

## Sustainable Seafood: Key Definitions & Resources

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### Key Definitions

**Aquaculture:** The breeding, rearing and harvesting of plants and animals in all types of aquatic environments, both freshwater and marine. Also known as fish or shellfish farming.

**Aquaculture Improvement Project (AIP):** An alliance of seafood producers, processors, suppliers, and buyers working together to address sustainability issues in a region where aquaculture is taking place. AIPs bring together all stakeholders to take actions to improve the environmental and social quality of the production zone.

**Aquaculture Stewardship Council (ASC):** An independent, not for profit, seafood certification organization program for responsibly farmed seafood. ASC was founded in 2010 by World Wildlife Fund and the Dutch Sustainable Trade Initiative.

**Aquaponics:** A combination of fish and plant production using the practices of aquaculture and hydroponics. Plants are grown with their roots suspended in water and absorb the nutrients that the animals excrete. The plants also help to filter out the water, keeping it a healthy environment for the animals to live in.

**Avoid (Red) Ranking:** Seafood Watch designation to caution consumers not to buy a seafood product. Seafood with an “avoid” ranking is overfished or caught or farmed in ways that harm other marine life or the environment.

**Best Aquaculture Practice (BAP) Certification:** An international, third-party certification system through the [Global Aquaculture Alliance](#) that verifies that finfish, crustaceans and mollusks are produced under environmentally and socially responsible processes. The certification standards include environmental responsibility, social responsibility, food safety, animal health and welfare, and traceability.

**Best Choice (Green) Ranking:** Seafood Watch designation to alert consumers that a seafood product is well managed and caught or farmed in ways that cause little harm to habitats or other wildlife.

**Bycatch:** Fish that are unintentionally caught in a fishery that are not sold or kept, this includes economic discards and regulatory discards.

**Dolphin Safe Label:** A label used to mark seafood products that have been caught using fishing methods that are in compliance with laws and policies designed to minimize dolphin fatalities during tuna fishing. This label was originally created by the Earth Island Institute in 1990; currently major tuna fisheries and processors across the world adhere to these standards.



**Fishery:** A unit defined by an authority or other entity that is engaged in raising and/or harvesting fish.

**Fishery Improvement Project (FIP):** An alliance of seafood retailers, processors, and or/catchers that come together to resolve problems within a specific fishery by pressing for better policies and management while voluntarily changing purchasing and fishing practices to reduce environmental concerns. There are two levels of fishery improvement projects, basic and comprehensive, the definitions are below.

**Basic FIP:** A good entry point for fisheries to begin addressing specific environmental challenges.

**Comprehensive FIP:** A more involved project level that aims to address the full range of environmental challenges necessary for a fishery to achieve a high level of sustainability.

**Friends of the Sea Certification:** An international certification program for sustainable fisheries and aquaculture across the world. The certification requirements follow the FAO Guidelines for Eco labeling of Fish and Fishery Products from Marine Capture Fisheries, specifically only certifying seafood that is not from an overexploited fishery.

**Fish Stock Sustainability Index (FSSI):** A quarterly index that measures the performance of these important fish stocks. This index currently includes 199 fish stocks selected because of their importance to commercial and recreational fisheries.

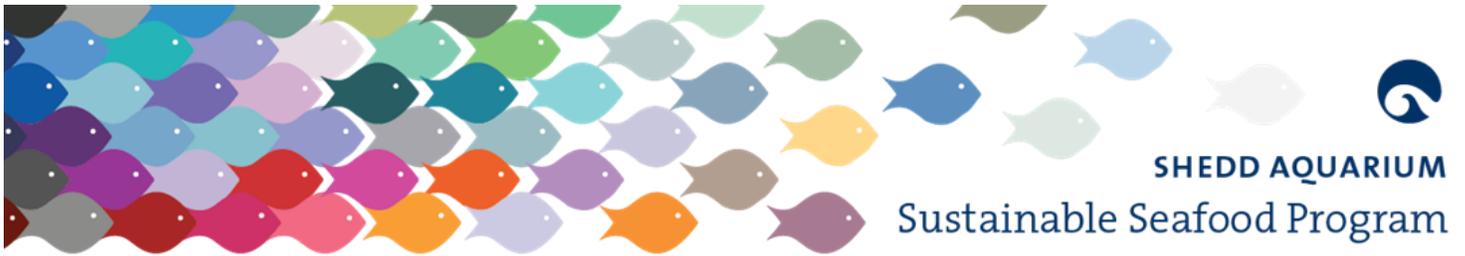
**Global Aquaculture Alliance:** An international, non-profit organization committed to feeding the world through responsible, sustainable aquaculture. The Global Aquaculture Alliance (GAA) works to improve practices and increase output across the entire aquaculture production chain, one strategy they use to address these practices is the Best Aquaculture Practices (BAP) certification system.

**Good Alternative (Yellow) Ranking:** Seafood Watch designation that alerts consumers that a seafood product is ok to buy, but cautions that there are some concerns with how it is caught or farmed.

**Global Sustainable Seafood Initiative (GSSI):** A global platform and partnership of seafood companies, NGOs, experts, governmental and intergovernmental taking a non-competitive approach to provide clarity on seafood certification and ensure consumer confidence in certified seafood.

**ISEAL:** A non-governmental organization whose mission is to strengthen sustainability standards for the benefit of people and the environment. ISEAL works to improve, increase the adoption of, and define credible practices for sustainability standards systems.

**IUU- Illegal, Unreported and Unregulated Fishing:** IUU is a global problem often comes from fisheries lacking strong and effective conservation and management measures and it is a threat to ocean ecosystems.



**Marine Stewardship Council (MSC):** An international fishery certification program that aims to recognize and reward responsible fishing practices and influence the choices that people make when buying seafood.

**Naturland Certification:** A certification for organic and fair trade aquaculture that covers farmed fish and crustaceans, mussel cultivation and the cultivation and collection of marine microalgae. This certification uses the European Union standards for organic regulation, there currently are not standards for organic aquaculture in the United States. The Naturland certification standards are based on a holistic approach, sustainable management, nature conservation and climate protection. This certification is an approved eco-certification by Monterey Bay Aquarium's Seafood Watch, it is considered equivalent to the "Good Alternative" ranking or higher.

**Overfishing:** When more fish are caught than the population can replace through natural reproduction. Overfishing can lead to the collapse of a species, imbalance within an ecosystem, and negative social and economic impacts to communities that depend on fish.

**Seafood Watch:** Seafood program run by Monterey Bay Aquarium. Seafood Watch performs fishery and aquaculture assessments to create science-based recommendations for consumers, chefs and businesses for seafood choices that don't harm the environment. Seafood Watch also offers a formal partnership program for seafood industry collaborators, conservation organizations, businesses and restaurants.

**Sustainable Seafood:** Seafood that has a healthy population in the wild, is from a well-managed fishery, and is caught or farmed using environmentally friendly practices.

## Sustainable Seafood Resource Recommendations

*Click on resource name to link to website*

**Environmental Defense Fund** : An international environmental organization that uses science and economics to address global environmental issues. Their Seafood Selector provides information about the sustainability and safety of major seafood species. <http://seafood.edf.org/>

**Fish Choice**: An online sustainable seafood sourcing tool that aims to connect seafood buyers and sellers and make it easier to find, procure and sell sustainable seafood. <http://www.fishchoice.com/>

**Fish Source**: A resource provided by the Sustainable Fisheries Partnership that provides up-to-date information on the status and sustainability of fish stocks and fisheries as well as the improvements they need to make to become more sustainable. <http://www.fishsource.com/>

**FisheryProgress.Org** : A website that allows fishery improvement projects (FIPs) to conduct detailed progress tracking using the same shared standard and provides third-party verification of that information. This website provides consistent and reliable information about FIP progress. <http://fisheryprogress.org/>



**Next Bites:** A charitable organization that is dedicated to helping the Chicago foodservice industry reduce its collective environmental footprint and educating the public on the sustainable goods and services available in the city. Next Bites' partnership program provides foodservice businesses in Chicago with resources and services on becoming a more sustainable organization. <http://greenchicago.org/>

**Illinois DPH - Illinois Fish Advisory:** The Illinois Department of Health creates an advisory of fish contaminant levels in the major rivers and lakes in the state based on safety assessments for the fish species. <http://www.dph.illinois.gov/>

**NOAA Fish Watch:** An informational website maintained by NOAA Fisheries dedicated to providing science-based facts to help consumers to make sustainable seafood choices. <http://www.fishwatch.gov/>

**Sustainable Fisheries Partnership:** A business focused NGO dedicated to improving access to information to guide sustainable seafood sourcing and enhancing the ability of seafood companies and partners to influence policies and management practices to improve fisheries. SFP works to improve seafood sustainability through Fishery Improvement Projects (FIPs) and Aquaculture Improvement Projects (AIPs). <http://www.sustainablefish.org/>

**Seafood Nutrition Partnership:** A non-profit organization that builds awareness of the health and nutritional benefits of seafood. SNP runs education programs that inspire Americans to incorporate more seafood and omega-3s into their diets for improved health as per USDA Guidelines. <http://www.seafoodnutrition.org/>

**Seafood Watch Partnership:** Monterey Bay Aquarium's Seafood Watch offers a partnership program for businesses that sell seafood. Business partners make a time-bound commitment to sell only sustainable seafood to help transform the seafood marketplace and receive benefits from Seafood Watch in return. <http://www.seafoodwatch.org/>

**Shedd Aquarium Sustainable Seafood Program:** Shedd Aquarium's sustainable seafood program can offer resources and tools to help restaurants and retailers to make a commitment to sustainable seafood that meets their business model and offers opportunities for collaboration and support. <http://www.sheddaquarium.org/Conservation--Research/Right-Bite/>

**Sustainable Seafood Calculator:** A tool created by Fish Choice to determine and track seafood sustainability over time. This tool is great for measuring progress toward a more sustainable menu and has the option to create full reports of this information. <http://www.fishchoice.com/sustainableseafoodcalculator/>



## Sustainable Seafood: Hot Topics and Myth Busting

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### Aquaculture (Farmed Seafood)

**The myth:** Farmed seafood is irresponsible, unhealthy for the environment or generally unhealthy for humans.

**The truth:** Aquaculture is critical to meeting the global seafood demand while sustaining wild fisheries and currently over half of the seafood consumed in the United States is farmed. **The sustainability and health of a seafood farm is dependent on the species being raised, the location of the farm, as well as the practices and management taking place.** Stay informed on where your seafood is from and what kind of farm it was raised in, this information is important in determining the sustainability and general health of the product. Look for products that have received “Best Choice” or “Good Alternative” rankings by Seafood Watch or that have a credible third party certification such as the Aquaculture Stewardship Council certification or Best Aquaculture Practices certification with two stars or more.

### Farmed Salmon

**The myth:** All farmed salmon is bad for humans and the environment due to the feed that is used, the conditions they are raised in, and the potential for raising genetically modified fish.

**The truth:** Farmed salmon is one of the most popular seafood items in the United States and it is the fastest growing food production system in the world. In recent years salmon farms have received criticism for irresponsible environmental practices, the use of antibiotics that may cause health concerns for consumers. As there is more press on the environmental and potential health concerns with farmed salmon many people have the impression that all farmed salmon is bad and that they should stay away from it altogether. **Not all farmed salmon is the same, they range in quality, sustainability and health - it is important to be aware of the conditions in which it is raised and the food they are given.** Recent improvements in technology and more efficient feed have contributed to more sustainable salmon farms that have received “good alternative” or even “best choice” rankings by Seafood Watch.

If there isn't enough information to determine the sustainability or health of farmed salmon, consider better alternatives. Wild Alaskan is a high quality and sustainable option when it is in season; in the off seasons consider an alternative with a similar flavor profile to salmon such as arctic char.

### Farmed Shrimp

**The myth:** All shrimp is the same, so it is best to select the cheapest option.

**The truth:** Shrimp farms help supply the large global demand for shrimp without depleting the wild stocks through fishing. Some farms are poorly managed and use cheap and irresponsible industrialized processes. Farmed shrimp currently accounts for 55% of shrimp produced globally, with the majority of the farms in



Southeast Asia. Despite the vast popularity of shrimp, are differences between wild shrimp and farmed shrimp or between the various types of shrimp farms and the environmental, social and health concerns that may be associated with them. **There can be irresponsible practices with both wild shrimp fisheries and shrimp farms; the sustainability and health of these systems are dependent on the management and the equipment used.** In the past decade there has been an increased interest in addressing issues of environmental and social responsibility in both small and large scale operations. Reference the Seafood Watch website or app for rankings for both wild and farmed shrimp from a variety of locations: <http://www.seafoodwatch.org/seafood-recommendations/groups/shrimp/overview?q=Shrimp>

## Great Lakes Fish

**The myth:** There is risk of concentrations of contaminants in seafood that is unsafe to eat.

**The truth:** Due to pollution in the Great Lakes some species of fish have accumulated high concentrations of chemical pollutants that may be dangerous to humans when consumed frequently in a certain period of time. However, **the majority of Great Lakes fish are safe to eat in moderation according to assessments by the state Department of Public Health and the Environmental Protection Agency, and they are a great local seafood option.** Stay up to date on your local seafood advisories to learn about any contaminant concerns. An advisory for Lake Michigan fish by the Illinois Department of Public Health can be found here: <http://www.idph.state.il.us/envhealth/fishadvisory/lakemichigan.htm>

## Habitat Destruction

**The myth:** Fisheries only impact the fish populations that they are catching, they don't impact marine habitats.

**The truth:** Habitat destruction is an unfortunate and common result of some fishing methods and aquaculture. Particular catch methods used by fishing boats can destroy ocean habitats by dragging large nets across the ocean floor or rip out corals and plants. Poorly managed aquaculture operations also pose a risk for habitat destruction through build-up of excess waste, feed and chemical additives to the system that can harm the surrounding ecosystem. Look for seafood that is caught or farmed using methods that do not pose a threat to the environment. Seafood Watch and other third party assessment programs provide resources that call out fisheries and aquaculture operations that have a high risk of habitat destruction due to the practices they use.



## Human Rights in Seafood

**The myth:** Consumers buying seafood in the US and Canadian marketplace do not need to worry about human trafficking or slavery, or that human rights are not even an issue in the seafood industry.

**The truth:** Human rights in the seafood industry are an extremely important topic and a serious issue worldwide. It is estimated that there are over 20 million people working under coercive or forced labor conditions globally. Human rights abuses have been reported in countries across the world. The issue of human rights in the seafood industry is very complex. It is challenging to know if a product is from a fishery or farm with socially irresponsible practices, but not all seafood comes from a forced labor situation. It is important to work with a seafood distributor or purveyor that you trust and is knowledgeable about the products that they source. Stay up to date on what is happening globally with this issue and what is being done to mitigate these issues in the seafood industry. **You can learn more about human trafficking in the seafood industry and what you can do to support fair labor through your purchasing choices by visiting the links below.**

- FishWise: <http://www.fishwise.org/index.php/services/human-rights>
- FairTrade USA Seafood Program: <http://fairtradeusa.org/certification/producers/seafood>
- Sustainability Incubator's Labor Safe Screen: <http://www.laborsafescreen.com/>
- Seafish Responsible Fishing Scheme: <http://www.seafish.org/rfs/> and Vessel Improver Program: <http://www.seafish.org/rfs/index.php/whats-new/rfs-improver/>
- IUU Watch summary of EU card status: <http://www.iuuwatch.eu/iuu-fishing/red-yellow-carding/summary-links/> and map: <http://www.iuuwatch.eu/iuu-fishing/red-yellow-carding/map-of-iuu-fishing/>
- Guide for businesses: How to develop a human rights policy [https://www.unglobalcompact.org/docs/issues\\_doc/human\\_rights/Resources/HR\\_Policy\\_Guide.pdf](https://www.unglobalcompact.org/docs/issues_doc/human_rights/Resources/HR_Policy_Guide.pdf);
- UN Human Rights Council's Guiding Principles on Business & Human Rights and executive summary: <http://www.shiftproject.org/page/un-guiding-principles-business-and-human-rights>

## Gulf of Mexico Seafood after Deepwater Horizon/BP Oil Spill

**The myth:** Seafood from the Gulf of Mexico is heavily contaminated from the Deepwater Horizon/BP oil spill and unsafe for human consumption.

**The truth:** the FDA, NOAA National Marine Fisheries Service, the Environmental Protection Agency, and the U.S. Coast Guard took strong measures to ensure that the safety of seafood that is harvested from the Gulf of Mexico. Fisheries in areas exposed to the oil were closed and a reopening protocol was established to ensure the seafood is safe before opening the fishery again. State and federal agencies also conducted extensive sampling and testing of seafood to look at the contaminant levels and if they passed the legal safety requirements. Safety testing in recent years has shown that any contamination levels are below the limits for safe human consumption. As of April 2011 all of the federal fisheries and all of but a few state fisheries were reopened and considered safe to eat.



## Pacific Seafood after Fukushima

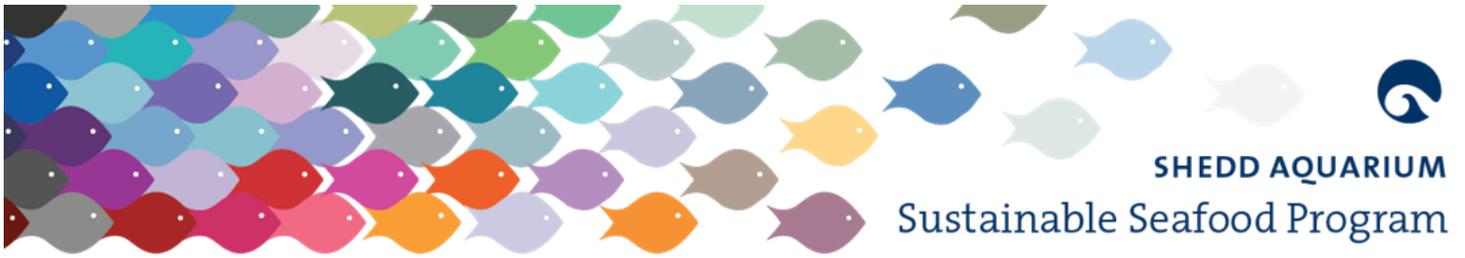
**The myth:** Seafood from the Pacific Ocean is highly contaminated from the radiation that was a result of the Fukushima disaster and is unsafe for human consumption.

**The truth:** Studies performed by the US Food and Drug Administration and the Center for Marine and Environmental Radiation have shown that the levels of radiation in Pacific seafood are low and there is no evidence that these levels in seafood would cause a public health concern. The FDA is not currently advising consumers to alter their consumption of Pacific seafood and will continue to monitor radiation levels. FishWise, an organization that provides market based tools and resources to the seafood industry, has posted updates on the state and safety of Pacific seafood with several sources of research and testing referenced. Pacific seafood in the US market is currently safe to eat by FDA standards, though it is important to stay up to date on their assessments to ensure nothing has changed. The most recent FishWise Fukushima update can be found here: <http://fishwise.org/index.php/press/blog/241-fukushima-update-no-2-what-you-need-to-know-about-radiation-in-the-pacific>

## Organic Seafood

**The myth:** All wild caught seafood is organic and/or organic means the same thing for seafood as any other food product.

**The truth:** Currently there are no standards for organic wild caught seafood due to the fact that there is no way to track the food sources of wild animals and ensure they live in a way that meets organic certification standards. In some countries there are established standards for organic certifications for farmed seafood, these standards are primarily based on the feed and any additives to the system such as antibiotics. The United States Department of Agriculture is currently in the process of reviewing the proposed standards for organic aquaculture.



## Sustainable Seafood: Making a Commitment Work in Your Kitchen

### This worksheet will:

- Help you identify your seafood priorities
- Make a clear and easy to communicate sustainability commitment
- Provide you with the information you need to talk to your seafood supplier(s) about your expectations and how best to fulfill your commitment

### Create a Sustainable Seafood Commitment

By filling out the following worksheet, I am making a record of my needs as a chef to ensure I am staying true to my menu, culinary excellence and business plan.

#### Sustainability Criteria & Responsible Sourcing

The power is in the purchasing. You can make a big difference for healthy and abundant oceans by purchasing sustainable seafood and communicating your expectations to your seafood suppliers.

I would like *choose a percentage* of my seafood menu items to fit the criteria below.

Check those you wish to apply.

For more information about the criteria, see *Key Definitions & Resources* document.

	Check all that you wish to apply	Required, Preferred, or Unacceptable	Specific items <i>List any seafood items that you want sourced from the given category.</i>
<b>Wild Caught - Certified</b>			
MSC Certified <i>(Marine Stewardship Council) Ecologically sustainable and chain of custody/traceability</i>	<input type="checkbox"/>		
Fair Trade Certified <i>Includes human rights/fair labor criterion</i>	<input type="checkbox"/>		
<b>Farmed - Certified</b>			
ASC Certified <i>(Aquaculture Stewardship Council)</i>	<input type="checkbox"/>		
BAP Certified <i>(Best Aquaculture Practices)</i>	<input type="checkbox"/>		



	Check all that you wish to apply	Required/Preferred/Unacceptable	Specific items
<b>Rated Seafood – Wild Caught &amp; Farmed</b>			
Seafood Watch “Best Choice” (green)	<input type="checkbox"/>		
Seafood Watch “Good Alternative” (yellow)	<input type="checkbox"/>		
Seafood Watch “Avoid” (red)	<input type="checkbox"/>		
<b>Improving Seafood*</b>			
Improving Fisheries (Fishery Improvement Projects – FIPs)	<input type="checkbox"/>		
Improving Farms (Aquaculture Improvement Projects – AIPs)	<input type="checkbox"/>		

\*Improving fisheries and farms engage in policy, fishing practice, and management reform that leads to positive social, economic, and environmental outcomes in fisheries and aquaculture production, including ensuring implementation of core labor standards.

### Conditions

The following seafood items are exempt from the above sustainability criteria and should be provided per the criteria below when ordered.

Seafood Item	Reason for Exemption	What I need (ex: cut, size, prep)
<i>Ex: prawns</i>	<i>Must be on menu at this size (expectation of ownership)</i>	<i>6/8 count, tail on deveined</i>
<i>Ex: wild caught Alaskan salmon</i>	<i>Seasonality/availability/price</i>	<i>Source in season only; out of season source or “best choice” farmed salmon</i>

Should the above not be available, please discuss options with \_\_\_\_\_ at \_\_\_\_\_  
Name of person at restaurant

\_\_\_\_\_ before ordering.

Phone # or e-mail address



**How important are the following factors in choosing to offer sustainable seafood on your menu?**

Rank each option by placing an **X** in the appropriate category, with 1 being not at all important, 3 being neutral, and 5 being critically important.

	<b>Not Important</b>	<b>Not Very Important</b> <i>Does not play a large role in decision making</i>	<b>Neutral</b>	<b>Somewhat Important</b> <i>Influences decision making.</i>	<b>Critically Important</b> <i>This factor above all others trumps other factors.</i>
	1	2	3	4	5
Sustainability is the goal, at any price					
Price. I will not spend more money to make sure the seafood I choose is sustainable					
Seasonality. I wish to offer fish that is in season only					
Fresh seafood - not frozen					
Frozen seafood					
Wild caught seafood					
Local seafood					
Domestic, non-imported seafood					



Seafood ready to cook <i>i.e. precut or/prepped ex: tail on, shelled, deveined shrimp</i>					

### Recommendations from Shedd Sustainability Experts

**Talk to your seafood supplier(s):** Share this information with your seafood supplier(s) and let them know that you expect them to source seafood for you that is in keeping with your sustainability commitment and meets your expectations. Revisit as needed to ensure your purchasing staff supplier(s) are on the same page.

**Record and track seafood purchasing:** Shedd recommends you do this through [Fish Choice](#). Monitor the sustainability of your seafood products and assess progress toward your commitment goals.

**Create a written sustainability commitment and share with staff and guests:** Creating a public sustainable seafood commitment statement shows critical dedication to action and provides essential guidance for your purchasing practices and menus.

**Share your commitment with staff and guests:** Make information regarding the sustainability of the seafood on your menu publicly available and report on progress against your sustainable seafood commitment. This helps your guests feel confident in and supportive of your commitment to conservation.

**Train your staff:** Make sure your staff appreciate the importance of seafood sustainability, understand your commitment, and know the reason you select the seafood items that appear on your menu. Encourage staff to celebrate the commitment with your guests. Shedd Aquarium’s sustainable seafood experts are happy to assist you with creating and implementing seafood training programs per request and resource availability.

**Celebrate progress:** Share progress toward our sustainability goals publicly. This not only provides reputational benefits and encourages guest loyalty; it also helps encourage further innovation and sparks passion within your staff in support of your sustainability goals.