

To fit in your wallet, print the first page of this guide, then flip the sheet of paper over to print the second page on the back. Cut along the dotted lines, fold according to the directions on the guide, and stick in your wallet.



#### Atlantic Cod

Decades of overfishing have driven Atlantic Cod populations to historic low levels. Even with heavy management, populations show no sign of rebuilding. Catch methods for Atlantic Cod—primarily bottom trawling—destroy habitat.



#### Sharks

Many shark species are depleted worldwide. Sharks grow slowly and have few young. Poor management has made shark populations victims of widespread overfishing and bycatch. Sharks swim past national boundaries, yet no international management exists.



#### Shrimp, imported

Bottom trawls used to catch most wild shrimp damage habitat and unintentionally kill many unwanted invertebrates, fish, and sea turtles. Coastal shrimp farming ruins life-supporting ecosystems such as mangroves and causes water pollution. Shrimp from the U.S. are generally better monitored and regulated. For more information on shrimp, check our website.



#### Farmed (Atlantic) Salmon

High environmental costs of farming salmon include water pollution, spread of diseases to wild populations, high content of wild fish in feed, and overuse of antibiotics. Wild Atlantic Salmon in the U.S. are endangered. Farms supply all Atlantic Salmon sold in the U.S.



#### Caviar, from wild-caught sturgeons

Wild sturgeon species suffer from overfishing and habitat degradation. These species mature late and management efforts are generally poor. High demand for beluga, ossetra, and sevruga caviar from the Caspian Sea drives overfishing and black-market trade.

**This Seafood Guide includes commonly available seafoods in U.S. markets. More information on these and other fish can be found at [www.blueocean.org](http://www.blueocean.org)**

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(FOLD GUIDE & KEEP IN YOUR WALLET)

**BLUE OCEAN INSTITUTE**

*Fresh Inspiration for Ocean Conservation*

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**Blue Ocean Institute** works to inspire a closer relationship with the sea through science, art, and literature. We develop conservation solutions that are compassionate to people as well as to ocean wildlife, and we share reliable information that enlightens personal choices, instills hope, and helps restore living abundance in the ocean.

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# Guide to Ocean Friendly SEAFOOD

BLUE OCEAN INSTITUTE

*Fresh Inspiration for Ocean Conservation*

January 2006



#### Farmed Clams, Mussels, Oysters, and Bay Scallops

Shellfish filter feed and don't require fishmeal and fish oil for food. When farmed using suspended bags, nets, or cages—as opposed to being dredged—mollusks top our list.



#### Alaska Salmon

With good management and fairly healthy habitat, Alaska salmon remain abundant. There are concerns that hatchery programs adversely affect wild salmon populations.



#### Striped Bass, wild and farmed

Striped Bass are wild-caught and also farmed. Effective fisheries management helped wild Striped Bass recover from severe depletion in the 1980s to high abundance today. Farming hybrid Striped Bass results in few escapes and minimal pollution. However, their feed contains high amounts of fishmeal and fish oil.



#### Mahimahi, pole- and troll-caught

Mahimahi grow fast, live short lives and withstand high fishing pressure. Pole and troll fisheries catch Mahimahi with little bycatch compared to longline fisheries.



#### Albacore, Bigeye, Yellowfin, and Skipjack Tuna, pole- and troll-caught

Tunas are fast-growing, prolific breeders, and wide-ranging, but many populations are experiencing depletion. The low bycatch associated with pole- and troll-caught tuna makes them better alternatives to long-line- or purse-seine-caught tuna.



#### American ("Maine") Lobster, Maine and Canada

Maine and Canadian lobster populations today thrive at record-high abundance. However, North Atlantic Right Whales, an endangered species, still become entangled in lobster fishing gear, a problem that raises significant concerns.

#### FISH KEY



Species is relatively abundant, and fishing/farming methods cause little damage to habitat and other wildlife.



Some problems exist with this species' status or catch/farming methods, or information is insufficient for evaluating.



Species has a combination of problems such as overfishing, high bycatch, and poor management, or farming methods have serious environmental impacts.



Fishery is certified as sustainable to the Marine Stewardship Council's environmental standard. Learn more at [www.msc.org](http://www.msc.org)



*One or more consumption advisories exist from state agencies, the U.S. Food and Drug Administration, the Environmental Protection Agency, or scientific studies. For more information, see [www.blueocean.org/seafood](http://www.blueocean.org/seafood)*

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## BLUE OCEAN INSTITUTE Guide to Ocean Friendly Seafood



### Squid

Squid often reproduce before turning one year old and live short lives, characteristics that help them withstand high fishing pressure. The difficulty of managing squid fisheries lies in their sensitivity to changes in environmental conditions.



### Pacific Soles

Well-managed, these flatfish are currently abundant. However, bycatch and habitat damage from bottom trawling cause concern. Fishery managers try to minimize these impacts, especially where soles share habitat with depleted Pacific coast rockfish.



### Dungeness\*, King, and Stone Crabs

These crab species are fairly abundant thanks to wise management. High fertility helps Dungeness and Stone Crabs withstand fishing pressure. King Crabs brood their eggs for a year, making them vulnerable to fishing pressure. Crab fishers use relatively low-bycatch traps (or pots).



### Catfish, U.S.-farmed

Fish farmers raise catfish in the southern U.S. in large earthen ponds, resulting in some water pollution. But escapes are rare, and catfish require much less fishmeal and fish oil in their feed than other farmed fish.



### Shrimp, U.S.-farmed

Farmed shrimp require high amounts of fishmeal and fish oil in their food compared to other farmed fish and shellfish. Farmers usually treat discharged water to reduce pollution. U.S. farm-raised shrimp are a better choice than imported farm-raised shrimp or trawl-caught shrimp.



### Tilapia, U.S.-farmed

Tilapia require little fishmeal and fish oil in their feed. U.S. tilapia farms produce less pollution than foreign farms. However, because tilapia are not native to the U.S., escapes that do occur jeopardize native fish populations.



### Pacific Cod

While faring better than their Atlantic counterparts, Pacific Cod persist at only a moderate level of abundance. Managers limit catches and account for bycatch. Declines of marine mammals and bycatch of North Pacific albatrosses raise concerns about this fishery's ecosystem impacts.



### Pacific Halibut

Although they grow slowly and can live over 50 years, Pacific Halibut remain abundant due to responsible management. Fishers own shares of the total annual catch, eliminating the dangerous incentive to fish competitively. Accidental deaths of seabirds, especially North Pacific albatrosses, concern the international commission that oversees this fishery.



### Rainbow Trout

Some problems with farming this species exist. Rainbow Trout feed contains large amounts of fishmeal and fish oil. However water pollution and other ecological risks of farming Rainbow Trout are low.



### Swordfish

Swordfish remain overfished in the North Atlantic but show signs of recovery with stronger catch regulations. Their abundance appears high in the North Pacific, but their status is unclear in other parts of the Pacific. Most Swordfish are longline-caught, with high bycatch of albatrosses, sea turtles, and sharks.



### Blue\*, Snow, and Tanner Crabs

Exploited heavily, depletion affects some populations of these species. Blue Crabs suffer from habitat loss and pollution problems. Certain biological traits in Snow Crabs—like egg-brooding for almost a year—make them particularly vulnerable to fishing pressure. Snow and Tanner Crabs spend most of the year in groups on the seafloor, which makes them easier to catch. Fishers catch crabs mostly with low-bycatch traps.



### Albacore, Bigeye, Yellowfin, and Skipjack Tuna, canned or longline-caught

Despite having naturally high fertility and wide ranges, many Albacore Tuna ("chunk white") and Bigeye, Yellowfin, and Skipjack Tuna ("chunk light") populations are declining from heavy fishing pressure. Globally, few regulations exist for tuna fisheries. Longline and purse-seine fishers catch large numbers of marine mammals, sea turtles, sharks, and young tunas. Despite U.S. "Dolphin Safe" standards for the canned tuna market, affected dolphins are not recovering.



### Monkfish

Monkfish are typically caught along with other groundfish such as Atlantic Cod and Haddock in the Northeast U.S. This fishery suffers from historically poor management, resulting in overfishing, depletion, and job losses. Gillnets and trawls, which cause high bycatch, catch the majority of Monkfish in the U.S. market.



### Sea Scallops

Wild Sea Scallops have recovered from being overfished, but current management measures allow too high fishing pressure and are controversial. Bottom dredges and trawls used to catch Sea Scallops damage habitat, and there is unintended catch of endangered sea turtles and depleted Atlantic Cod and other groundfish.



### Atlantic Flounders and Soles

Long-term overfishing and high bycatch plague Atlantic groundfish fisheries. Naturally vulnerable to fishing pressure, most Atlantic flounders and soles remain depleted. Strong management measures have helped Summer Flounder (fluke) rebound.



### Groupers

Generally long-lived, many groupers change sex with age and group-spawn in the same places every year, making them vulnerable to overfishing. Most groupers sold in the U.S. are imported, generally from countries with little management.



### Orange Roughy

Orange Roughy don't mature until they're at least 20 years old, can live over 100 years, and are severely depleted. They live in deep waters where habitat-damaging trawls catch them when they gather in groups to feed or spawn. A number of deep-sea shark species caught as bycatch in Orange Roughy fisheries are threatened.



### Chilean Seabass

Really named Patagonian Toothfish, high demand for this naturally long-lived fish drives depletion and creates an incentive for continued illegal fishing. Incidental catch of albatrosses and petrels in Patagonian Toothfish fisheries jeopardizes their populations.



### Atlantic Bluefin Tuna

Highly valued by sushi connoisseurs, Atlantic Bluefin Tuna have been exploited heavily since the 1970s and suffer from extreme depletion. Fishers use pole-and-line, harpoon, trap, longline, and purse-seine gears to catch this valuable species. Since 1996, the World Conservation Union has listed the western population of Atlantic Bluefin Tuna as critically endangered and the eastern population as endangered.



### Rockfish, U.S. West Coast

Rockfish live long lives and have low fecundity, making them vulnerable to fishing pressure. Many commercially important rockfish species off the U.S. West Coast are overfished. Management measures like area closures to help populations recover are in place but have not yet proven successful.



### Atlantic Halibut

Fishers use bottom longlines and groundfish trawls to catch Atlantic Halibut. Long-lived and slow to mature, this fish is vulnerable to fishing pressure. Like Atlantic Cod, Atlantic Halibut in U.S. and Canadian waters crashed in the 20th century due to overfishing and remain depleted today.

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