



UNTRACEABLE

THE CONSEQUENCES OF CANADA'S POORLY REGULATED SEAFOOD SUPPLY CHAINS

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Canada is losing up to \$93.8 million in tax revenue each year due to the illicit seafood product trade.

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Executive summary:

The dark side of the seafood industry

Seafood is one of the most highly traded food commodities in the world, with notoriously long and complex supply chains. In Canada, a lack of transparency in seafood supply chains is masking hidden costs – to the economy, our fisheries sector, ocean health and global human rights.

Without adequate traceability in place, Canada is knowingly contributing to a global web of illegal, unreported and unregulated (IUU) fishing* and illicit seafood trade practices – those that involve money, goods or value gained from illegal and generally unethical activity.¹

Our opaque supply chains are costing us: Canada is losing up to \$93.8 million[†] in tax revenue each year due to the illicit seafood product trade, and Canadians are spending up to \$160 million a year on seafood caught through IUU fishing. These practices also weaken the sustainability of fisheries and cheat both consumers and honest Canadian fishers.

Right now, fish and seafood products caught by individuals who have been trafficked into modern slavery can make their way onto Canadian supermarket shelves, simply because safeguards to prevent this have not been put in place. The sale of these products makes Canada complicit in global human rights abuses and perpetuates the market for illegally caught fish.

* This report refers to the specific categories of illegal, unregulated and unreported (IUU) fishing activities where possible and uses the term “illicit” to define when IUU catch is laundered into the legitimate seafood market. While the illicit catch of seafood includes the illegal aspect of IUU, it also includes catch that may be unethically traded but is not technically illegal (e.g. unreported catch).

[†] Unless otherwise specified, all amounts are in Canadian dollars.



Ninety-four per cent of Canadians want the government to deliver on its commitment to seafood traceability.

Credit: iStock, zssp

Canada's weak traceability standards also increase the chances of seafood fraud and mislabelling, which can be harmful to human health and result in consumers paying more than they should for products. In a study conducted across six Canadian cities between 2017-2019, Oceana Canada found that 47 per cent of seafood samples in Canadian grocery stores and restaurants analyzed using DNA testing were mislabelled.

There is strong support for a seafood traceability system in Canada. A 2020 Oceana Canada-commissioned study by Abacus Data found that 94 per cent of Canadians support the federal government's commitment to implement boat-to-plate traceability for seafood, with more than half of those polled saying they strongly support it. In addition, 80 per cent of Canadians say that improved seafood labelling standards, facilitated by traceability, would increase their confidence in purchasing seafood.

As Canadian fisheries seek to rebuild post-COVID-19, including by growing the market for their products, traceability stands to increase consumer trust at home and ensure continued market access for Canadian products globally. Some of Canada's most important seafood trading partners have had much stronger traceability requirements in place for years.

The federal government has acknowledged that IUU fishing and seafood fraud are serious problems that must be addressed: in December 2019, it committed to implementing boat-to-plate traceability; however, no timeline has been put in place to develop this system.

Oceana Canada is calling on the federal government to keep products of IUU fishing out of Canadian supply chains and tackle seafood fraud and mislabelling by:



Requiring that key information follows all seafood products throughout the supply chain, from the boat or farm to the point of final sale, including catch documentation for all domestic and imported seafood;



Improving traceability verification measures such as DNA testing for species authentication and enforcement measures that include significant penalties to deter fraud; and



Improving seafood labelling by requiring that labels include more detailed and accurate information.

To deliver on the government's commitment, the Minister of Health and the Minister of Fisheries, Oceans and the Canadian Coast Guard must collaborate with the necessary government agencies to establish and implement a robust Canadian boat-to-plate traceability system.

What is illegal, unreported and unregulated fishing?

Illegal, unreported and unregulated (IUU) fishing is breaking or avoiding fishing rules. It encompasses a variety of fishing activities, including:[‡]

Illegal fishing

Fishing without permission from the relevant national authority or regional fisheries management organization (RFMO), or in contravention of their laws and regulations or measures.

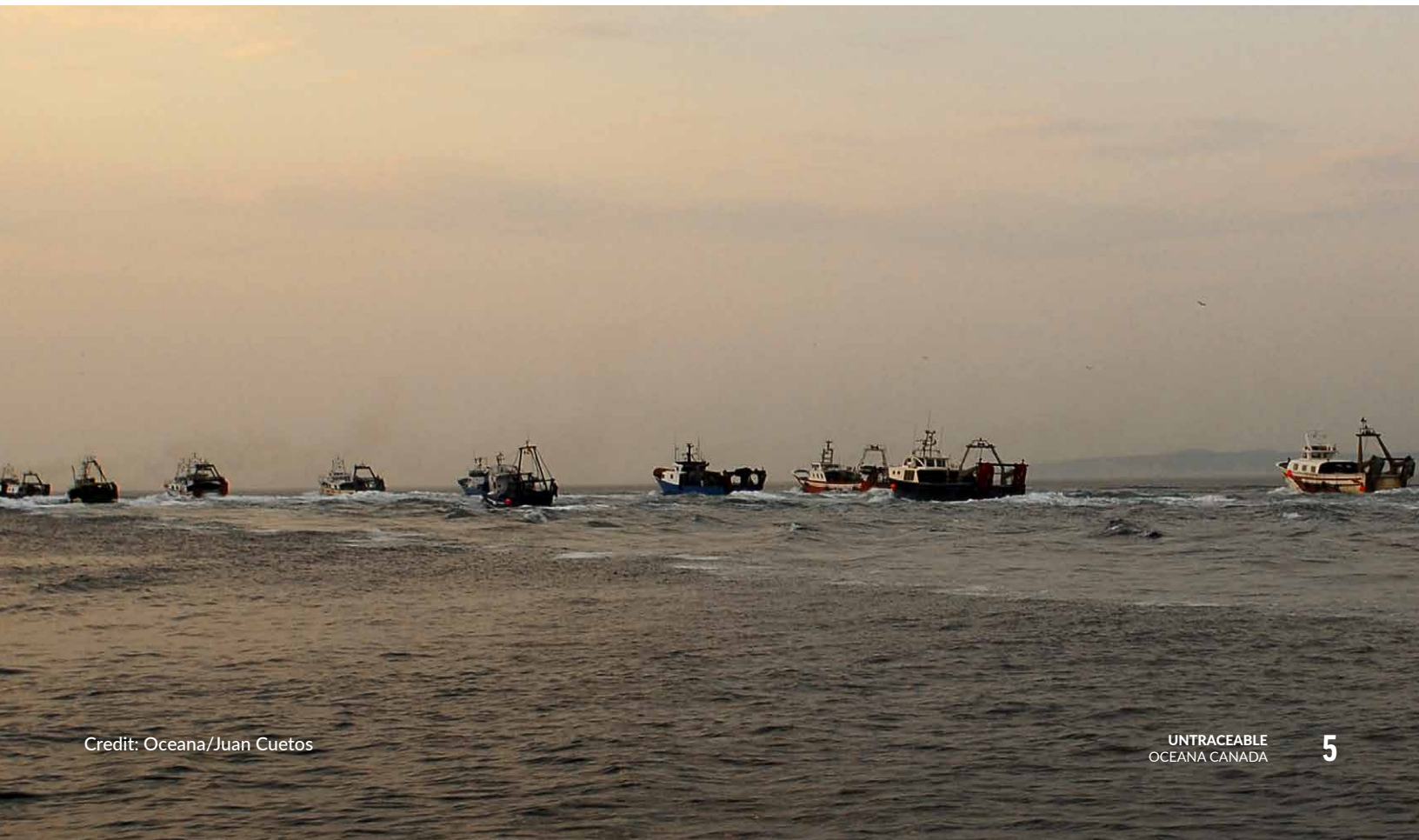
Unreported fishing

Fishing that has not been reported or is misreported to the relevant authority or RFMO, in contravention of their laws and regulations or measures.

Unregulated fishing

Fishing that occurs in areas or for populations with no conservation or management structures in place, or by vessels flying flags of convenience (i.e., the flag of a country other than the vessel's ownership).

[‡] The full United Nations Food and Agriculture Organization definition of illegal, unreported and unregulated fishing is available at <http://www.fao.org/iuu-fishing/background/what-is-iuu-fishing/en/>.





Credit: Oceana

IUU fishing includes activities referred to as serious violations in the United Nations Fish Stocks Agreement, such as fishing without a valid licence, misreporting catch data, falsifying or concealing the vessel's identity or itinerary, or obstructing the work of inspectors or enforcers.

Although it is often discussed as occurring in the developing world,^{2,3,4} IUU fishing is a global phenomenon with global impacts. Due to their scale and serious impacts, these practices are among the most serious threats facing the oceans today, posing huge risks to the health of the oceans, wild fish populations, human rights, consumers and honest fishers around the world. They also have significant economic repercussions, both in Canada and globally.

Commercial IUU fishing in Canadian waters is relatively uncommon compared to other countries, but it does exist. It includes intentional and unintentional misreporting such as underreporting to meet quotas or misidentification of species, discarding or harvesting undersized fish, or fishing in a restricted area.^{5,6}

Illegal fishing is a pervasive issue around the world, however, and 63 per cent of the wild-caught seafood products consumed in Canada are imported.⁷ This means that illegally caught seafood is almost certainly being imported into Canada's seafood supply.^{8,9}

Global IUU fishing catches are estimated at 26 million tonnes annually, representing about 30 per cent of the global marine fisheries volume and valued at between \$10-\$23 billion USD.^{10,11}

Without import control measures, such as requiring catch certificates that prove a product's legality, Canada is supporting global illegal fishing by importing illicit seafood products, even if importers are purchasing them unwittingly.

The lack of transparency in Canada's seafood supply chains means that these products can make their way into the Canadian market by taking on false, legal identities, and continued demand supports IUU fishing practices around the world. Canada's current requirements for seafood traceability lag behind those of similarly developed nations,¹² increasing the potential for illicit seafood products to end up on Canadian grocery store shelves or restaurant plates.



Credit: iStock, electravk



Right now, an endangered species of fish caught by modern slaves on a vessel fishing illegally can make its way onto Canadian supermarket shelves with no way for consumers to know its true origin. Canadians deserve to feel confident that their seafood is safe, honestly labelled and legally caught.



Credit: AL

Economic costs

Oceana Canada commissioned a study by leading fisheries economists at the University of British Columbia to understand the harmful impacts of IUU fishing on the Canadian economy and Canadian fisheries, and how to counteract them. This report, and the data presented here, draws from that study – *Impacts of Illegal, Unreported, and Unregulated Fishing in Canada* (Travis C. Tai, Sydney Ascione, Nicolas Talloni and U. Rashid Sumaila).

Canada's commercial fisheries sector generates an estimated landed value of around \$354 million annually from unreported catches, almost 14 per cent of the \$3.88 billion total annual landed value for marine fisheries.[§] This results in estimated annual losses in tax revenues of \$93.8 million.

Because these estimates of tax revenue loss are based on the landed value, they do not include the potential tax revenue loss as these seafood products proceed through the supply chain – the true economic impact is likely much higher.

On top of this, Canadians are spending up to \$160 million a year on seafood derived from IUU and undocumented fishing, including up to \$23.5 million on imported products.

[§] This estimate is based on reported market prices, though unreported catch may be sold at different prices if it enters the illegal market or if it illicitly enters the formal seafood market.

The revenue from illicit seafood supply chains affects market prices and supply, reduces tax revenues and harms those who work in the seafood industry because of lost income and employment opportunities connected with fishing, processing and sales. Income may be paid out in illegitimate markets, but it takes the place of income to legitimate workers who would be officially registered to work and pay taxes.

The potential lost revenue for Canadian fishers is estimated at \$379 million.

These economic costs are only starting points: they do not take into account the cascading effects on marine ecosystems or the value of lost tourism and the reduced well-being of coastal communities that can accompany the depletion of local fisheries.

Implementing a boat-to-plate seafood traceability program is a critical step toward tackling IUU fishing, preventing seafood fraud and mislabelling and redirecting lost financial contributions to the legitimate economy. This would allow consumers to trust that the seafood products they buy in Canada are safe, honestly labelled and legally caught.

Most of the wild-caught, marine seafood products consumed in Canada are imported, including from countries that have been connected with illegal fishing practices.

COUNTRY	SEAFOOD SUPPLY TO CANADA (TONNES)	PROPORTION OF CANADA'S SEAFOOD SUPPLY	LANDED VALUE (2010, USD)
Canada*	279,416	37%	\$572,803,156
United States	219,839	29%	\$469,487,982
Peru	52,242	7%	\$12,321,447
Thailand	46,843	6%	\$45,901,454
China	34,727	5%	\$36,423,925
Chile	21,949	3%	\$15,280,812
Vietnam	17,042	2%	\$14,991,404
Mexico	11,150	1%	\$15,782,107
Taiwan	8,932	1%	\$17,086,191
Norway	8,435	1%	\$6,963,980
Iceland	6,732	1%	\$6,143,969
Other countries	53,983	7%	\$68,631,054
Total	761,290	100%	\$1,281,817,481

* Net landed value of Canadian seafood consumed in Canada after exports are removed.

Funding illicit fishing

A recent study published in *Science Advances* analyzed the potential losses to Canada's legitimate seafood sector and associated economy due to illicit trade¹³ and estimated that:

- Industrial fishing is responsible for 50-80 per cent of the unreported catch that enters the Canadian market via illicit trade;
- \$24.5-\$39.6 million in tax revenue is lost due to illicitly traded seafood products;
- \$98.7-\$160 million is lost to legitimate seafood sector workers' incomes; and
- \$304-\$493 million is lost to the wider economy.

The same report assessed the amount and value of imported illicit products likely entering Canada's seafood supply chain. It estimated that Canada is currently importing between 1,954-3,475 tonnes of illicit seafood products annually, which means Canadians could be spending between \$13.2-\$23.5 million per year on these products. The U.S., which is the biggest source of imported seafood into Canada, contributes 27.3 per cent of Canada's total imports. It is estimated that between 520 and 878 tonnes of this is illicit products, valued between \$2.12 and \$3.57 million.¹⁴



Credit: Jeffrey Waldron

Featured in the 2018 documentary *Ghost Fleet*, Thai activist Patima Tungpuchayakul (pictured on the right) has freed thousands of men enslaved in on fishing vessels in Asia.

Human costs

The human rights violations associated with illegal fishing are as egregious and horrifying as those in the more well-known illicit trade of drugs and weapons. Human trafficking, slavery, migrant smuggling and abusive working conditions have all been consistently linked to illegal fishing.^{15,16} Vulnerable individuals, such as undocumented workers, are coerced, kidnapped and sold to work in the fishing sector against their will.¹⁷

Migrant workers can have their passports or documents taken from them and they may be kept on vessels as forced labourers or indentured slaves in appalling conditions. Workers suffer confinement, physical and verbal abuse and a lack of food and clean drinking water.^{18,19}

Testimonies from trafficked workers describe practices of transshipment – the practice of transferring catch from one vessel to another at sea – drug smuggling, organized crime and shark finning aboard their vessels.²⁰ In multiple studies done on

fisheries in Thailand, Canada's third-largest source of imported wild-caught seafood, labour abuses and human trafficking were found to be widespread in their fisheries sector.²¹ Without robust traceability in place, Canada is helping to perpetuate these abuses.

Right now, fish and seafood products caught by individuals who have been trafficked into modern slavery can currently make their way onto Canadian supermarket shelves, simply because effective safeguards to prevent this have not been put in place.

Social and environmental costs

In coastal communities that depend on fisheries income, illegal fishing and the illicit seafood trade can affect livelihoods, food security and lower the overall quality of life.²²

IUU fishing disrupts effective fisheries management and can cause fish populations to collapse. In a dramatic example of this, the Patagonian toothfish experienced high rates of illegal capture and in 1996-97, 32,756 tonnes of authorized catch were outweighed by an estimated 42,000 additional tonnes of IUU catch. After only 20 years of commercial exploitation, toothfish populations off Argentina and South Africa were depleted.²³

The threat of depleting fish populations can lead to reduced quotas for legal fishers as fisheries management bodies seek to compensate for the IUU fishing that is hurting these populations. Reduced catch numbers in turn leads to reduced incomes, decreased employment and higher operating costs.²⁴

The indirect economic impacts of unreported fishing pose significant threats to revenue throughout the seafood value chain, including reduced local demand for fishing equipment and processing, packaging and transport services.²⁵ Seafood industry workers face fewer employment opportunities and lower household incomes.²⁶ Fishing communities lose revenue usually brought in by landing fees, licencing fees and taxes payable from legal and reportable catches,²⁷ as well as losses to port and export revenues.²⁸

In Somalia, which exports fisheries products to Canada, estimates suggest that if illegal and unreported fishing was eliminated, there could be as much as a six per cent increase in gross national product, resulting in a \$91.5 million USD benefit.²⁹



Seafood fraud and mislabelling

Canada's seafood traceability requirements lag behind other developed nations. The European Union implemented a catch certification scheme for all marine wild-caught fish entering the EU market in 2010, while the U.S. has had a catch documentation requirement for certain at-risk species in place since 2018.

Countries in the EU require that key data elements follow seafood products throughout the supply chain and appear on product labels, including the species' scientific name, common name, fishing gear used, a unique identifier, production method and the geographical catch area.

In comparison, Canada's policies only require that products be traced one step forward and one step back in the supply chain and that the label shows the common name and the country where the last substantial transfer along the seafood supply chain occurred.

Comparison of seafood labelling requirements between Canada and the EU

CANADA

- 1** — **MACKEREL**
\$7.80
Net Wt/Ct: 0.250 k
Business name and address: xxx
- 2** — *Product of United States*
Best before: 9/12/20

REQUIREMENTS

- 1** Common name
- 2** Country of where the last substantial transformation occurred

EU

- 1** — **MACKEREL** (*Scomber scombrus*)
€5.40
- 2** — Trawls
Net quantity: 250g
Business name and address: xxx
Ireland
XX-YYY-ZZ
EC
- 3** — Caught in Celtic Sea North
- 4** — Use by 9/12/20
- 5** — Keep at 0 to 2°C

REQUIREMENTS

- 1** Commercial designation (or common name) and scientific name
- 2** Fishing gear category
- 3** Identification mark
- 4** Production method
- 5** Catch area

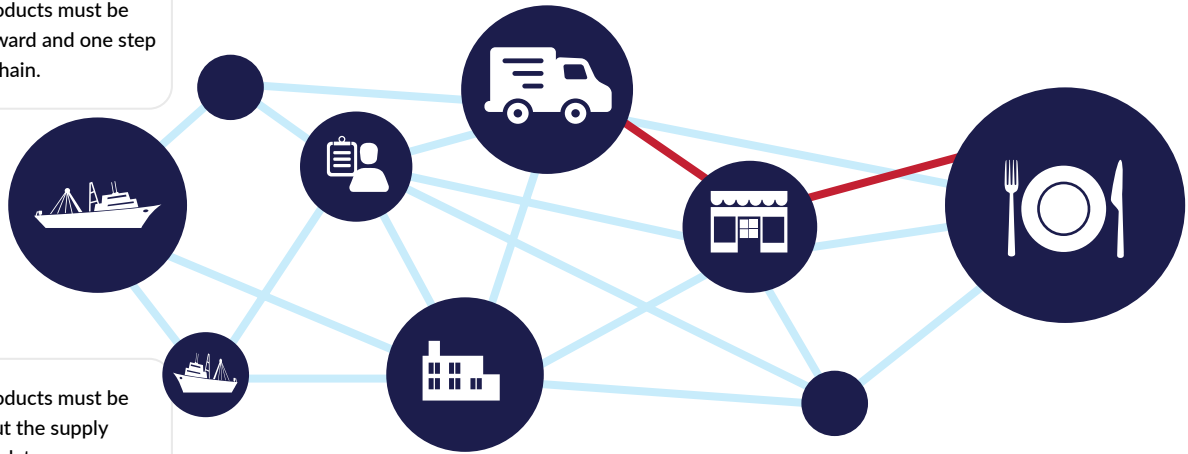
Comparison of supply chain traceability between Canada and the EU

CANADA

REQUIREMENTS: Products must be traced one step forward and one step back in the supply chain.

EU

REQUIREMENTS: Products must be traceable throughout the supply chain, from boat to plate.



A 2019 report from the EU found that “one step forward, one step back” traceability was ineffective for verifying products quickly and that it was not able to function as a framework that ensured both food safety and legality.³⁰

Canada’s insufficient labelling requirements mean that Canadian seafood consumers are not provided with the information they need to make informed purchasing choices,³¹ which is especially concerning given that the majority of seafood consumed in Canada is imported.^{32,33}

In a study across six Canadian cities between 2017-2019, Oceana Canada found that 47 per cent of 472 seafood samples in Canadian grocery stores and restaurants analyzed using DNA testing were mislabelled, of which 34 per cent were an entirely different species than what was on the label.³⁴

Seafood mislabelling can be a way for IUU products to gain a new identity. Canada does not require that imported seafood include information needed to determine its origin, legality and sustainability status. Seafood trade data in Canada is mostly reported by common names (e.g., hake, sardines and anchovies), species-groups (e.g., crustaceans, molluscs and fish) and generic products (e.g., fish fillets, fish meal and fish fats). This allows multiple species to be reported under the same name or group,

rather than with a specific scientific name, which reduces the transparency and usefulness of trade data. For example, there are at least 122 different species of anchovy, 14 species of hake and 21 species of sardine globally.

Seafood trade data includes an additional category known as “not elsewhere specified” (NES), which serves as a catch-all for all species groupings not elsewhere specified in the data.³⁵ About 30 per cent — 150,000 tonnes — of total annual seafood imported into Canada is reported as NES, making it impossible to distinguish one species from another. Weak requirements such as these place consumers at risk of exposure to allergens and toxins from consuming unknown species. In addition, Canada does not require that imported seafood be identified as sourced from aquaculture or wild fisheries, making it harder again for consumers to make informed choices and further muddying the transparency of Canadian seafood supply chains.

Mislabelled seafood can perpetuate demand for vulnerable species by presenting a false image of abundance if a cheaper, more abundant species is mislabelled as a species at risk. Mislabelling can ultimately prevent the shift toward more affordable, sustainable and traceable products. Without policies that ensure transparent seafood supply chains, unsustainable and potentially IUU-derived seafood will continue to be pervasive in the Canadian seafood market.

Improving seafood transparency

Canada can improve transparency and reduce IUU fishing in domestic seafood supply chains through improved fishing monitoring, control and surveillance. Implementing a combination of proven best practices could pave the way for more sustainable fishing practices. Combining digital technologies and traditional methods of documentation (for example, onboard observers and electronic logging data) would improve transparency and reduce IUU fishing in Canada.

Global IUU fishing can only be eliminated if countries close their doors to IUU products. To stop illicitly traded products from entering Canada, and as part of a boat-to-plate traceability system, Oceana Canada has recommended that a Canadian import control scheme be developed to align with current globally recognized and proven best practices.

All imported products should be traceable back to their vessel of catch through electronic records, and key data elements covering the who, what, when and how of a seafood product must accompany it throughout the supply chain.

Credit: iStock, VLG



Acting to stop IUU fishing globally is in line with Canadian commitments and actions. The Canadian government has acknowledged that IUU fishing and seafood fraud are serious problems that must be addressed. The government also recently ratified the Port State Measures Agreement, an important international agreement aimed at preventing vessels that conduct IUU activity from entering a country's ports. It has also contributed funding to Global Fishing Watch, which uses satellite technology and data analysis to increase transparency in the ocean — for example, by detecting when fishing is happening where it shouldn't be, or if a vessel offloads its catch onto another vessel to launder it.



Credit: Juan Cuetos

Recommended best practices for an import control scheme**

1. Key Data Elements

WHO	Vessel name
	Unique vessel identifier (IMO number)
	Vessel flag
	International Radio Call Sign
	Information on importer/re-exporter
	Identity of the import company
WHAT	Product type
	The species name embedded in the FAO/ASFIS 3-Alpha Code
	Estimated live weight (kg)
	Processed weight (kg)
	Declaration and authorization of transshipment at sea
WHEN	Event date
	Catch area
	Authorization to fish
	Port of landing
	Processing location
HOW	Fishing gear or catching method

2. Scope and operational best practices

- All species are covered by the import control scheme;
- Import data is captured in digital format;
- A framework is in place that determines which authorities or industries should have the responsibility to make sure the data and information is legitimate;
- The importing market develops a robust risk assessment protocol and/or system to target at-risk imports; and
- Data exchange takes place between market states.

** Source: Environmental Justice Foundation, Oceana, The Nature Conservancy, The PEW Charitable Trusts, WWF. 2020. A comparative study of key data elements in import control schemes aimed at tackling illegal, unreported and unregulated fishing in the top three seafood markets: the European Union, the United States and Japan. Available at <http://www.iuuwatch.eu/wp-content/uploads/2020/01/CDS-Study-WEB.pdf>.

Recommendations

The federal government must act on its commitment to improve transparency throughout Canadian seafood supply chains by:



Requiring that key information follows all seafood products from the boat or farm to the point of final sale, including catch documentation for all domestic and imported seafood, in line with what is currently required by the EU and recommended by the United Nations' Food and Agricultural Organization;



Improving traceability verification measures such as DNA testing for species authentication and enforcement measures that include significant penalties to deter fraud; and



Improving seafood labelling by requiring that labels include the scientific species name, whether the fish was wild-caught or farmed, where it came from (geographic origin) and the type of fishing gear used.

Consumer support

There is strong support for seafood traceability in Canada. A 2020 Abacus Data study commissioned by Oceana Canada found that 94 per cent of Canadians support the government in its commitment to implement boat-to-plate traceability for seafood, with more than half of those polled strongly supporting it.

In addition, 80 per cent of Canadians say that improved seafood labelling standards, facilitated by traceability, would increase their confidence in purchasing seafood. As Canadian fisheries seek to rebuild post-COVID-19, including by growing the market for their products, traceability stands to increase consumer trust at home and ensure continued market access for Canadian products globally.

Boat-to-plate traceability will also protect Canadian fisheries and processors, as the public pays closer attention to the provenance of their food. In the same study, 49 per cent of respondents said that learning about Canada's current seafood traceability standards made them less likely to purchase seafood in the future.



Credit: iStock/Vershinin

Boat-to-plate traceability : a government commitment

In December 2019, the federal government committed to implementing boat-to-plate traceability. As of November 2020, however, no timeline has been put in place to develop or implement this system.

Without improved transparency and strong seafood traceability measures in place, the seafood on Canadians' plates could have been caught through illegal means that harm the ocean, human rights and the domestic and global fisheries sectors.

The government must act now on its commitment to implement a boat-to-plate traceability system. Doing so will save Canadians millions of dollars each year and protect Canadian and global fisheries globally, allowing for better management practices and a return of abundance to our oceans.

Canadians deserve to know that all seafood sold in Canada is safe, honestly labelled and legally caught.

Add your name to Oceana Canada's petition urging the government to fulfill its commitment to boat-to-plate traceability. Go to oceana.ca/StopSeafoodFraud.

Sign up as a Wavemaker today, and follow us on Facebook, Twitter, Instagram and YouTube.



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“Canada has already demonstrated its global leadership in fighting the scourge of IUU fishing. The government’s support for new technology, including Global Fishing Watch’s public vessel tracking platform, and greater transparency and traceability in global fisheries is welcome and key to ending illegal activities that threaten the health of our ocean. Technology and leadership, combined with good policy, is a powerful combination. Implementation of the Port State Measures Agreement, the only binding international agreement targeting this illicit activity, is vital.”

– Tony Long, CEO of Global Fishing Watch

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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 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.