Emerging from the deep

Ranking supermarkets on seafood sustainability

2011 edition

GREENPEACE

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Photo by Paul Hilton

EXECUTIVE SUMMARY

Between 1950 and 2010, global fishing effort increased by 54 per cent.[1] During the late 1980s, catches peaked and have been on the decline ever since. As demand for seafood grows, the seafood industry's reliance on smaller fish, fish further afield and farmed fish to compensate for diminishing wild returns is raising red flags about our oceans' ability to cope. As consumers become evermore aware of sustainability and equitability, they learn that choosing green when it comes to seafood is not simple. Forced to navigate a sea of potential obstacles — including mislabelling, certification, conflicting information and health concerns — the need for the food retail sector to help ensure consumers only have responsible options is paramount. The results of this year's supermarket ranking report suggest Canada's major supermarket chains have taken this seriously and some have even taken it to heart.

This is Greenpeace Canada's third supermarket ranking report and its fourth year evaluating the progress of the country's eight major supermarket chains on seafood sustainability. All chains have made great gains, particularly around sustainable seafood policy implementation, labelling on seafood products, tracing fish from ocean to shelf and avoiding the sale of fish that are illegally caught. The progress has resulted in six of the eight chains emerging from the red zone, with Loblaw and Safeway now joining Overwaitea Food Group (OFG) in the passing category.

After falling to second place in 2010, Loblaw is back on top with a score of 62 per cent and a sustainability commitment that extends to all products containing seafood components, and even beyond its supermarkets to the larger sustainable seafood movement. Loblaw's ambitious annual action plans help rid the food retail giant's shelves of unsustainable products, and keep the company on track to its 2013 sustainability goal. OFG dropped to second place, but not due to lack of momentum. Despite its second place position, OFG is all about firsts as the first retailer to source a more sustainable alternative to net-pen farmed salmon last year and the first to stop sourcing Redlisted canned yellowfin tuna this year. OFG continues to provide more information to its customers and look into the sustainability of different product categories like sushi.

Safeway stayed in third place with revised and strengthened policies coming down the pipe and a newly formed partnership with SeaChoice to help with implementation. Safeway recognizes the need for ocean protection to complement sustainable sourcing and has pledged not to source from the proposed Ross Sea marine reserve, a pledge also made by Sobeys. Sobeys moved up in the ranking this year to fourth place with a strong commitment to work with fisheries in need of improvement, a focus on enabling its customers to track their seafood products back to the ocean and online videos to help educate consumers about the broader issues of fisheries and ocean management.

Metro tied Walmart for fifth place this year. Walmart has comparatively few Redlist species and continues to seek more certified products in order to meet its 2013 goal of sourcing only certified seafood. Following last year's report, Metro removed a number of Redlist species from sale, including Northwest Atlantic cod, making it the first chain to publicly express its concern for the stocks. Metro also made strides in 2010 to improve product labelling and signage in stores.

Federated Cooperatives Ltd. (FCL) and Costco held their positions from last year, but both are moving forward with their now solidified policies. With FCL's new partnership with SeaChoice, it is well positioned to revamp its seafood selection, but has a way to go before policy implementation is in full swing. The adoption of Costco's policy marked the last of the major retailers to formally recognize seafood procurement as a sustainability priority. The company remains in eighth place because its policy does not go as far as it needs to. However, if Costco's plans to address its large selection of farmed seafood result in more sustainable procurement of these products, then there is hope for Costco members.

With Costco's commitment, the gap between the top and bottom chains is beginning to shrink, but much work needs to be done before the bottom two companies are out of the red zone and the top companies are safely in the green. Canada's major supermarket chains must ensure that ridding their shelves of Redlist species doesn't stop in the seafood section, but extends to any product with marine or fish components, and all products must be carefully weighed against strong policy criteria. Now that traceability efforts have yielded pertinent information about where most chains' seafood is coming from, retailers need to look closely at whether those areas are ecologically sensitive like the Arctic or proposed marine reserves like the Antarctic, and commit to sustainable supply chains and preserving ocean life in no-take marine reserves. Product labelling in the fresh section has significantly improved since last year in some stores, but not all. Retailers should also encourage their suppliers to step up their labeling game in the frozen, canned and other product categories. The state of play on supermarket shelves is often not reflective of the efforts by the companies' seafood specialists, but over the coming year, we are hoping to see that change. With continued steps in the right direction, Canada's food retailers are starting to become advocates for a more sustainable seafood industry, and rightfully so as the key link between our oceans and our plate..

1 Anticamara, J.A., Watson, R., Gelchu, A. and Pauly, D. (2011) Global fishing effort (1950-2010): trends, gaps and implications. Fisheries Research 107: 131–136 www.seaaroundus.org/researcher/dpauly/PDF/2011/JournalArticles/GlobalFishingEffort.pdf

CONTENTS

Minke whale swimming in the Arctic Ocean. Photo by Nick Cobbing

INTRODUCTION

Redlist species are still lurking behind the seafood counter, chilling in freezers and found in cans stacked on supermarket shelves, but Canada's eight major food retailers have joined a growing sustainability movement to try to change that. The second half of 2010 and the beginning of 2011 have seen the most concerted effort to date by Canada's largest supermarket chains to send ripples up the seafood supply chain to producers and call for government action. Sustainable seafood policies are in the implementation phase, unsustainable seafood products on Greenpeace's Redlist are slowly being removed from sale and substantial efforts are being made to increase the traceability and transparency in the supply chain to help Canadians connect the seafood on their plates to life in our oceans.

Every year, the state of the oceans worsens. In June 2011, some of the most devastating revelations to date were released by a group of scientists in a report by the International Programme on the State of the Ocean (IPSO). According to the report, the cumulative impact of multiple stressors on our oceans, with overfishing at the top of the list next to climate change, could lead to "a phase of extinction of marine species unprecedented in human history," if the current level of destruction continues. According to the United Nations' Food and Agriculture Organization (FAO) latest *State of the World's Fisheries and Aquaculture* report, only 15 per cent of global fish stocks are underexploited or moderately exploited. About a third is overexploited, depleted or recovering from depletion. Many marine species are not recovering and have been added to the growing list of those threatened with extinction.

Scientists have estimated that in Canadian waters, marine fish species have suffered a 52-per-cent decline overall since the 1970s. Pelagic fish — species like sharks, swordfish and tunas that swim closer to the surface of the ocean — declined by 40 per cent, while demersal fish — species that hang out near the seafloor — experienced a greater decline of 58 per cent.[2] Many species declined by 90 per cent or more over the past few decades, including canary rockfish, American plaice, Atlantic halibut, Acadian redfish, Atlantic bluefin tuna and Atlantic cod.

Thirty-eight species of marine fish are now threatened with extinction in Canada. The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) has assessed these species and recommended that they be legally protected under Canada's Species at Risk Act (SARA). This past spring, Atlantic bluefin tuna was the latest species COSEWIC recommended for protection. Affording these species legal protection by listing them under SARA would help relieve some stress on these stocks and give them a chance to try to rebuild. But scientists have warned that few populations recover rapidly and most show few or no signs of recovery for at least 15 years, so quick fixes characteristic of fisheries management regimes are not enough. Mismanagement and lack of enforcement has taken too great a toll and things have to change, now. Long-term recovery plans and ecosystem-based management are needed and the scientific community, environmental organizations and now even major food retailers are calling on the federal government to get to work, particularly on species like Atlantic cod.

The problem is far from unique to Canadian waters. Few ecosystems around the globe have been spared by overexploitation and destructive fishing. And despite pleas to diminish pressure and demand on the world's fish stocks, global consumption of seafood is on the rise. So too is global production. From 2007 to 2009, global fish production rose by five million tonnes. But with declining fish stocks, growth is attributed to increased aquaculture production, which further increases pressure on wild stocks through stocking farms with juveniles from the wild and through the use of wild fish in feed.

The global feed industry, which helps fuel the aquaculture, livestock and pet food industries, is centered on reduction fisheries that grind up forage fish into fishmeal and fish oil. Forage fish represent the link between the producer and the consumer, similar to the supermarket's role in the seafood supply chain, with the plankton as the producer and top predators like seabirds, salmon and whales as the consumers. Today, due to the massive amount of forage fish being removed from the oceans, the global fish reduction industry is playing Jenga with marine food chains by removing key building blocks from the centre, further threatening the integrity of the structure of these ecosystems and raising concerns around food security. If removed, eating further down the food chain, as is often recommended, will no longer be an option.

Next to overfishing, climate change and ocean acidification are the greatest threats to marine biodiversity. Ironically, with warming seas, species are moving towards the Poles, where marine ecosystems have been hit the hardest by climate change and where acidity levels will increase the most. With new open water in the Arctic, and commercially valuable fish moving north, the area is incredibly vulnerable to the next wave of overexploitation. Meanwhile, reduction fisheries have moved into the last pristine waters of Antarctica in search of krill, the base of the southern polar food chain.

Despite the continual bad news, key links in the supply chain are choosing to no longer be part of the problem, but work towards a solution. The oceans can save themselves; we just need to let them. What must happen? Action. To turn things around, we need political will; strong and proactive fisheries management; an abolishment of subsidies creating fishing overcapacity; a move away from large-scale, fuel-intensive and often highly destructive fishing methods to more selective gear types and fishing closer to home; cooperation in the supply chain; equitable fishing agreements; a global network of no-take marine reserves; bold commitments on cutting CO_2 emissions; a greater respect for marine species habitats and for the right to a clean environment; and hope for a healthier ocean.

And more than ever, we need to sell, buy and eat less fish.

2 Hutchings, J.A., Minto, C., Ricard, D., Baum, J.K., and Jensen, O.P. (2010) Trends in the Abundance of Marine Fishes. Canadian Journal of Fisheries and Aquatic Sciences.

RANKING OVERVIEW

How Greenpeace grades

Each year, Greenpeace contacts Canada's eight largest supermarket chains and requests that they fill out a questionnaire with detailed information about their seafood policies and purchasing practices. Greenpeace grades the supermarkets on the strength, comprehensiveness and implementation of their policies, the information they make available to customers and the number of harmfully fished or farmed Redlist species/groups sold. Each criterion (see criteria to the right) receives equal weighting. The Redlist criterion is the number of Redlist species/groups sold out of 15, represented as a percentage of Redlist species/groups not on sale. To get full marks overall, supermarkets need to have strong policies that are fully implemented and not sell any Redlist seafood. Once the supermarket profiles are written and the supermarkets have a draft score, each retailer has an opportunity to point out errors or provide additional information before the results and the report are finalized.

Ranking criteria

Sustainable seafood policy
Existence and implementation of a policy

Strong policy criteria
Criteria to exclude unsustainable fisheries or aquaculture

Supporting sustainable practices
Working with suppliers to find alternatives, supporting research

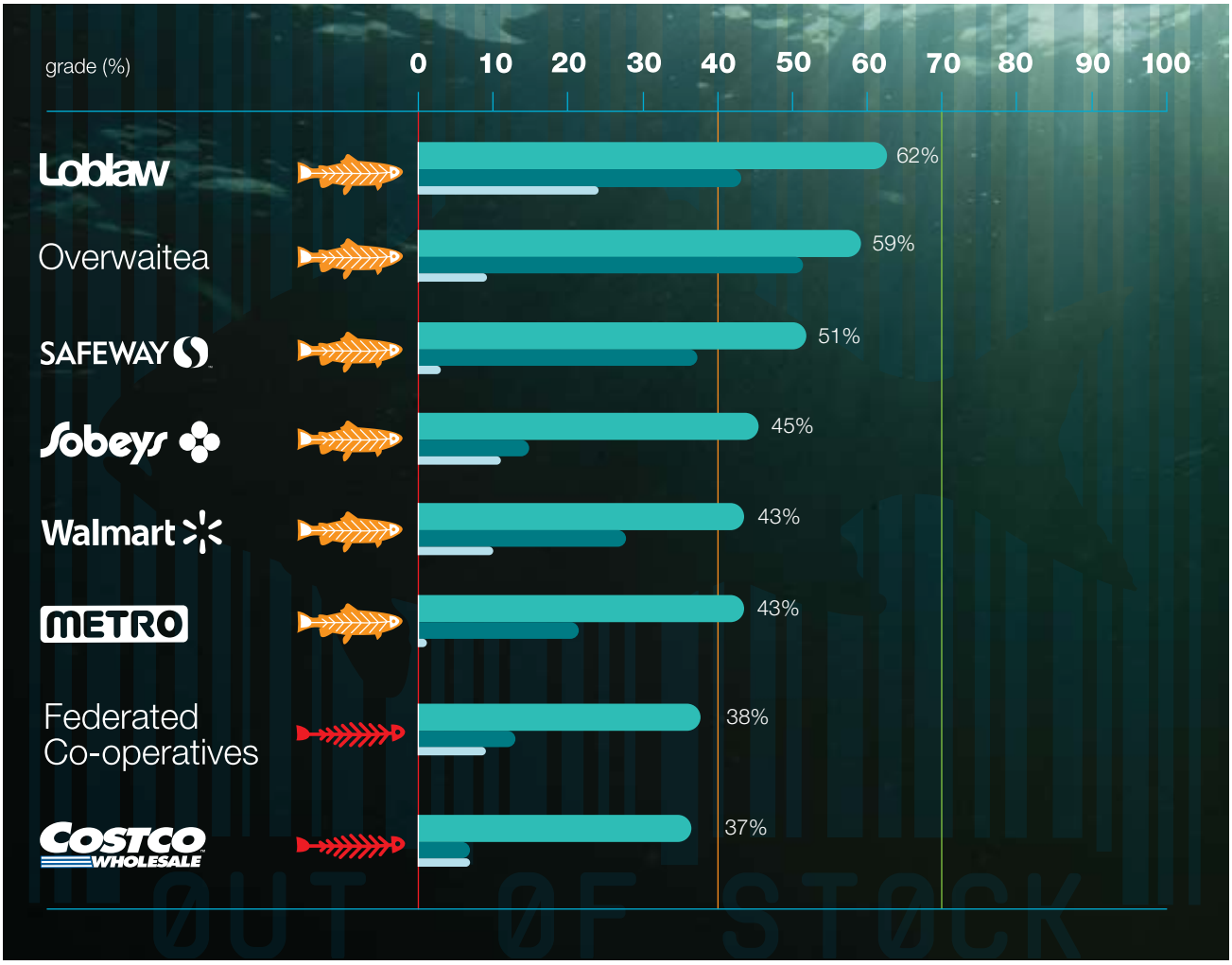
Traceability
Ensuring that seafood can be traced back to ship or farm

Product Labelling
Providing scientific name, catch and farming method and area

Removing Redlist species/groups
Progress on removal of 15 Redlist species/groups from sale

Raising awareness
Customer education, working with stakeholders on improvement of fisheries, undertaking audits on implementation of policies

2011 SUPERMARKET RANKING



THE REDLIST

The fish on Greenpeace's Redlist are there for many reasons. Generally, each species is included because the fishery or production method has negative impacts on the target species or other marine species, leads to ecosystem alterations, has negative social implications or is poorly managed. Species could also be on the Redlist because they are illegally fished.

Some Redlist species may be subject to more sustainable fishing or farming methods. For example, it is more sustainable to catch swordfish with harpoons instead of longlines. In such cases, retailers should ensure that these more sustainable choices are fully traceable and easily distinguishable through complete labelling.

For more information on the evaluation criteria for the Redlist, see our report, *Out of Stock: Supermarkets and the future of seafood* at www.greenpeace.org/canada/en/campaigns/seafood/resources.

ARTIC SURF CLAMS
Mactromeris polynyma

ATLANTIC COD
Gadus morhua

ATLANTIC HADDOCK (scrod)
Melanogrammus aeglefinus

ATLANTIC HALIBUT
Hippoglossus hippoglossus

ATLANTIC SALMON (farmed)
Salmo salar

ATLANTIC SEA SCALLOPS
Placopecten magellanicus

CHILEAN SEA BASS
Dissostichus eleginoides

GREENLAND HALIBUT
Reinhardtius hippoglossoides

NEW ZEALAND HOKI
Macruronus novaezelandiae

ORANGE ROUGHY
Hoplostethus atlanticus

SHARKS (many species)
Spurdog (piked dogfish, spiny dogfish) *Squalus acanthias,* porbeagle shark *Lamna nasus,* shortfin mako shark *Isurus oxyrinchus,* blue shark *Prionace glauca…*

SKATES AND RAYS (many species)
Thorny skate *Amblyraja radiata,* big skate *Raja binoculata,* longnose skate *Raja rhina…*

SWORDFISH
Xiphias gladius

TROPICAL SHRIMP AND PRAWNS
Penaeus spp

TUNA
Atlantic bluefin *Thunnus thynnus,* yellowfin *Thunnus albacares,* bigeye *Thunnus obesus*

SUPERMARKET SALES OF REDLIST SPECIES

The array of Redlist species on sale in Canadian supermarkets continues to shrink bit by bit every year. When *Out of Stock, Out of Excuses* was released in 2009, most chains were selling over half of the 15 species/groups on the list. Now, most chains are selling fewer than half. Progress by some retailers to remove certain popular Redlist species, such as yellowfin tuna, Atlantic cod, Atlantic sea scallops and Atlantic halibut, and switch to more sustainable sources of other species like haddock, has dropped the number of species sold across the board to two: tropical shrimp and prawns and net-pen farmed salmon.

Six Redlist species are no longer sold by any of the major supermarket chains. This year, Greenpeace is adding six new Redlist species to take their place. These species will be considered in the 2012 ranking. For more information about the new species on the Redlist, visit www.greenpeace.ca/redlist.

The following table illustrates the progress made by retailers over the past three years to remove these 15 unsustainable products from sale.

still sold in supermarkets

removed NW Atl. cod, including Canadian stocks of concern, but still sell bottom trawled from NE Atl.

no longer sold in supermarkets

discontinued sourcing but stock may not be gone from all supermarkets

LOBLAW COMPANIES LTD.

62%

Loblaw has regained its place at the top of the seafood sustainability ranking this year. Since last year's report, Loblaw has revised its sourcing strategy, completed an extensive investigation into its seafood sourcing and continued to remove Redlist products from sale. Loblaw is communicating its seafood initiatives to its customers and participating in wider consumer and public education through awareness campaigns and a new online sustainable oceans hub. Each year, the company sets out its action plan with priority species in order to work towards achieving its 2013 goal of only sourcing sustainable products. Loblaw's policy extends to all products containing marine ingredients, making the scope of its commitment reach further than almost all other seafood procurement policies in the food retail sector. Because of the company's size, its actions not only impact hundreds of stores across the country, but also impact a huge number of supply chains. Loblaw has its work cut out for it with eight species from Greenpeace's Redlist still sold in all of its stores, and additional species on sale in newly acquired banners. There remains a disconnect between the corporate vision and what's seen in many Loblaw stores, but if the company holds true to its 2011 action plan, this should soon change. Greenpeace encourages Loblaw to keep up the momentum and be diligent with its newly acquired chains, such as T&T, to ensure the company moves quickly toward meeting its commitment.

Banners

Loblaws®, Loblaw Great Food™, Real Canadian Superstore®, Zehrs Markets®, Zehrs Great Food™, Fortinos®, Your Independent Grocer®, valu-mart®, nofrills®, Wholesale Club™, Cash & Carry®, Provigo®, Maxi®, Maxi & Cie®, Club Entrepot®, Les Entrepots Presto®, Atlantic Superstore®, Dominion® (in Newfoundland and Labrador), SaveEasy®, Atlantic Cash & Carry®, Atlantic SuperValu®, Extra Foods®, T&T® and Osaka™.

Private label brands

President's Choice®, Blue Menu®, no name® and Seaquest®.

Sustainable seafood policy

Over the past year, Loblaw has been following its sustainable seafood policy's guiding principles by seeking external advice on decisions to source greener products and eliminate products of concern, while working to improve transparency and provide more information to customers. In May 2011, Loblaw updated its sustainable seafood commitment and developed a 2011 action plan in order to meet its year-end 2013 goal of sourcing sustainable wild-caught and farmed seafood. The commitment can be found on the Loblaw website at www.loblaw.ca/seafood and on the company's seafood website at www.oceansfortomorrow.ca. Loblaw's policy applies not only to fresh, frozen and canned seafood, but extends to cosmetics, pet food and other products containing seafood as an ingredient.

Part of Loblaw's vision for attaining 100-per-cent sustainable wild-caught and farmed products by year-end 2013 is through a commitment to shift its sourcing to products certified by the Marine Stewardship Council (MSC)[3], Aquaculture Stewardship Council (ASC) or an equivalent organization. Loblaw notes that it is close to achieving its goal of only sourcing International Seafood Sustainability Foundation (ISSF) canned tuna products by May 2011 as a step towards full MSC certification for all products. Currently, 95 per cent of the company's canned tuna is sourced from ISSF members.

Since the release of its commitment in 2009, Loblaw's seafood sourcing criteria have extended beyond simple commitments to achieve certification. Under the advisement of Dr. Jeff Hutchings, various specific stock health and ecosystem impact considerations are now factored into the decision making process. Loblaw also considers input from NGOs, including WWF and SeaChoice, on species selection. Loblaw's commitment is communicated to all suppliers, who must also sign a vendor buying agreement prohibiting human rights abuses. Farmed salmon suppliers are required through their agreements to inform Loblaw when escapes occur, and the company considers this in its product sourcing.

Seafood sustainability initiatives

In the latter part of 2010 and first half of 2011, Loblaw investigated and altered various elements of its seafood procurement. In October 2010, Loblaw stopped sourcing longline-caught swordfish and switched to harpoon-caught or pole and line sources. The company is evaluating FAD[4]-free purse seine supplies of tuna, and has identified canned tuna as

3 Greenpeace does not endorse the MSC, Aquaculture Stewardship Council (ASC) or any other certification schemes.

4 A Fish Aggregating Device (FAD) is a man-made structure consisting of objects floating at the ocean surface that attract fish that congregate under and around them. Purse seine fleets use FADs to increase the efficiency of catching tuna; however, other species including sharks, turtles and juvenile tuna are also attracted to FADs and often caught as bycatch in purse seine nets.

a priority product line for the coming year. In the frozen seafood department, Loblaw private label products are almost all MSC-certified, and the company has more than doubled the amount of MSC products available in stores in the past year. Ten Loblaws® grocery stores in the Toronto area have full MSC chain of custody for their fresh counters.

Loblaw is actively seeking alternatives to net-pen farmed salmon and is working with its suppliers to improve feed technology to reduce the use of wild fish inputs. Loblaw currently sources an Integrated Multi-Trophic Aquaculture salmon product, which it notes as "a step in the right direction."

Loblaw participates in a number of sustainable seafood forums, such as the Seafood Choices Alliance Seafood Summit, and invests in sustainability initiatives, including sponsoring a Chair of Sustainable Food Production at the University of Guelph, which has a mandate to support the development of sustainable aquaculture. Loblaw also participates in WWF's aquaculture dialogues.

Loblaw continues to work with WWF and government to encourage action on marine protection and industry innovation and improved management on two priority species, Atlantic cod and farmed Atlantic salmon. Loblaw is also becoming more engaged directly in fisheries reform by supporting projects that promote more sustainable practices and community-based management.

Labelling and transparency

In 2011, Loblaw initiated a proprietary vendor questionnaire to collect key sustainability information on all products containing seafood ingredients. The results of this questionnaire will help the company make more informed sourcing decisions, increase traceability of products and allow for more product information to be found on labels.

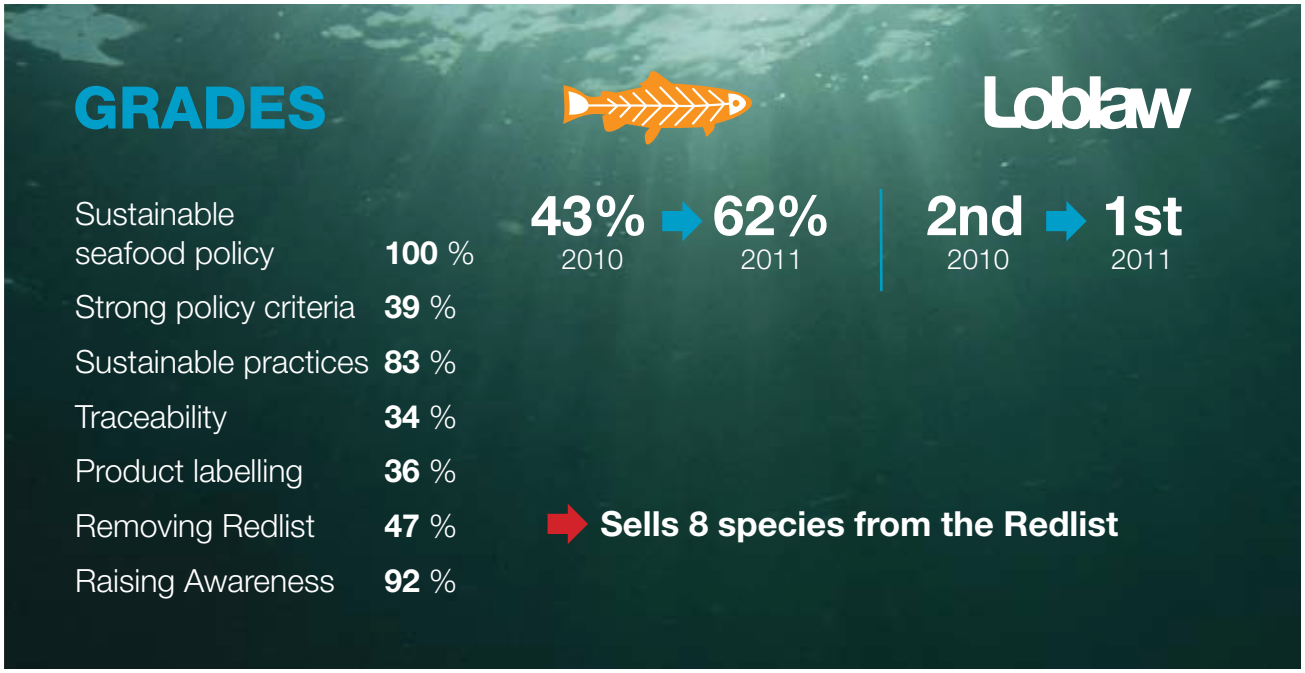
Loblaw has ramped up its customer awareness campaign with the launch of its new Oceans for Tomorrow website, www.oceansfortomorrow.ca. The website clearly outlines the issues the company plans to tackle, how it plans to tackle them and what customers should be aware of as the company works to transform its seafood selection. Loblaw also engages with the public through its sustainable seafood Facebook page, and with students through a school program in which the documentary film *The End of the Line* is shown in classrooms across Canada. Loblaw has also produced flyers for in-store distribution that direct customers to its new website.

Comprehensive product labelling providing customers with information on how and where seafood was caught or farmed has been lacking in Loblaw banner stores. However, improvements are planned to be made at the fresh counters, where the species' common name, catch method and origin will be displayed.

Redlist

According to Greenpeace surveys, Loblaw sells eight Redlist species: Atlantic cod, haddock, Atlantic halibut, net-pen farmed Atlantic salmon, Atlantic sea scallops, Greenland halibut, tropical shrimp and prawns and yellowfin tuna (canned and fresh).

Newly acquired T&T also sells Arctic surf clams and skates, as newly acquired stores have not fully implemented Loblaw's policy.



OVERWAITEA FOOD GROUP

59%

Overwaitea Food Group (OFG) continues to push ahead with the implementation of its sustainable seafood policy. The company has been coming up with innovative ways to encourage its customers to make greener purchasing decisions and educate them on why certain species should be avoided. In the lead-up to last year's ranking report, OFG's initiative to source closed containment farmed salmon peaked industry-wide interest in obtaining this product and helped contribute to a major drop in sales of harmful net-pen farmed salmon. OFG also broke trail this year as the first major food retailer to discontinue the sale of Redlisted yellowfin tuna. As the company expands its efforts into additional product categories, it must outline how it will ensure all products containing marine components are assessed and addressed.

Banners

Overwaitea Foods, Save-On-Foods, PriceSmart Foods, Cooper's Foods, Urban Fare and Bulkley Valley Wholesale.

Private label brands

Western Classics, Western Family, Value Priced and Good & Kind.

Sustainable seafood policy

Over the past year, with the help of SeaChoice, OFG has continued to implement the company's seafood policy by engaging stakeholders, offering customers more sustainable seafood options, reducing procurement of unsustainable seafood, educating and training staff, working to improve transparency and traceability, collecting and sharing information and urging policymakers to do their part to protect our oceans. OFG's policy can be found at www.owfg.com/sustainable-seafood.

OFG uses the SeaChoice/Monterey Bay Aquarium (MBA) criteria to assess its seafood and identify species that need to be removed or be substituted with a sustainable alternative. OFG is almost done assessing its fresh and frozen array, is moving into the shelf stable section and will then evaluate other products such as pet food. OFG has stated that it will eventually ensure all products meet its policy, but which product categories this will include has not yet been mapped out. OFG clearly communicates its policy to its fresh, frozen and canned seafood suppliers and encourages them to meet the company's sourcing requirements.

Seafood sustainability initiatives

OFG has committed to removing all Redlist products currently on the Greenpeace and SeaChoice lists by 2015. This goal has driven the company to find more sustainable options such as closed-containment coho salmon, which, as noted in last year's report, is already on sale in its stores. In early 2011, OFG discontinued canned and fresh yellowfin tuna through its house brand and national brands.

OFG has stopped promoting certain Redlist species, such as net-pen farmed salmon, while promoting greener alternatives. Net-pen farmed Atlantic salmon sales have dropped substantially and this product is no longer sold in all stores. Frozen Atlantic cod on sale is not from Canadian stocks or other unhealthy stocks. However, some of OFG's cod is still bottom trawled, which leads to red-grading of the species because of the destructive nature of the fishing gear.

OFG has become politically engaged by supporting innovation and policy reform in the aquaculture industry. OFG participates in various sustainable seafood forums and has been recognized by organizations such as SeaWeb for its initiatives.

Labelling and transparency

According to OFG's policy, the company seeks to obtain key product information from its suppliers and share it with customers. OFG, with help from SeaChoice, provides a sustainable seafood reference manual at its seafood counters. The guide offers details on species and their origin. OFG provides SeaChoice wallet cards to its customers and points customers to the SeaChoice website for additional information. Recently, OFG has expanded the sustainable seafood section of the company's website to include updates on its initiatives and information about red-graded seafood and more sustainable alternatives. Signage also promotes more sustainable seafood choices.

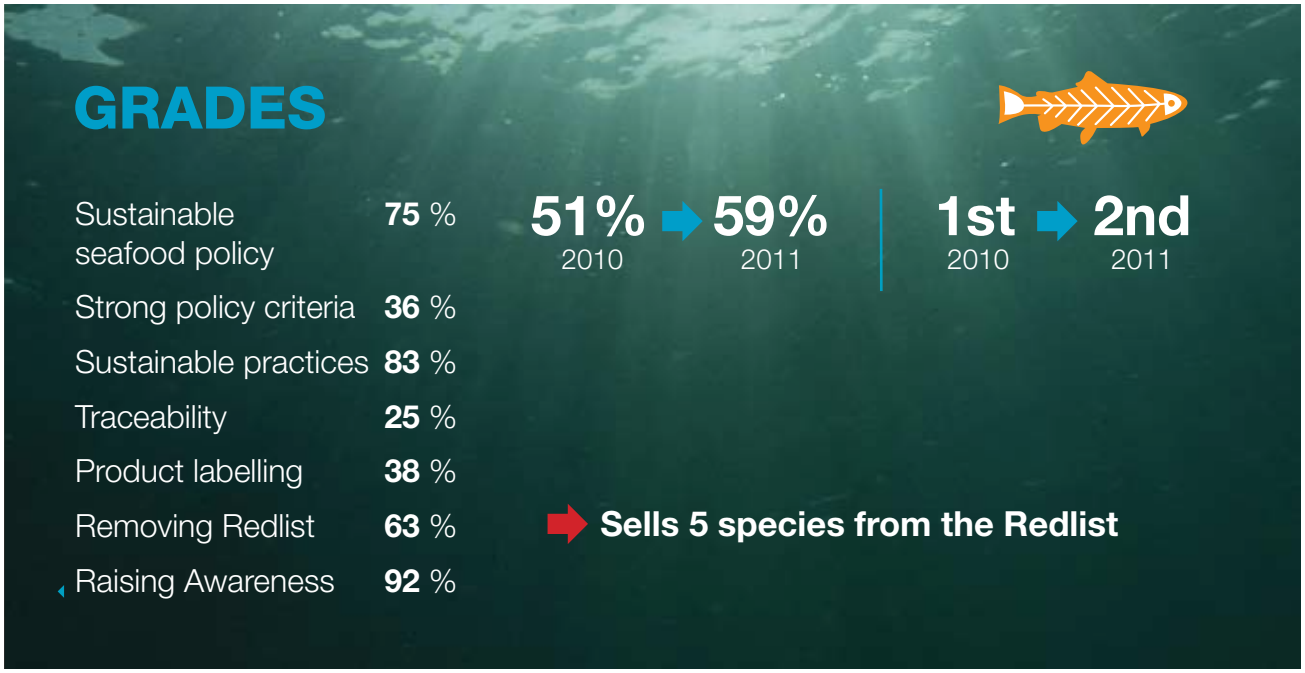
At the end of May, OFG launched its sustainable sushi program featuring the SeaChoice logo on green- and yellow-graded sushi products. This program will be accompanied by similar consumer-education platforms on other seafood found in stores with the use of social media. Coinciding with the launch of its sushi initiative, OFG will be bringing consumer and team member attention to an enhanced sustainable seafood section on the company's website. The new webpage will include resources for customers, including articles about why items are classified as red and information on alternatives to red-graded seafood.

On the products themselves, information on the method and area of catch/aquaculture operation have been lacking, but OFG committed this year to include this information, along with species name, on the fresh and frozen products. Fresh and frozen products also carry a green or yellow SeaChoice logo to indicate their sustainability raking; however, unrated and Redlisted species do not carry a logo.

OFG also conducts in-store school and nutrition tours, which include a seafood sustainability component.

Redlist

Greenpeace surveys found that OFG stores sell five Redlist species: net-pen farmed Atlantic salmon, Atlantic cod (bottom trawled), haddock, tropical shrimp and prawns and Atlantic sea scallops.



CANADA SAFEWAY

51%

Canada Safeway is holding on to its third place rank, while its parent company, Safeway US, moved into first place in Greenpeace US's ranking. Commendable seafood policy revisions coming out of Safeway US and a new partnership with SeaChoice offer promises of more sustainable canned tuna, comprehensive labelling on seafood products and additional information available to customers. Canada Safeway will apply all aspects of its parent company's sustainability commitments, including notable ones like the pledge not to source from proposed marine reserves such as the Ross Sea. Right before the release of this report, Canada Safeway stopped sourcing yellowfin tuna from its private label brands, though it has not vanished from stores completely. Canada Safeway has also become keen to address the unsustainable net-pen farmed salmon on sale and is exploring alternatives such as closed containment. Greenpeace encourages Safeway to act quickly on its new canned tuna policy and once released by removing yellowfin tuna sold by national canned tuna brands, and also act to remove yellowfin tuna found in the frozen seafood section. While policy revisions are underway, Safeway should also ensure all products containing marine ingredients are covered.

Banners

Safeway.

Private label brands

Safeway Select, Priority Total Pet Care, Eating Right, waterfront BISTRO, Value Red, O Organics and Lucerne.

Sustainable seafood policy

Canada Safeway is well on its way in implementing its sustainable seafood policy. With its newly formed partnership with SeaChoice, Canada Safeway is busy assessing its seafood according to the MBA criteria, and is actively working with suppliers to make sure they are aware of policy requirements and begin implementation.

According to Safeway's existing policy, all fresh and frozen seafood will be traceable and sustainable by 2015, meaning seafood red-graded by SeaChoice will not be sourced. Exceptions may include MSC-certified products and seafood from fisheries engaged in fisheries improvement projects.

Safeway US, Canada Safeway's parent company, is in the process of revamping its seafood policy to include a comprehensive and progressive canned tuna section. The details of the new additions will be released in the near future.

Seafood sustainability initiatives

Since the release of Greenpeace's 2010 ranking report, Safeway has removed bigeye tuna from sale. Through Safeway's pending canned tuna policy, the company has discontinued yellowfin tuna from its private label brand.

Safeway is also exploring participation in fisheries and aquaculture improvement projects to incentivize fisheries to move in a more sustainable direction.

After years of being the target of anti-farmed salmon campaigns, the company has become an advocate for industry reform. Safeway representatives have engaged the federal government, the industry and its suppliers on development of closed-containment facilities, removal of farms from sensitive marine areas and reduction of wild fish used in feed. Safeway notes that it subscribes to the principles of BAP of the GAA and is working with suppliers to achieve three-star aquaculture certification status.

Safeway representatives participate in various industry sustainability forums and regularly consult with various environmental organizations.

Not only is Safeway working to remove unsustainable seafood products from sale, the company is also pledging to support the protection of our oceans through its various commitments to support marine reserves in the US and globally. Safeway has pledged not to buy seafood from the Ross Sea to help protect the biodiversity of one of the world's last pristine marine areas.

Labelling and transparency

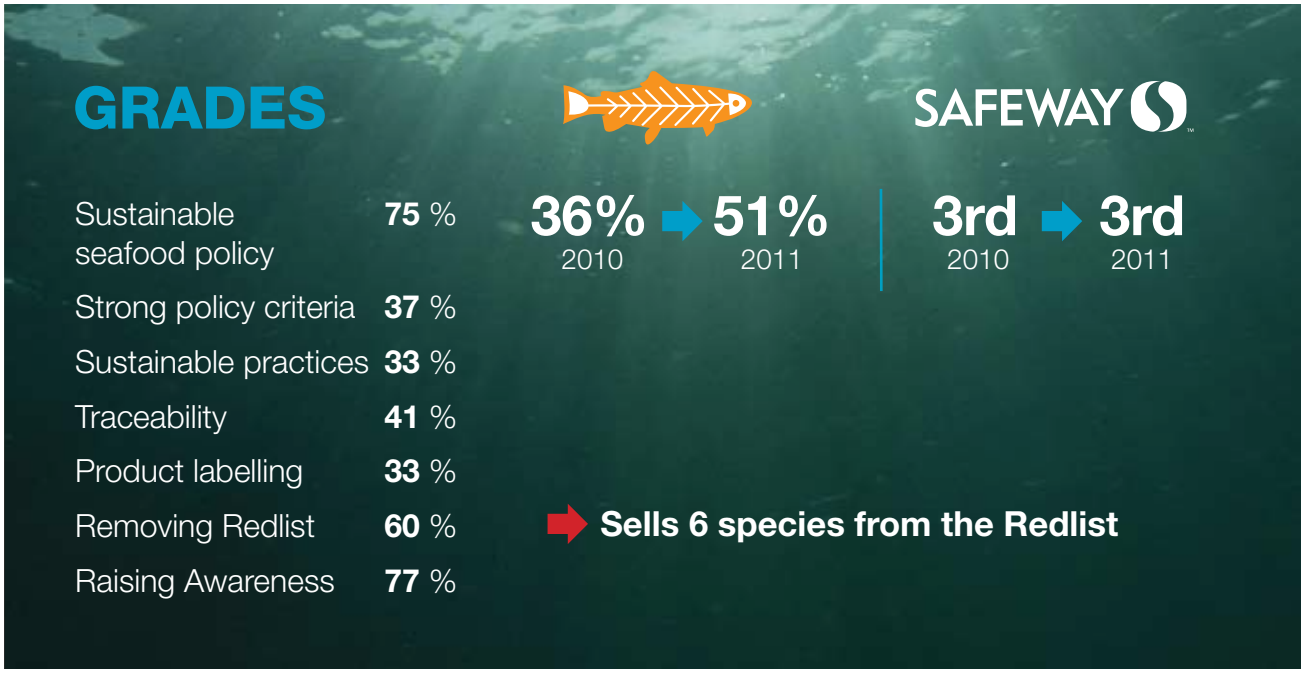
Safeway is in the process of developing an outreach program aimed at increasing and improving the amount of seafood product information available to customers. Over the next year, the company will be working towards including on the labels of 100 per cent of its seafood the common name, Latin name, whether it is farmed or wild, the catch or farming methods and the country of origin. The pilot project will also look into providing the UN fishing area, the name of the specific stock and whether the farmed species is naturally occurring, a domesticated breed or an introduced species. Additional information about each label component (e.g. description of fishing method) will be provided on a new website.

Products rated green or yellow by SeaChoice will carry the organization's logo and customers can refer to the sustainable seafood reference manual for information about the species at the seafood counter.

Currently in Safeway stores, brochures at the counter help to inform customers about the company's sustainability initiatives, and a soon-to-be updated website will keep them up to date on new developments. On the products themselves, however, key information is presently lacking.

Redlist

Canada Safeway sells six of the 15 species on Greenpeace's Redlist: Atlantic cod (bottom trawled), net-pen farmed Atlantic salmon, tropical shrimp and prawns, Atlantic sea scallops, yellowfin tuna and haddock.



SOBEYS

45%

After dropping in the ranking in 2010, Sobeys' actions over the past year have moved the company up the ladder again. The company recognizes the value of protecting vulnerable ocean ecosystems like the Ross Sea and removed Antarctic toothfish from its shelves for that reason. Sobeys is actively engaged with its suppliers and has undertaken impressive initiatives to ensure its customers will be able to track their seafood from ship to shelf. With Sobeys' focus on improving fisheries management through a more hands-on approach, the company is exploring where best to use its buying power to push for change on the water. While the company seeks to improve fisheries, Greenpeace is urging Sobeys to also recognize that the inherent vulnerability of some fish species such as Greenland halibut and the state of some fish stocks like yellowfin tuna requires immediate attention to allow stocks to recover to a sustainable level. Sobeys must also be clearer when it comes to how its policy will apply to other product lines that contain ocean creature ingredients.

Banners

Sobeys, IGA Extra, IGA, Needs, Price Chopper, Foodland, Thrifty Foods, Les Marchés Tradition, Western Cellars and Rachelle-Béry.

Private label brands

Compliments (with sub-brands including Compliments Sensations, Compliments Organic and Compliments Collection) and Signal.

Sustainable seafood policy

With the help of the Sustainable Fisheries Partnership (SFP), with which the company partnered in 2010, Sobeys has begun implementation of its sustainable seafood policy, which covers fresh, frozen and canned seafood.

In October 2010, Sobeys released its sourcing policy and announced that by 2013, all seafood species whose fisheries or farming operations cannot be improved will no longer be sold by Sobeys. Sobeys' policy emphasizes that sustainable also includes social considerations and that sourcing decisions will look at economical impacts on Canadian-based producers.

Sobeys maintains that continuing to source from problem fisheries strengthens its influence on changing them. Sobeys' top priority is improving fisheries and aquaculture management and engaging with its supply chains to achieve improvement on the water. Sobeys' focus on improvement plans takes a tiered approach by addressing the most urgent species first. The company uses the UN Food and Agriculture Organization's Code of Conduct for Responsible Fisheries as its model of sustainability.

The general sourcing principles that guide Sobeys include: conduct science-based assessments of seafood products; avoid all illegal sources of seafood; work with suppliers that adhere to Sobeys' sustainability requirements; improve fisheries and aquaculture operations of concern; source certified products when possible; improve traceability in the supply chain; support responsible and ethical labour and trade practices; and delist species as a last resort.

Sobeys relies on SFP and other scientific experts to help inform purchasing decisions. Various key indicators of sustainability are considered in the assessment process, including stock health, impact on other species and habitat, management regime effectiveness, use of wild fish in feed and amount of bycatch. For a complete list of the criteria considered and to view the full policy, visit www.sobeyscorporate.com/sustainability.

Seafood sustainability initiatives

Sobeys representatives have been actively engaged in a number of industry sustainability groups and have participated in various sustainable seafood conferences even before the adoption of its sustainable seafood policy. Also before the release of the policy, Sobeys removed four species/groups found on Greenpeace's Redlist: sharks, skates and rays, orange roughy and bluefin tuna. Though the company has stated that it seeks to go beyond relying on certification schemes as a stamp of sustainability, almost 50 MSC and BAP seafood products are sold under the company's Compliments private label brand.

Since Greenpeace's last report, Sobeys has developed and begun implementation of a tool that weighs the relative sustainability of its products to help its seafood buyers make more sustainable sourcing decisions. The company also hosted a

National Sustainable Seafood Summit for 150 of the company's suppliers to help communicate its policy's requirements.

Sobeys' main focus has been on initiating fisheries improvement projects under the advisement of SFP, and this summer will be meeting with potential partner fisheries. Sobeys is currently engaged in a B.C. wild salmon fishery improvement project, and is exploring other potential projects.

Sobeys regularly engages with the federal Department of Fisheries and Oceans (DFO) to advocate for change in fisheries and to provide feedback on issues DFO is working on.

Sobeys also supports the protection of key biodiverse marine areas such as the Ross Sea. Sobeys showed its commitment to protecting the Ross Sea by ceasing the sale of toothfish from the area.

Labelling and transparency

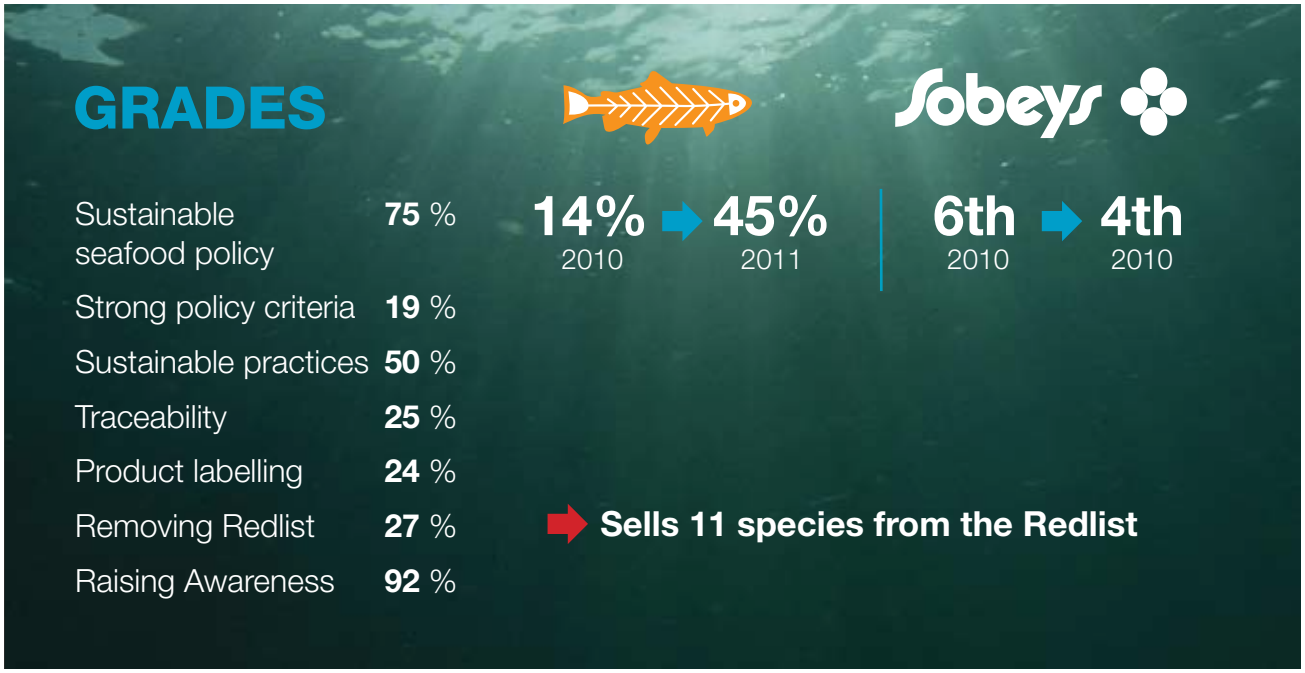
In order to increase transparency and be able to provide customers with more information about its seafood products, Sobeys set out to trace its seafood from sea to shelf. The company has used this information to conduct a traceability pilot program for customers in some stores in Western Canada and Ontario. In these stores, stickers are put on select items that contain a traceability code for the fish species. The customer can then input this code into a website, www.thisfish.info and find out where, how and by whom a species was caught. Sobeys also has plans to improve the labelling within its fresh seafood cases to include where and how species were caught or farmed, and its country of origin. The company is working to improve labelling on canned tuna products, but plans have not yet been finalized.

Sobeys shares information with its customers through its website and through video opinion pieces by various stakeholders and experts in the field of fisheries management. In June 2011, Sobeys released a video about working towards the sustainable management of B.C. wild salmon. The video can be viewed at http://www.sobeyscorporate.com/sustainability/mediacentre/sustainable_media.html

Sobeys is in the process of creating various staff training materials and rolling out a staff education program. Staff and seafood buyers take a sustainable seafood e-learning module and a quiz.

Redlist

Sobeys sells 11 of the 15 species on Greenpeace's Redlist: Atlantic cod, Atlantic halibut, haddock, yellowfin tuna, Greenland halibut, Arctic surf clams, Atlantic sea scallops, tropical shrimp and prawns, swordfish (longline), net-pen farmed Atlantic salmon and Chilean sea bass.



WALMART CANADA

43%

Walmart continues to make gains in achieving its 2013 goal of sourcing only certified seafood. Walmart sells the fewest Redlist species of the major retailers, with four of the 15 species/groups on sale. The number of certified products is growing in Walmart stores, but the company needs stronger sourcing criteria to ensure all products are held to the same green standard. Greenpeace urges Walmart to not rely so heavily on certification as an indicator of sustainable seafood, as certifying agencies can miss the mark with some species. Walmart also needs to make sure enough information is being provided on its seafood products, especially those that are not yet certified. It is still unclear if Walmart's sustainability commitment will extend to its numerous product categories that may include marine components such as pet food, health supplements, jewelry and cosmetics.

Banners

Walmart and Walmart Supercentre.

Private label brands

Walmart, Great Value, Equate, Special Kitty and Ol' Roy.

Sustainable seafood policy

Walmart Canada announced its sustainable seafood policy in April 2010, with a commitment to source only certified wild and farmed, fresh and frozen fish products by 2013. Walmart uses certification schemes developed by the Marine Stewardship Council (MSC), the Aquaculture Certification Council (ACC) and the Global Aquaculture Alliance (ACC) as indicators of product sustainability. To date, implementation of the policy has been focused on increasing the number of these products.

Walmart's policy also commits to sourcing 100-per-cent ISSF canned tuna, and the company has begun to work with its private label suppliers to better understand its tuna supply chain.

Walmart US released an updated policy in March 2011, requiring all suppliers to be certified by Walmart's preferred certification schemes or in the certification process by June 2012, and the definition was expanded from just fish to all seafood. Walmart Canada has not indicated whether it will follow suit.

Seafood sustainability initiatives

Walmart Canada operates what it calls a "sustainability value network" made up of Walmart buyers, executives, suppliers, environmental organizations and regulators with the goal of providing a more sustainably harvested seafood selection. Walmart also meets regularly with environmental groups.

Thirty-seven per cent of Walmart US's fresh and frozen seafood is now MSC certified or equivalent, and 40 per cent of its seafood listings are in the process of being MSC certified or equivalent. Walmart Canada estimates that percentages are in a similar range. Walmart has sought alternatives to certain Redlisted species such as haddock and Atlantic sea scallops.

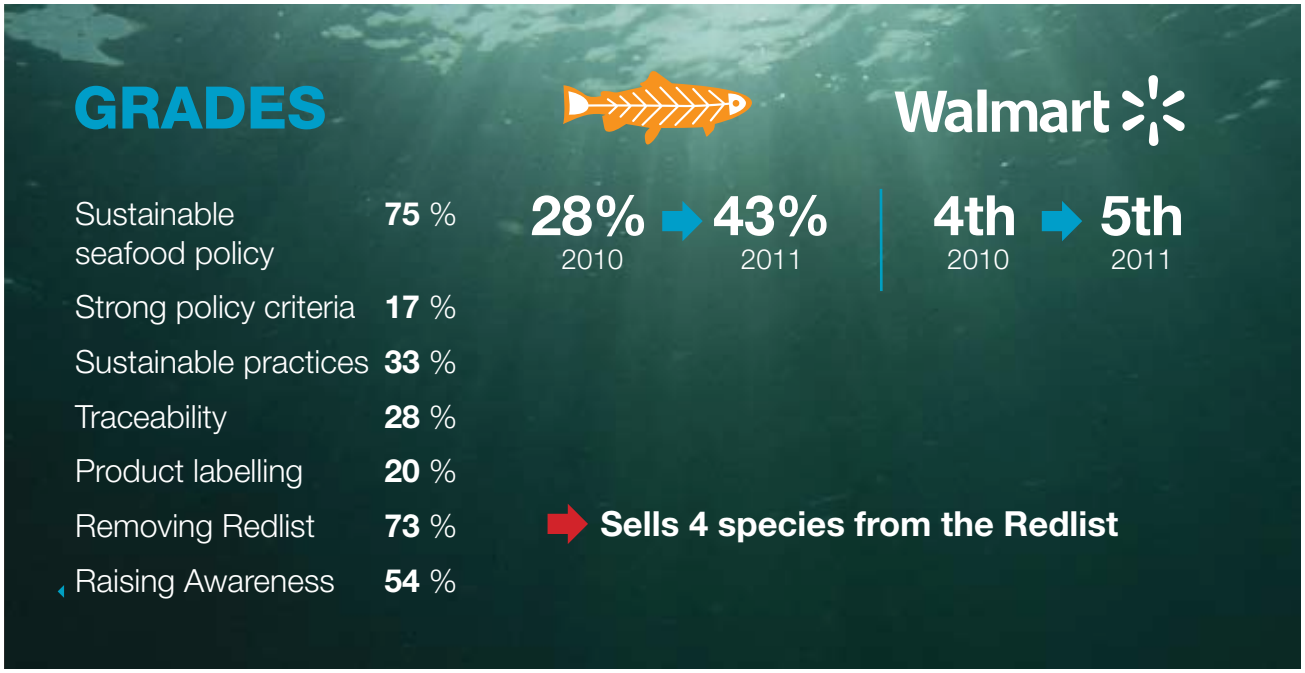
Labelling and transparency

Walmart labels wild fish that are MSC certified and farmed shrimp that are ACC certified. Most non-certified fresh products carry the common name, however, the company has not yet implemented plans to provide the common name on all products and indicate whether the seafood is farmed or wild. Method and area of catch or farming operation is not provided on seafood products sold at Walmart.

Walmart Canada shares progress on its sustainable seafood commitments with its customers and the public in its corporate social responsibility report, which can be found on the company website at www.walmartcsr.ca.

Redlist

Walmart Canada sells four of the 15 species on Greenpeace's Redlist: net-pen farmed Atlantic salmon, yellowfin tuna, tropical shrimp and Atlantic cod (bottom trawled).



METRO

43%

Metro has doubled its score from last year, reflecting the company's continued work to source more sustainable seafood products. Taking a phased approach, Metro is evaluating its fish by product category, with fresh products now completed and frozen underway. Metro made a commendable move last fall to remove Canadian Atlantic cod from sale because of ongoing concerns with the health of these stocks, in addition to removing a number of other Redlist species. Metro seeks to provide customers with key product information at the seafood counter; however, the company currently suggests alternatives that are not more sustainable in most cases. Metro has placed various Redlist species on a "continual improvement" list, and as the company moves toward its green goals it must ensure products that cannot be improved are removed from sale in a timely manner. Greenpeace encourages Metro to keep up the progress and clarify how policy implementation will impact other fishy products like pet food.

Banners

Metro, Metro Plus, Super C and Food Basics.

Private label brands

Selection and Irresistibles (with sub-brands for each).

Sustainable seafood policy

Following the adoption of Metro's sustainable seafood policy in May 2010, the company entered phase one of implementation with the evaluation of its fresh and frozen seafood to determine sustainability. Phase one evaluation of fresh seafood was completed in June 2011, and frozen evaluation will be completed by end of summer 2011. Phase two will begin with the evaluation of canned products. In January 2011, Metro hired a sustainable fisheries specialist who is charged with leading the company's sustainable seafood initiatives.

Metro has a sourcing decision-making process, including four criteria that the company considers when choosing new products to source or products to remove from sale. The criteria are: the health of the fish stocks, the use of responsible fishing and aquaculture methods, whether the product is traceable from ship to shelf and sourcing from local, artisanal fisheries whenever possible. Metro consults with various environmental organizations, external experts and stakeholders on the sustainability of its seafood selection. Metro's sustainable seafood commitment can be found at www.metro.ca in the corporate responsibility section.

Metro asked all of its suppliers to sign a trade agreement pledging to adhere to policy requirements and all new suppliers of fresh and frozen products must sign a sustainability form.

Seafood sustainability initiatives

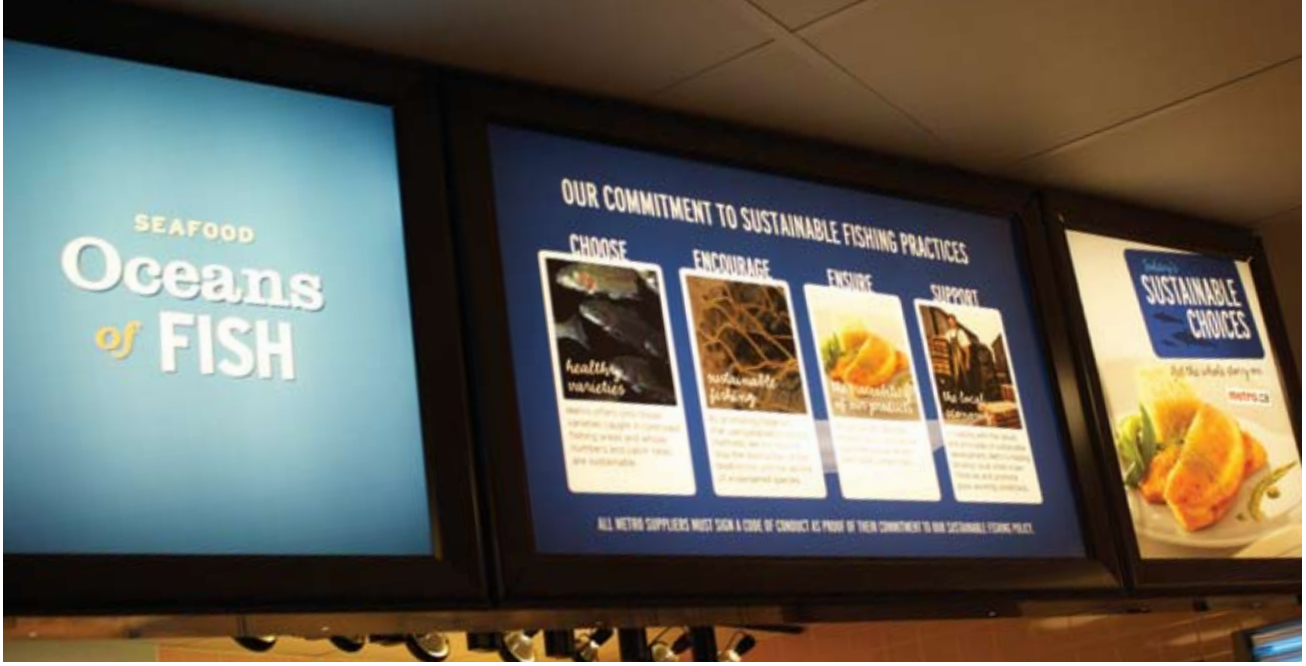
In September 2010, Metro removed from sale a number of species found on Greenpeace's Redlist, including northwest Atlantic cod, bluefin tuna, orange roughy, Chilean sea bass, New Zealand hoki, skates and rays. Metro was the first major retailer in Canada to draw attention to the dire state of the Canadian Atlantic cod stocks by announcing removal of the species from its stores.

Metro has been working to ensure the species in its fresh and frozen sections are what they say they are. Metro's seafood team has been comparing scientific names of species with their common names to ensure the two line up. Metro has already made changes to species that did not match, including rockfish and king crab.

Metro representatives participated in this year's Seafood Summit in Vancouver, and a sustainability conference entitled Apéro allant-vert in Quebec City.

Labelling and transparency

Last year, Metro introduced a more transparent labelling system in its stores, providing the scientific name, common name, country of origin, fishing area when possible and fishing method on products purchased at the fish counter. Once the customer has made his or her selection, this information appears on a



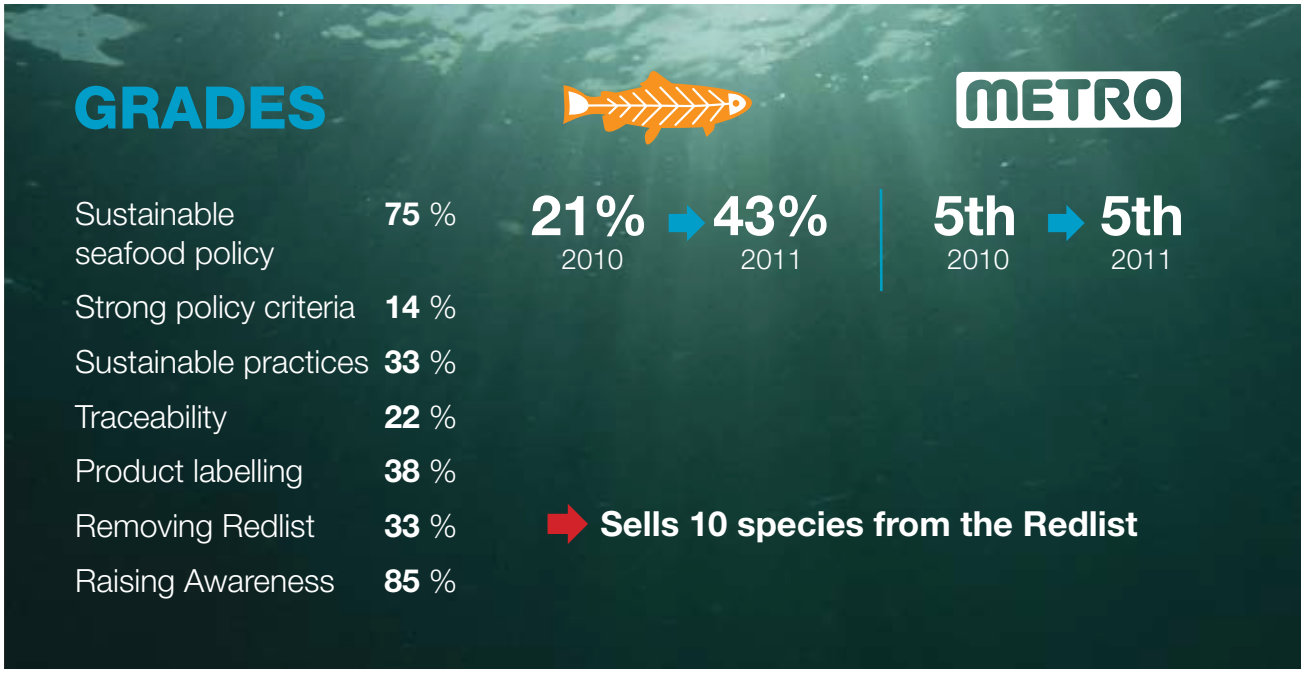
printed label that is stuck on the purchase. On the product signage at the seafood counter, the country of origin, the common name and whether the product is wild or farmed is provided.

Information on Metro's seafood policy is also available through the company's website and can be found in its weekly flyer and newsletter, on a flyer at the seafood counter and on in-store signage.

Each new Metro employee of the seafood department must watch a sustainable fisheries training video and complete a written test. Existing employees have been shown the video and are provided with materials to help them inform customers when asked. Head office updates the seafood department on new initiatives or developments through the company's intranet site, through email and in monthly meetings.

Redlist

Metro sells 10 species found on Greenpeace's Redlist: Atlantic cod (bottom trawled Northeast Atlantic), haddock, net-pen farmed Atlantic salmon, Atlantic sea scallops, yellowfin tuna, tropical shrimp and prawns, Greenland halibut, Arctic surf clams, Atlantic halibut and swordfish.



FEDERATED CO-OPERATIVES LIMITED

38%

Federated Cooperatives Limited (FCL) may have held its position since last year's ranking, but the company is starting to show movement in the right direction with policy implementation now underway. With the removal of species found on both SeaChoice's "Avoid" list and Greenpeace's Redlist, FCL is solidifying its commitment to switch its sourcing to more sustainable products. Improved labelling on its products and consumer education through the company's website are top agenda items this year. As FCL works through its seafood product lines, Greenpeace urges the company to focus its attention on products that require immediate attention in order to recover from depletion, such as yellowfin tuna. The company should also carefully consider how its policy will extend to all of its product categories as policy implementation timelines and targets remain unclear.

Banners

Co-op, Marketplace, The Grocery People, Super A Foods and Bigway Foods.

Private label brands

Country Morning and Country Morning Gold.

Sustainable seafood policy

FCL has started implementing its policy adopted in early 2010. The company's policy is based on principles that seek to provide customers with sustainable seafood options and reduce unsustainable products sold in FCL stores; enable customers to make more informed decisions when purchasing seafood through clearer labelling; and share information and enforce sustainability requirements to employees, suppliers and policymakers. FCL's policy can be found at www.fcl.ca in the "co-ops in the news" section of the website.

FCL is partnered with SeaChoice, whose sustainability criteria are used to inform decisions about what to buy and what to discontinue.

Seafood sustainability initiatives

With the help of SeaChoice, FCL has started to evaluate its seafood array and has identified species found on SeaChoice's "Avoid" list, as well as some on Greenpeace's Redlist, that will no longer be sold. These species are: Atlantic halibut, shark, skates, rays, blue marlin, Chilean sea bass, swordfish and orange roughy.

FCL has also begun to source MSC private label products.

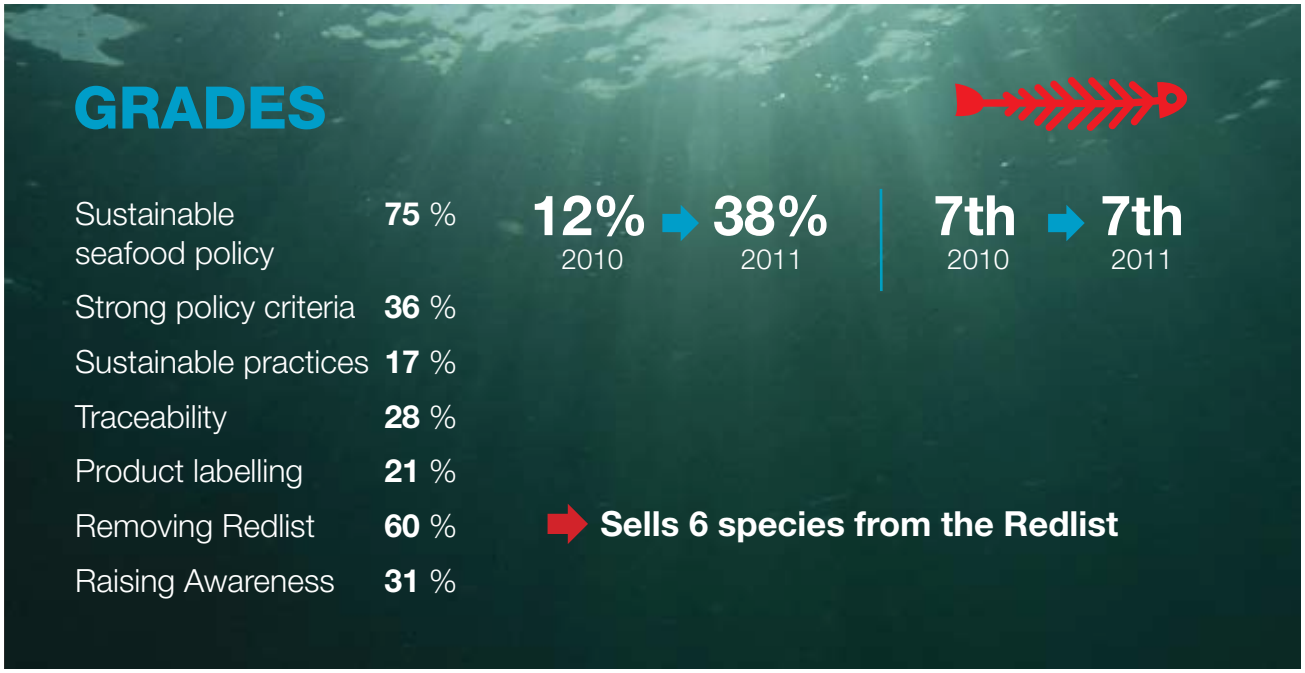
Labelling and transparency

FCL introduced its sustainable seafood initiatives to customers on its website and through an in-store flyer. FCL uses resources provided by SeaChoice to help educate customers about better seafood choices and products to avoid. The company directs customers to the SeaChoice website and will start to provide SeaChoice wallet cards in some stores.

When it comes to providing more information on each seafood product, FCL is looking into how it can improve labelling by indicating where and how species were caught or farmed.

Redlist

In its banner stores, FCL sells six species on Greenpeace's Redlist: Atlantic cod, net-pen farmed Atlantic salmon, haddock, Atlantic sea scallops, tropical shrimp and prawns and yellowfin tuna.



COSTCO CANADA

37%

Costco Canada was the last of Canada's eight major retailers to adopt a sustainable seafood policy in 2010, and although the company remains ranked last, positive change has begun in Costco stores across Canada. With the adoption of its seafood procurement policy and commitments to remove certain Redlist species from sale and push for improved aquaculture standards for the huge volumes of farmed species sold in Costco stores, the company's score increased five-fold over last year's. A lot still needs to change in Costco stores as labelling on seafood products remains inadequate and information on the company's seafood initiatives is absent from stores and the company's website. Costco's policy lacks clarity on how it will be applied to all products in its stores and how the company will work to address the remaining Redlist species on sale such as yellowfin tuna and Atlantic sea scallops.

Banners

Costco Wholesale

Private label brands

Kirkland

Sustainable seafood policy

In February 2011, following in the footsteps of its parent company, Costco Canada released its refined sustainable seafood statement. The policy can be found on the investor relations page of www.costco.com, but is not on the Costco Canada website.

Costco's policy applies to fresh and frozen seafood and canned tuna. Other shelf-stable products are not included in the policy. Costco partnered with the WWF to help implement its policy objectives, which include: ceasing sale of species at risk; identifying sustainable alternatives for at-risk or other unsustainable products; increasing the range of certified products MSC, ASC or equivalent); sourcing ISSF canned tuna products with the goal of switching to frozen and fresh tuna that meet these standards; and engaging in industry dialogues on sustainable seafood production.

Scallops and lobster tails

The policy stresses that seafood sourcing decisions must consider the "condition of fish stocks, protection of and respect for the marine ecosystem, governmental and regulatory agency guidelines and practices that will mitigate or limit environmental impacts associated with aquaculture."

Seafood sustainability initiatives

With its revamped policy, Costco announced it would discontinue certain at-risk species. In the US, these species included Atlantic cod, Atlantic halibut, Chilean sea bass, Greenland halibut, grouper (*Epinephelus morio*), monkfish (*lophius americanus*), orange roughy, redfish, shark, skates and rays, swordfish and bluefin tuna. In Canada, not all of these species were sold in Costco stores, so the species removals only apply to Atlantic cod and Atlantic halibut. Costco notes that these species will not be sold unless an MSC-certified fishery can be found.

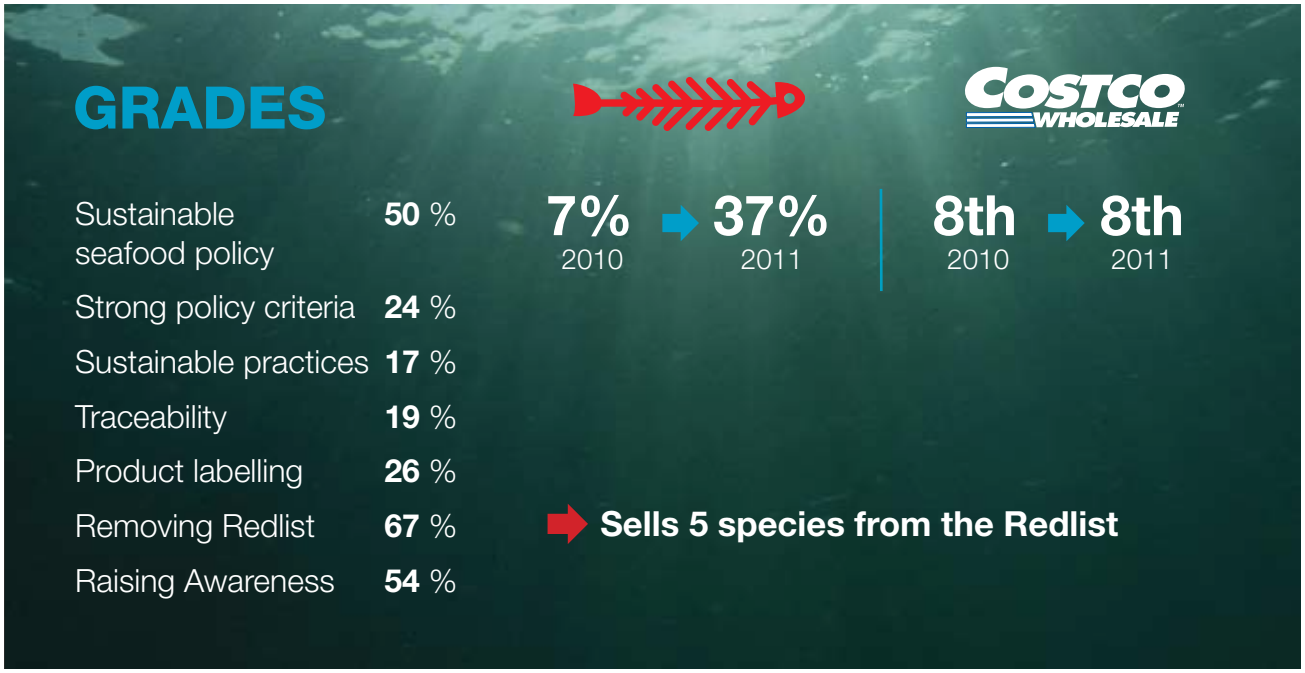
Costco is engaged in the Aquaculture Dialogues for tilapia, shrimp and salmon directly and through its suppliers. Costco has been evaluating its shrimp supply to determine whether the farms from which it sources are able to meet the Shrimp Aquaculture Dialogues' draft standards and eventually acquire ASC certification. Costco is in the process of switching all tilapia to standards that meet the Tilapia Aquaculture Dialogues and plans to finish this transition by the end of 2011.

Labelling and transparency

Costco informs its investors and members about its sustainability progress through its website, however, information is not easily accessible. Costco has not made a commitment to improve labelling on seafood products, and key information about where and how a product was caught or farmed remains absent.

Redlist

Costco Canada sells five of the 15 species on Greenpeace's Redlist: net-pen farmed Atlantic salmon, Atlantic sea scallops, haddock, tropical shrimp and prawns and yellowfin tuna.



THERE'S FISH IN MY WHAT?

As the sustainable seafood movement makes its way past the fresh seafood counters, into the frozen fish freezers and more recently down the canned seafood aisles, questions are being raised about the sustainability of other products that contain ocean-creature components. From pet food to supplements, sauces, soups and even margarine, consumers could be taking home Redlist species without even realizing it.

Pet food

Pets are huge consumers of seafood. According to a study published in the *Journal of Agricultural and Environmental Ethics* in October 2008, the global cat food industry eats up about 2.48 million tonnes of forage fish each year. That's comparable to the total yearly catch of wild fish for some countries.

In addition to forage fish, pet food often contains salmon, tuna, various species of white fish and other unspecified fish species that could have serious sustainability concerns. Pet lovers want the best for their animals, so for eco-conscious consumers it's natural to assume that would include sustainable fish in their pet's food.

The world's largest pet care company committed to provide just that, and this year the MSC certified the first pet food product to be sold in the UK. Selected Mars Petcare's Sheba and Whiskas product lines will carry the MSC logo and the company has committed to green all its product lines by 2020. Mars sells under the Whiskas, Pedigree and Cesar brands in Canada.

While Mars has made one commitment that is particularly commendable, asserting that the company will be "replacing all wild catch whole fish and fish fillet with sustainable fish byproducts and sustainable aquaculture," the vast majority of pet food comes from reduction fisheries, and whole fish are used to feed animals that were never meant to prey on marine species.

Sourcing pet food requires retailers to dig a little deeper into their policy commitments to determine whether having a product that is MSC certified is enough to warrant feeding fish to non-fish-eating species given the state of global fish stocks. Preference should be given to products that use trimmings from sustainable fisheries targeted for direct human consumption.

Dietary and health supplements

With growing attention on the perceived health benefits of increasing omega-3 intake through fish consumption, fish oil supplements containing fatty acids are a hot commodity.

Fish oil supplements can be made from a variety of marine species including cod (cod liver), salmon, tuna, seal, halibut, trout, herring, sardine, mackerel, menhaden and anchovy. Fish do not synthesize omega-3 fatty acids, but obtain them directly from algae or through the herbivorous organisms upon which they prey. Some of these herbivorous organisms, such as microalgae (e.g. spirulina, chlorella, schizochytrium) and seaweeds (e.g. kelp), are also being grown and harvested directly for supplement production as a vegetarian and vegan option.

Fish oil producers and brands have started to realize that they are not immune to the sustainable seafood movement. In order to meet the growing demand for sustainable products in Canada's retail sector, some brands, such as Gold Seal, have sought MSC certification for fish oil products including sockeye salmon. While clearly an effort is being made by some parts of the industry to take environmental impacts into consideration, concerns remain with the numerous products held to no environmental standards.

Retailers are aware that predatory species such as cod and tuna have suffered mass declines over the past decades and, because of their place in the food chain, may also have accumulated contaminants. Some of these species are known to contain significant quantities of persistent organic pollutants, such as PCBs, pesticides, dioxins and heavy metals like mercury. Supplements containing Redlisted and other species of concern should be removed from sale and sustainable alternatives should be sought.

Smaller, forage fish used to produce fish oils are by far the most commonly used in supplements. Increased pressure on these stocks and their importance for direct human consumption in many poorer coastal communities means retailers should carefully evaluate the ecological and social implications of sourcing products containing them.

Sauces, makeup and jewelry?

Buried deep on an ingredients list, or not listed at all, could be Redlist species in more products than consumers would expect. From cosmetics to canned soup, various products include ingredients from the sea.

Many sauces include fish ingredients like shrimp paste, but consumers may be unaware of this. Thai curries and stir-fry sauces often contain fish sauce, but the fish in question is not identified. Soups and seafood chowder may contain a whole host of species, while a variety of pre-made dishes could also contain something from the ocean.

As sustainable seafood policies become fully implemented in stores, Greenpeace is reminding retailers that a true commitment to healthy oceans extends beyond the seafood counter. Consumers should double check labels, but until they can be sure products do not contain Redlist species, we suggest that when in doubt, opt out.

Krill in Chilean Base, Teniente Marsh. Photo by Robin Culley

FORAGE FISH

Forage fish include many well-known species such as herring, anchovy, sardines, mackerel, menhaden, capelin and even the shrimp-like krill, and account for more than a third (37 per cent) of global marine fish catches.[5] As the primary prey for various species of seabirds, marine mammals and larger fish, forage fish hold an extremely important position in marine ecosystems as a key link between the base (plankton) and the top (top predators) of food chains.

In the 19th century, catches of forage fish grew and, because markets could not absorb the increased supply, a new sector geared towards reduction of these fish into oil was developed. The oil was then used for things like machinery lubrication, soap production and even fertilizers. In the early 20th century, the reduction fisheries became well developed with a primary focus on producing fishmeal and fish oil for animal feed. Today, about 90 per cent of global forage fish catches are processed into fishmeal and fish oil used in feed for livestock, farmed fish and the fur industry.[6] There is also growing demand for human fish oil supplements. Trimmings or byproducts of processing fish caught for direct consumption are also used in fishmeal and fish oil, but represent only a small fraction compared to the fisheries targeting these fish directly.

Since forage fish are relatively cheap and easy to catch, the reduction industry has exploded. But with this expansion has come increased concern, as the health of entire marine ecosystems and the food security of poorer nations have been put into question. As forage fisheries have increased around the globe, huge food deficits have occurred for their predators, including seabirds and whales, and their populations have shown declines. Reduction fisheries also eliminate a scarce source of nutritious, cheap protein from coastal communities of developing nations and transform it into expensive sources of protein for other corners of the world.

Forage fish are also very sensitive to changes in their environment. Their populations can shift substantially as a result of changes in ocean conditions such as temperature (which can impact food availability), predator-prey relationships and fishing pressure.

Forage fish have proven fairly resilient to the overexploitation of the fishing industry, but there has been a number of forage fishery collapses over the past century. Added pressure from increasing demand for these species combined with changing oceans due to climate change could prove devastating, not only for these species, but also for those further up the food chain, including humans and other fisheries of predatory fish. We must closely examine the industries dependent on forage fish for indirect uses, and determine whether they indeed have a place within a sustainable management regime.

5 Alder, J., Campbell, B., Karpuzi, V., Kaschner, K. and Pauly, D. (2008) Forage fish: from ecosystems to markets. Annual Reviews in Environment and resources 33: 153-166.

6 ibid

FREEZE THE ARCTIC

According to a University of British Columbia study published in February 2011, the Canadian government has not been reporting Arctic fish catches to the FAO for the past half century. The researchers found that between 1950 and 2006, the combined fisheries catches by Russia, Canada and the US were likely about 75 times higher than reported.[7] With sea ice receding due to climate change, commercial fishing seasons already lasting longer than in the past and commercially valuable species increasing their range north as ocean temperatures rise, the Arctic could become the grounds for the next global fishing frenzy, but neither the fragile environment nor the federal government is adequately prepared.

The Arctic is a great, white unknown for many Canadians. But for others, it has long been their home, and the unique resources have shaped their cultures and livelihoods. In the Arctic, life depends on the freeze and thaw of ice every fall and spring. With these freezing patterns now dramatically changing, Arctic life is trying to adjust to less ice, warmer oceans and much uncertainty.

Melting Ice in Canadian High Arctic – Steve Morgan

The decrease in sea ice has also opened up new territory to explore and exploit. Access to Arctic resources, previously covered by a thick sheet of protective glass, represents a world of opportunity not just for the fishing industry, but also for the offshore oil and mining industries. They have already begun to take advantage. As the Canadian government talks about trying to exert and defend its claims to the Arctic, deals are being made by Canadian and international companies to claim pieces of the open Arctic Ocean pie.

The fishing industry has been operating in the Arctic since well before the sea ice began to recede. Commercial fishing in the Canadian Arctic began in the 1950s, but subsistence fishing took place long before. Various species have traditionally been caught in the Arctic for direct consumption and to feed sled dogs, the primary mode of transportation up to the 1960s. Salmon (*Salmo salar*), charr (*Salvelinus alpinus*), Arctic cod (*Boreogadus saida*), sculpin (*Triglopsis quadricornis*) and a variety of other species have been caught in small-scale fisheries, while Greenland halibut or turbot (*Reinhardtius hippoglossoides*) and northern shrimp (*Pandalus borealis*) dominate commercial fisheries in recent times.[8,9] Expansion of Arctic fisheries occurred following the cod collapse, when vessels were forced to find other species to target, in waters further north and at depths deeper than had been previously fished.

Canada is the world's leading producer of northern shrimp, with most of it being exported to Europe and Asia. Shrimp is also sold in supermarkets across Canada, while turbot is now commonly found in supermarkets in Central and Eastern Canada. Turbot has been removed from sale by various supermarket chains due to the inherent vulnerability of the species to fishing pressure. Like many deep-sea and polar species, turbot are long-lived, slow-growing and late to mature, meaning their populations cannot be replenished at as fast a rate as species that are short-lived, fast-growing and produce many young like shrimp. Turbot are also the major prey for one of the Arctic's most mysterious creatures, the narwhal.

Shrimp and turbot are fished by bottom trawling, with huge nets dragged across the ocean floor. This highly indiscriminate practice is one of the most destructive fishing methods due to its impacts on ocean floor habitats. Bottom trawls tear up the sea floor and in some areas, such as cold water coral forests, this means destroying thousands of years of growth and life.

7 Zeller, D., Booth, S., Pakhomov, E., Swartz, W. and Pauly, D. (2011) Arctic fisheries catches in Russia, USA and Canada: Baselines for neglected ecosystems. Polar Biology. DOI 10.1007/s00300-010-0952-3

8 Zeller, D., Booth, S., Pakhomov, E., Swartz, W. and Pauly, D. (2011) Arctic fisheries catches in Russia, USA and Canada: Baselines for neglected ecosystems. Polar Biology. DOI 10.1007/s00300-010-0952-3

9 DFO. (2011) Underwater world, Northern shrimp, Canadian east coast. http://www.dfo-mpo.gc.ca/science/publications/uww-msm/articles/northernshrimp-crevettenorique-eng.html

Cold water coral forests flourish in the Davis Strait and Baffin Bay, where trawling for shrimp and turbot takes place. Cold water corals are vital to the health of the ocean ecosystem because they provide shelter and spawning and feeding grounds for many northern species. These corals grow slowly, reportedly taking over a century to grow only about a metre. But within seconds, 2,000-year-old species, thought to be the oldest living creatures, can be destroyed.

Corals have been destroyed by trawl nets at alarming rates in many Canadian waters. Large catches of sponges have also been recorded, with one trawl set taking up to 5,000 kilograms at a time. These sponges are mostly of the Geodidae family and are known to be slow growing, as well as forming significant structure on the seafloor in the form of sponge fields. These fields have been found in more southern waters to host a large diversity of species.[10]

Large-scale commercial fisheries only frequent eastern Canadian Arctic waters, but rumblings of them moving into the western Arctic and Beaufort seas have been heard for decades. Product quality and the inability to manage spoilage have been barriers to full large-scale development of Arctic commercial fisheries. However, with current holding and preserving capacity on offshore factory vessels, development discussions have resurfaced. Proposals to open up these waters to industrial exploitation have been met with much protest by northern communities, conservation groups and scientists. They are concerned by a lack of knowledge about the impact industrial fisheries would have on northern fish stocks and the marine species and coastal peoples that depend on them.

The reality is we know very little about what goes on in the frigid waters of our northern seas, how the Arctic environment will fare under increasing stress due to climate change and acidifying waters and how north-bound species will be linked into food chains. With so many unknowns, we must keep the Arctic frozen both literally and figuratively. The Canadian government must freeze new development in the Arctic, keep better track of what is being caught by northern fisheries and ban the use of destructive fishing methods that destroy vulnerable marine ecosystems, like cold water corals.

Canadian supermarket chains must do their part to protect this fragile environment, which represents one of the last underexploited corners of our oceans. They must give careful consideration to species sourced from northern waters, taking extra care to avoid Redlist species that come from fisheries that are threatening vulnerable marine habitats and weakened food chains.

10 Fuller, Susanna D. 2011. Diversity of Marine Sponges in the Northwest Atlantic. PhD Thesis. Dalhousie University. 218p.

Arctic Ocean Seabed. Photo by Gavin Newman

GLOSSARY

Aquaculture Certification Council (ACC): An aquaculture certification body created through the Global Aquaculture Alliance (GAA). Farmed species are certified based on a series of GAA standards. http://www.aquaculturecertification.org/

Aquaculture Dialogues: A series of eight roundtables initiated by the World Wide Fund for Nature (WWF). The dialogues bring together over 2,000 stakeholders to develop standards aimed at minimizing the key negative environmental and social impacts of 12 farmed species. When finalized, the standards will be used in a certification scheme.

Aquaculture Stewardship Council (ASC): A non-profit organization designed to manage global standards for aquaculture. It is dedicated to developing responsible aquaculture standards under the Aquaculture Dialogues, and implementing a certification and labelling system for responsibly farmed aquaculture. http://www.ascworldwide.org

Best Aquaculture Practices (BAP): Standards set by the Global Aquaculture Alliance that involve voluntary certification programs for aquaculture facilities. These standards seek to address environmental and social responsibility, animal welfare, food safety and traceability. BAP currently certifies shrimp farms and hatcheries; tilapia, channel catfish and Pangasius farms; seafood processing plants and feed mills. http://www.bestaquaculturepractices.org

Chain of custody: The path taken by raw materials, processed materials and products, from the ship to the store.

FishWise: A non-profit organization that aims to improve the sustainability and financial performance of seafood retailers, distributors, and producers. Positioned between the seafood industry and marine conservation organizations, FishWise works to create trust between seafood vendors and their customers, enabling businesses to sell more sustainable seafood, more profitably. FishWise joins business imperatives with leading ocean conservation strategies. http://www.fishwise.org

Food Marketing Institute (FMI): The FMI conducts programs in public affairs, food safety, research, education, and industry relations on behalf of its 1,500 member companies including food retailers and wholesalers in the United States and around the world. http://www.fmi.org/

Global Aquaculture Alliance (GAA): A non-profit trade organization that seeks to advance environmentally and socially responsible aquaculture by setting certification standards. The GAA also works to improve trade and regulatory policies, as well as marketing and production efficiencies. http://www.gaalliance.org

Hand-line: A type of fishing that uses lines and hooks from a stationary or moving boat. This method is more selective than other types of fishing in terms of species and size, and provides high-quality fish. The method can be used on spawning fish as they normally only bite after completion of spawning.

Longlining: A fishing technique that uses a main horizontal line with branches of shorter lines and baited hooks that are pulled through the water at various depths.

Marine Stewardship Council (MSC): The MSC runs a labelling scheme that certifies fisheries it deems sustainable or as making efforts to become sustainable. Companies wishing to use the MSC seal on their products undergo a chain of custody certification process that guarantees traceability of MSC-labelled seafood. http://www.msc.org/

Ocean Wise: A Vancouver Aquarium conservation program created to educate and empower consumers about the issues surrounding sustainable seafood. Ocean Wise works directly with restaurants and markets, helping them make more ocean-friendly buying decisions, which are highlighted on their menus and display cases with the Ocean Wise symbol. http://www.vanaqua.org/oceanwise/

Pole-and-line: A fishing method in which surface schooling fish are attracted to a vessel and driven into active feeding behaviour by throwing bait into the water and spraying water onto the sea surface to simulate the escape of small prey. Poles and lines with barbless hooks are used to hook the fish, including surface-schooling tuna such as skipjack and albacore.

SeaChoice: A comprehensive seafood markets program with the primary goal of fostering sustainable fisheries in Canada and abroad. SeaChoice is comprised of five environmental organizations (Canadian Parks and Wilderness Society [CPAWS], David Suzuki Foundation, Ecology Action Centre, Living Oceans, Sierra Club Canada [BC Chapter]) that work together through a coalition entitled Sustainable Seafood Canada to raise public awareness of the threats to oceans and the solutions that sustainable fisheries offer. http://www.seachoice.org/

Sustainable Fisheries Partnership (SFP) : A non-profit project that provides strategic and technical guidance to seafood suppliers and producers, helps convene them together with other like-minded companies in Fishery Improvement Partnerships, and builds consensus around specific improvements in policies, marine conservation measures, and fishing and fish-farming practices. http://www.sustainablefish.org

The Sustainability Consortium: An independent organization of diverse global participants who work collaboratively to build a scientific foundation that drives innovation to improve consumer product sustainability through all stages of a products life cycle. http://www.sustainabilityconsortium.org

Trawling: Pulling a large, open-mouthed fishing net through the water or along the sea floor, with the net kept open by a heavy beams or doors.

Photo by Paul Hilton

GREENPEACE

Greenpeace is an independent, campaigning organisation which uses non-violent, creative confrontation to expose global environmental problems, and to force the solutions which are essential to a green and peaceful future.

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