call to rebuild Canada's fish populations. Become an Oceana Canada *Wavemaker* at oceana.ca and join supporters from across the country who are committed to saving Canada's oceans.
2. Make sure Canada gets the strong Fisheries Act we need. Tell the Senate to strengthen the rebuilding provisions in Bill C-68.
3. Get breaking news and insights into vital ocean research, expeditions and campaigns at oceana.ca/blog.
4. Share your passion for ocean protection with friends and family.



Oceana Canada



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OCEANA CANADA: SAVING THE OCEANS TO FEED THE WORLD

Oceana Canada is an independent charity and is part of the largest international advocacy group dedicated solely to ocean conservation.

Canada has the longest coastline in the world, with an ocean surface area of 7.1 million square kilometres, or 70 per cent of its landmass. Oceana Canada believes that Canada has a national and global obligation to

manage our natural resources responsibly and help ensure a sustainable source of protein for the world's growing population.

Oceana Canada works with civil society, academics, fishers, Indigenous Peoples and the federal 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