



**OCEAN WISE RAPID ASSESSMENT
STANDARD (RAPSTA) RESULTS**

2023/24 CANADIAN FISHERIES RESULTS

JANUARY 17 2024

Table of CONTENTS

2 **Background**

Since 2005, Ocean Wise has helped Canadians choose sustainable seafood by producing a list of 'Ocean Wise Recommended' products by conducting fisheries assessments to assess the performance of a fishery based on the Seafood Watch Standard indicators of stock health, impacts on other species and ecosystems and fisheries management.

4 **Methods**

Recognizing the importance of small-scale fisheries and a need to understand the sustainability of Canadian caught seafood, Ocean Wise developed the Rapid Assessment Standard (RAPSTA) to deliver a more comprehensive set of ratings by leveraging open source data from Oceana Canada's annual Fishery Audit.

6 **Results**

In total, 180 new ratings for Canadian fisheries were generated with 17% achieving Ocean Wise Recommended status. Overall, RAPSTA scoring outcomes were found to be more precautionary than full assessments with a high degree of accuracy in discerning Ocean Wise recommendations.

9 **What this means for consumers?**

Unfortunately, only 32% of total Canadian seafood ratings currently meet Ocean Wise's bar for sustainability. Even more concerning is that less than one third of fish stocks in Canada are considered biologically healthy.

11 **The Future of RAPSTA**

The future of RAPSTA is to continue using this one-of-a-kind tool to engage with fisheries across the country and provide consumers with the best available science on seafood sustainability in Canada. We are actively adapting this methodology to generate ratings for a wider breadth of species and geographies, such as Pacific Salmon.

Please cite: Renshaw, S. (2024). Ocean Wise Rapid Assessment Standard (RAPSTA): 2023/24 Canadian Fisheries Results. Ocean Wise. Vancouver.



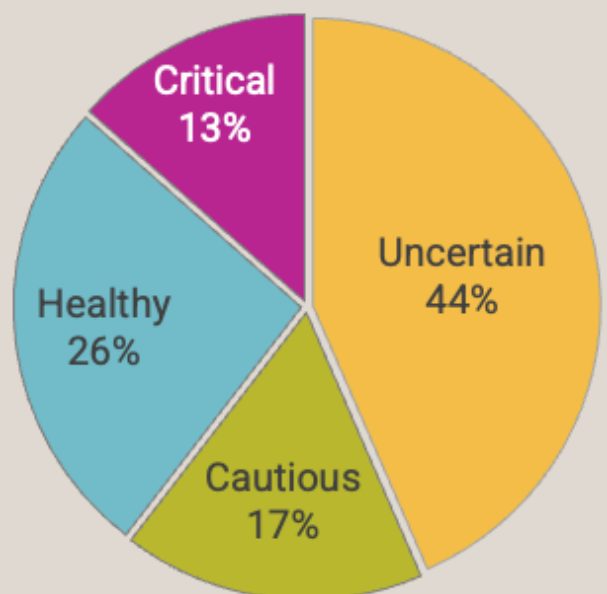
BACKGROUND

Over 3 billion people worldwide depend on fisheries as an important source of protein and a critical economic resource. With 35% of global fish stocks experiencing overfishing and an additional 65% maximumly exploited, it is critical that governments, businesses and seafood consumers work together to restore abundance and promote sustainable fisheries (FAO 2022). To support sustainable fishing industries in response to depleting fish stocks and increasing demand for seafood, Ocean Wise has been committed to ensuring Canadians have access to recent and standardized information on the environmental impact of fisheries operating within Canadian waters and globally. Ocean Wise provides ratings for these fisheries based on the assessment criteria and associated Standards written by the Monterey Bay Aquarium's Seafood Watch Program. The Seafood Watch Standard for Fisheries is used to quantitatively score ecological impacts of a given fishery based on: target stock health, the impacts of fishing gear on other species, management, and marine habitats.

THE STATE OF CANADIAN FISHERIES 2023

In the Oceana Canada Fisheries Audit, stocks are assigned a status of Healthy, Cautious, Uncertain, or Critical according to the health of each population.

For 2023, less than one third of fish stocks in Canada are considered Healthy. The status of many stocks remains Uncertain, hindering management and limiting potential for recovery.



Credit: Oceana Canada (2023b)*

*Based on the total number of stocks available for the 2023 Fishery Audit (n = 230). Oceana Canada uses stock indicators that are consistent year over year to provide comparative time series data (n = 196). Here we present summarized data relative to all stocks analyzed using the RAPSTA methodology

With the launch of our Rapid Assessment Standard (RAPSTA) methodology in 2022, we have been able to provide seafood sustainability ratings more quickly and efficiently for Canadian fish stocks. For RAPSTA, we leverage open-source data from Oceana Canada, a global leader in marine conservation and advocacy. Since 2017, Oceana Canada has published an annual Fishery Audit of fish stocks in Canada based on Fisheries and Oceans Canada (DFO) stock assessment data and management plans. This resource currently amalgamates measures of target stock health as well as other key indicators for 230 stocks across the country and is the most comprehensive publicly available database of its kind for Canadian fisheries. The 2023 Fishery Audit reports that only 26.1% of stocks in Canada are biologically healthy and most depleted stocks are missing comprehensive time-bound rebuilding plans. Despite legal requirement to establish rebuilding plans, only 6 of 28 Critical stocks currently have them in place (Oceana Canada 2023a).

In 2023, Ocean Wise provided 381* ratings for wild Canadian seafood of which only 27% were Ocean Wise Recommended. As such, Canadians have limited options for locally sourced and sustainably labelled seafood. To truly understand the reality of Canada's seafood industry, market availability and fishery ocean impact must be presented together. Herein we provide a detailed look at the latest RAPSTA outcomes and analyze the best available information on the sustainability of Canadian fisheries in order to better educate consumers and Ocean Wise partners.

*This includes Seafood Watch and RAPSTA assessments for 2023 only.

METHODS

Two primary data sets were used for RAPSTA: the 2023 Oceana Fishery Audit and Ocean Wise Canadian ratings database (December 2023). We paired the two databases together to obtain all possible Stock-Species-Ocean-Gear combinations based on species' Latin names. In cases where species in the Fishery Audit did not already exist in the Ocean Wise database, reasonable judgments were made based on similar species in the region (e.g. crustaceans were paired with trap and bottom trawl gears, forage fish were paired with purse seine, etc.). The Fishery Audit only reports on wild capture, marine based fisheries and is therefore not comprehensive of all commercial harvest in Canada (ex., excludes kelp, freshwater fisheries, and salmonid species*). Manual verification of Ocean Wise ratings for each Stock-Species-Gear combo was performed based on DFO's Sustainability Survey as of 2021 (DFO 2021). In cases where a full Seafood Watch assessment was available or a stock was certified by the Marine Stewardship Council (MSC), the stock was removed from analysis and the original rating was upheld. Ratings were developed according to the methodology outlined in Schiller & Renshaw (2023).

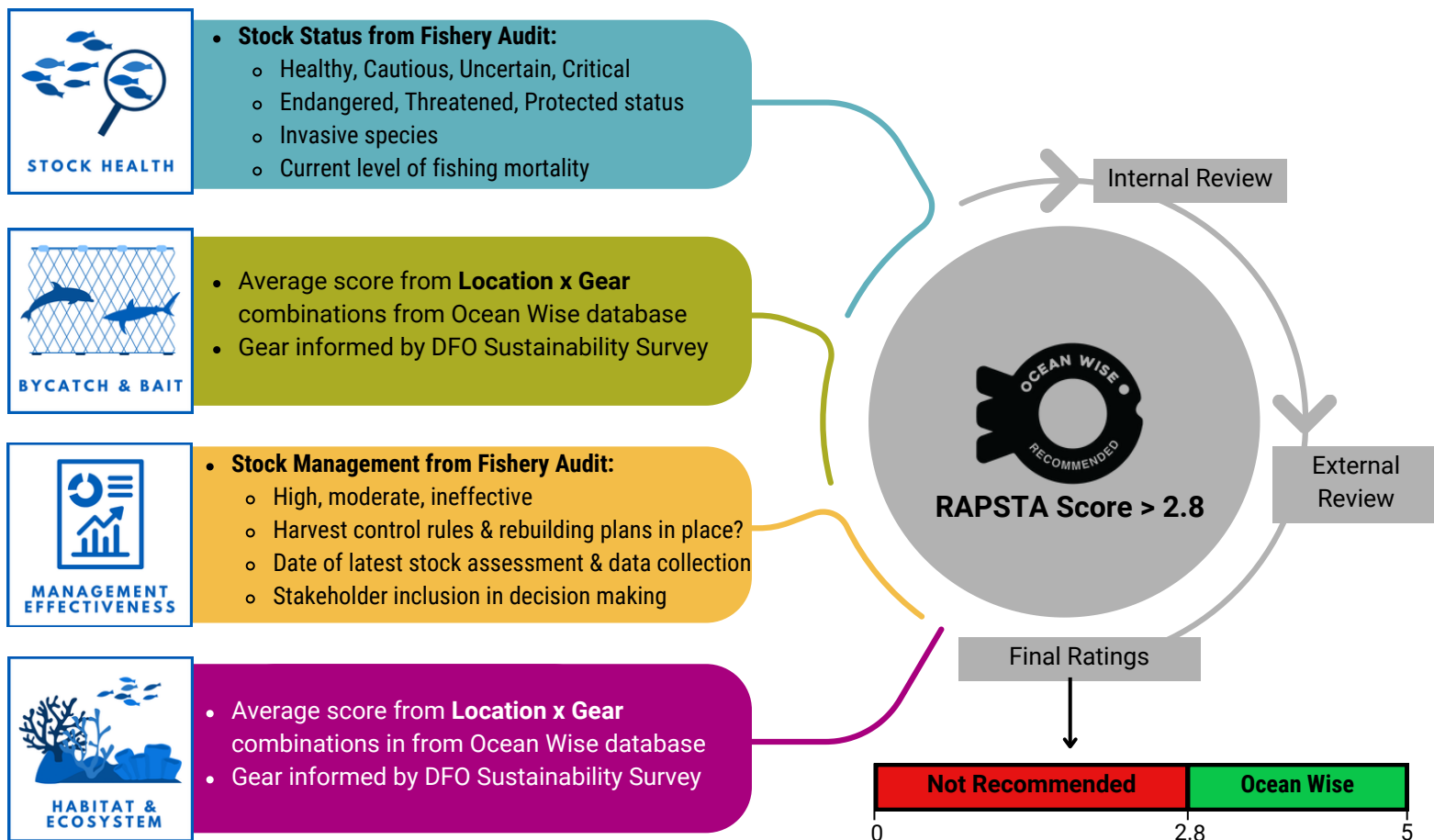


Figure 1. Criteria 1 (Stock Health), 2 (Bycatch & Bait), 3 (Management Effectiveness), and 4 (Habitat & Ecosystem) with their corresponding definitions and sample scoring indicators (Left), alongside the process for RAPSTA review and rating finalization (Right).

*In 2022, Oceana Canada included a Salmon Appendix to their Fishery Audit.



“RAPSTA is an innovative tool allowing us to produce and highlight consumer-facing sustainability recommendations for fisheries products giving us a more complete snapshot of the Canadian seafood landscape”

Scott McIlveen

Science Analyst, Ocean Wise Fisheries & Seafood Initiative

Species-Gear-Location combinations that fit under an existing certified MSC fishery were excluded, along with fisheries where a Seafood Watch assessment is currently under review or being drafted. Full Seafood Watch assessments supersede the RAPSTA-based Ocean Wise rating. Whenever possible, conducting a full assessment for seafood products will remain best practice. RAPSTA is not intended to replace or duplicate such assessments, nor is RAPSTA suited for use on large-scale commercial operations (despite evidence that scoring is accurate).

Per the Seafood Watch Standard, the overall score for each fishery was calculated as the geometric mean of the four criteria (Figure 1; Seafood Watch 2020). All fisheries with an overall score of 2.8 or more, were deemed Ocean Wise and those below this threshold were Not Recommended. Regardless of the scores for other criteria, if a fishery scored ‘Critical’ on management, it could not receive a recommendation.



RESULTS

NEW RATINGS

For 2024, RAPSTA generated 263 new (potential) ratings relative to the original Ocean Wise database for Canadian fisheries based on the stock and species information provided by the Oceana Fishery Audit and gear types according to the DFO Sustainability Survey. Despite this high total number of ratings generated through RAPSTA based on the 230 original Fishery Audit stocks, they are deemed 'potential' as certain Gear-Species-Location combinations may not be commercially available. All possible combinations were investigated to determine a final list of 180 fisheries that are highly likely to exist.

RAPSTA 2024 RESULTS

180
NEW
RATINGS

Just **17%** of
RAPSTA results are
Ocean Wise
Recommended

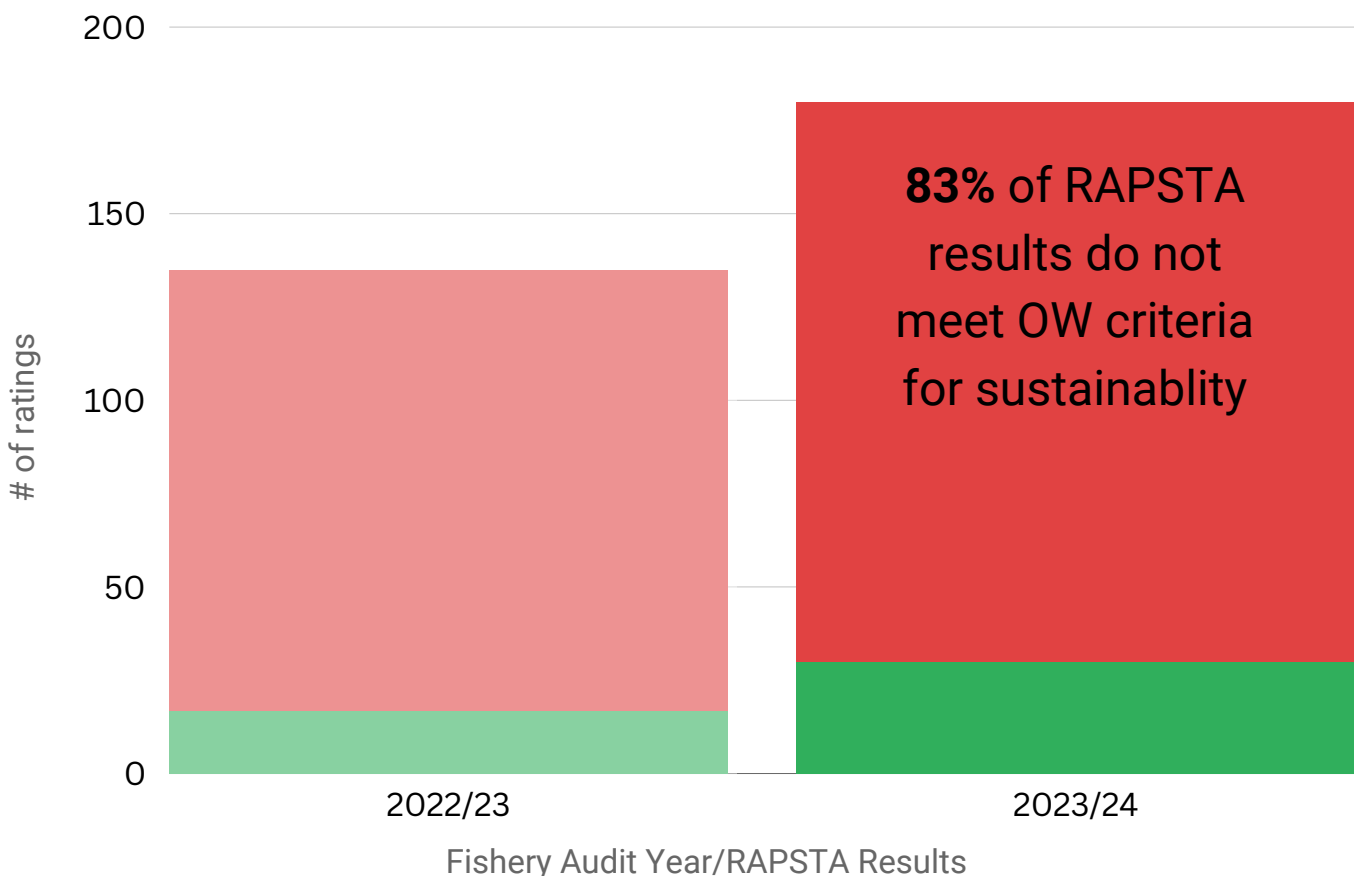


Figure 2. Summary results from 2024 RAPSTA analysis using the 2023 Fisheries Audit Data. The graph shows result comparisons from the previous year's RAPSTA results (Schiller & Renshaw, 2023).



The majority of new RAPSTA ratings were 'Not Recommended' (n = 150). One driving factor for this result was ineffective management scores for target species, especially in the case of COSEWIC-listed species and the absence of associated robust recovery plans. Low bycatch scores also informed this result, especially in the Atlantic Ocean due to concerns over fixed gear interactions with endangered whales (Figure 2). In cases where the gear used to catch species were too dissimilar to other gears in the existing Ocean Wise database (i.e. no Criteria 2 or 4 scores could be applied), stocks were removed from analysis and no rating was generated (e.g. hagfish - *Myxine glutinosa*, caught using barrels). Stocks listed as 'Uncertain', received the second lowest score in RAPSTA outcomes. To assign a more accurate scoring, a full stock assessment is needed to understand the health of each species and stock. All but one of the consistent ratings from 2022/23 to 2023/24 (n=84) maintained its previous rating (Beaked Redfish caught with Midwater Trawls was downgraded to Not Recommended).

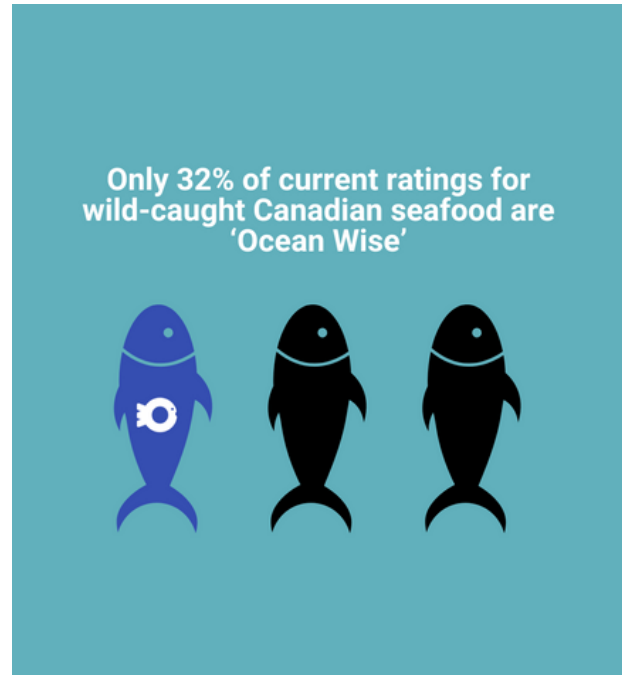


“The objectives of RAPSTA are to give Canadians a more complete understanding of domestic seafood sustainability and fill gaps in our ability to provide recommendations for small-scale fisheries.”

Sam Renshaw

Science Lead, Ocean Wise Fisheries & Seafood Initiative

We were able to generate more ratings for 2023/24 compared to RAPSTA results for 2022/23 due to improved confidence in gear types used throughout Canadian fisheries per the DFO Sustainability Survey (not previously used) and by increasing granularity of species harvested throughout Intertidal Clam fisheries. However, this year we chose to remove some stocks from our final list of ratings as they are not likely to be commercially available (e.g. fisheries under moratorium). Despite a slightly higher overall percentage of Ocean Wise recommendations compared to 2022 (29%; Schiller & Renshaw, 2023), continued fisheries closures have led to the removal of 'Not Recommended' items, therefore increasing the proportion of 'Ocean Wise' options (ex., Pacific Sardine).



ACCURACY OF RAPSTA SCORES

As in 2022, RAPSTA results that generated an 'Ocean Wise' score were 100% accurate to existing assessments, and ratings scored 0.35 lower than existing assessments. This means that while RAPSTA was consistent in matching overall 'Ocean Wise' and 'Not Recommended' ratings, final numerical scores generated through RAPSTA were biased toward more conservative values relative to existing Ocean Wise ratings. Multiple fisheries scored 'Critical' for management (Criterion 3: Management Effectiveness) on account of stocks for overfished COSEWIC-listed species lacking a recovery plan. However, there was no other distinguishable pattern to this trend by region or by gear making it impossible to address it comprehensively for all stocks and species. Therefore, the final 'Ocean Wise' or 'Not Recommended' rating rather than the numerical score appears to be a better way of determining the effectiveness of the RAPSTA approach and communicating associated recommendations.

Outputs of RAPSTA were 65% accurate to existing Ocean Wise ratings previously generated using the full Seafood Watch Standard (i.e. 85 of 131). Although a slightly lower match percentage than 2022 (previously 70%), the results are based on fewer Seafood Watch assessment data points. Additionally, the majority of incorrectly matched RAPSTA-Ocean Wise ratings were for species caught in association with Pacific Ocean rockfish bottom trawl fisheries—the main driver here being different Criterion 1 (Stock Health) scores based on the Seafood Watch Groundfish report from 2016, which is currently under re-evaluation. RAPSTA matched 66 of 80 (82.5%, slightly decreased compared to 84% from 2022) Ocean Wise ratings when not including species from the BC Groundfish complex. Based on these results, the RAPSTA methodology is highly robust for most species and gear types Canada-wide, particularly smaller-scale or single species fisheries.



WHAT DOES THIS MEAN FOR CANADIAN CONSUMERS?

RAPSTA quickly and efficiently translates domestic fish stock assessments into necessary information for Canadian consumers and Ocean Wise Seafood partners. RAPSTA scores indicate many fisheries in Canada are operating below the level Ocean Wise considers sustainable. In fact, across all of Ocean Wise's Canadian fisheries ratings (including newly generated RAPSTA results) just 32%* (n = 165) meet our bar for sustainability. This information is critical for helping consumers and businesses make informed choices when it comes to their seafood.

The good news is there are several recommended steps for consumers who are concerned about the sustainability of the seafood they eat. First, choosing products branded with the Ocean Wise symbol ensures that item has been properly audited by our team as a biologically sustainable stock, harvested in a fishery that is well managed and having little or no effect on the wider ecosystem. Second, if the information isn't readily available on packaging we encourage consumers to ask questions about the species name and what methods were used to harvest the seafood in question. Accessing the Ocean Wise seafood search function on our website can help consumers make an informed decision. Finally, supporting efforts to improve fisheries management and protect our fish stocks, like those outlined by Oceana Canada, help to drive change at the highest levels of government.

*Including Seafood Watch and MSC data.

WHAT DOES THIS MEAN FOR OCEAN WISE PARTNERS?

Ocean Wise partners are able to apply the Ocean Wise symbol to Ocean Wise Recommended RAPSTA outputs as normal, with the understanding that this suite of new assessments is subject to change annually (as opposed to a more typical 5 year timeline with full Seafood Watch Standard assessments).



THE FUTURE OF RAPSTA

With new RAPSTA-based recommendations updated yearly, we are now able to provide Canadians with more accurate information about domestic seafood products. RAPSTA has become a valuable tool for tracking the environmental performance of Canadian fisheries and their associated improvements over time. As new recommendations continue to become available for smaller-scale fisheries through this new methodology, we hope RAPSTA will serve as a tool to engage more closely with small-scale producers and businesses across Canada. Given the large proportion of results that are “Not Recommended” we are optimistic that we can help fisheries improve ratings over time through the work of the Ocean Wise Fisheries and Seafood Initiative to not only protect and restore ecosystems, but to secure strong coastal livelihoods into the future.

In April 2022, changes to the Fisheries Act brought about a legal requirement to implement rebuilding plans for all Critically listed stocks. Currently less than a quarter of critically listed stocks have a rebuilding plan in place and there have not been any new recovery plans set in 2023 (Oceana Canada 2023a). Improvements to fisheries management will benefit the overall well-being of Canadian fish stocks and we expect that as more rebuilding plans are put in place, the outcomes of RAPSTA will trend towards increasing numbers of Ocean Wise options.

To our knowledge, RAPSTA is the first of its kind to produce rapid assessments for sustainable fisheries. The flexibility of this methodology will allow us to adapt the framework over time to expand rapid assessments beyond Canadian fisheries and into other geographies where suitable data is available. We are actively in the process of adapting RAPSTA to include Criterion within the Seafood Watch Salmonid Standard to assess BC Salmon fisheries. If successful, we will be able to produce ratings for Pacific salmon that can respond to seasonal changes. Equipped with this valuable new tool, it is our goal at Ocean Wise to continue to provide even more sustainable seafood recommendations in our efforts to combat overfishing and promote



ACKNOWLEDGEMENTS

We would like to thank Oceana Canada and Seafood watch for their continued support in our RAPSTA methodology. Without Oceana Canada's dedication to creating open source, accessible data, RAPSTA would not be possible. Similarly, we owe many thanks to Seafood Watch for creating what we consider the gold standard for seafood sustainability and for their generosity. It is because of these organizations commitments to fisheries health and sustainability that inspired the creation of this process.

We also want to acknowledge Laurenne Schiller, the creator of RAPSTA and former Ocean Wise team member for her hard work in launching this methodology and wish her all the best on her latest endeavours.

GLOSSARY

TERM	DEFINITION
Ocean Wise (adjective)	Meets Ocean Wise’s criteria for a sustainable fishery. Scores 2.8 or higher.
Assessment	Peer-reviewed, open-access, published literature that details the evaluation of a wild capture fishery or aquaculture operation against Criteria or Principles within a program’s Standard. Herein we are referencing the process of using the Seafood Watch Program standard to determine the sustainability of a given fishery or fish stock.
Bycatch	Species unintentionally caught in a fishery.
COSEWIC	Committee on the Status of Endangered Wildlife in Canada.
Criteria	Science-based performance metrics against which the ecological sustainability of a product is determined.
Eco-certification	Procedure by which an independent auditor gives written or equivalent confirmation that a product, process, or service meets the specified environmental requirements of a third-party Standard (ex. Marine Stewardship Council).
ETP	Referring to Endangered, Threatened, or Protected status of a species by an conservatory entity (ex. COSEWIC, IUCN).
Method	Gear or device used to harvest fish.
Not Recommended	Does not meet Ocean Wise’s criteria for a sustainable fishery. Scores below 2.8.
RAPSTA	Also known as the Rapid Assessment Standard developed by Ocean Wise.
Rebuilding Plan	A plan that aim’s to have a high probability of a stock growing out of the Critical Zone within a reasonable timeframe.
Recommendation	Tool for measuring and communicating fishery and/or aquaculture operation performance to government, producers, NGOs, business partners, and other stakeholders.
Reference Points	Benchmarks used to compare status of a given fish stock to a desirable state.
Score or Rating	Referring to the numerical outcome of assessments (including RAPSTA) used to determine the recommendation status.
Seafood Watch Standard	A set of criterion used to determine the sustainability of a given seafood items.
Stock	A defined population of a species of fish.

REFERENCES

Department of Fisheries and Oceans (DFO) (2021). Sustainability Survey for Fisheries. Accessed November 28, 2023. <https://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/survey-sondage/index-en.html>

Department of Fisheries and Oceans (DFO) (2022). Department of Fisheries and Oceans Canada: Fisheries Act Canada Gazette, Part 2, Volume 156, Number 8: Regulations Amending the Fishery (General) Regulations

FAO. (2022). The State of World Fisheries and Aquaculture 2022. Towards Blue Transformation. Rome, FAO. <https://doi.org/10.4060/cc0461en>

Oceana Canada (2023a). Oceana Canada 2023 Fishery Audit: Unlocking Canada's Potential for Abundant Oceans.

Oceana Canada (2023b). Oceana Canada 2023 Fishery Audit: Unlocking Canada's Potential for Abundant Oceans, Indicator Data: Accessed November 28, 2023.

Schiller, L. and Renshaw, S. (2023) Ocean Wise Rapid Assessment Standard (RAPSTA): 2022/23 Canadian Fisheries Results. Ocean Wise. Vancouver.

Seafood Watch (2020). Monterey Bay Aquarium Seafood Watch Program. Standard for Wild Fisheries.

Seafood Watch (2023). Monterey Bay Aquarium Seafood Watch Program. Seafood Search Results.