

What's on the Table? Balancing our Needs. Food Production and Biological Diversity

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Secretariat
Convention on Biological Diversity
Montreal



WHAT ARE WE EATING? Towards a Canadian Food Policy



McGill

McGill Institute for the Study of Canada
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The Convention on Biological Diversity

Target:

“to achieve, by 2010, a significant reduction of the current rate of biodiversity loss at the global, regional and national levels as a contribution to poverty alleviation and to the benefit of all life on earth”

Biodiversity – the foundation of food production and dietary diversity

- Species: some 7000 species used historically
- Genetic Diversity: raw material for crop and livestock improvement
- Ecosystem services:
 - Nutrient cycling
 - Pest management
 - Pollination



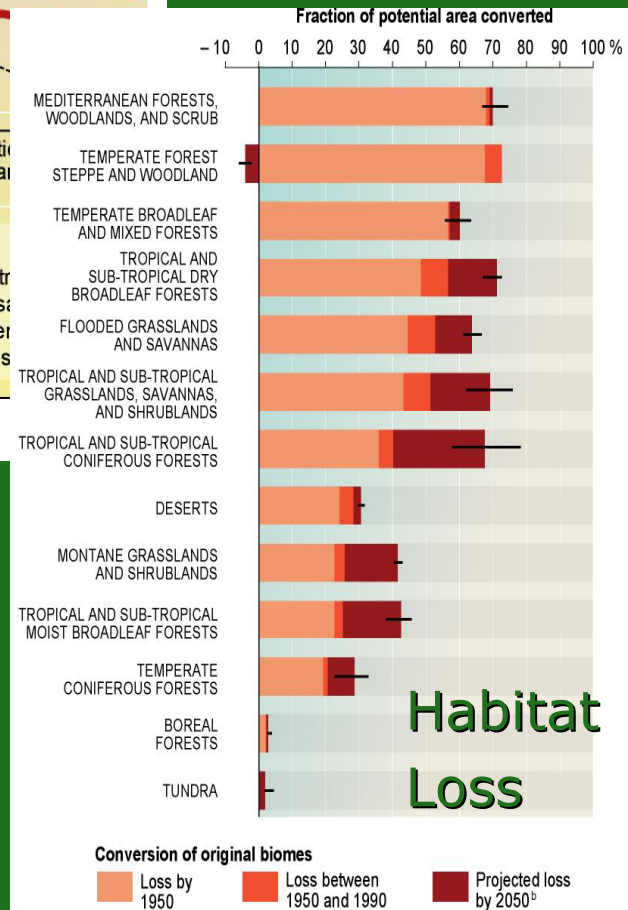
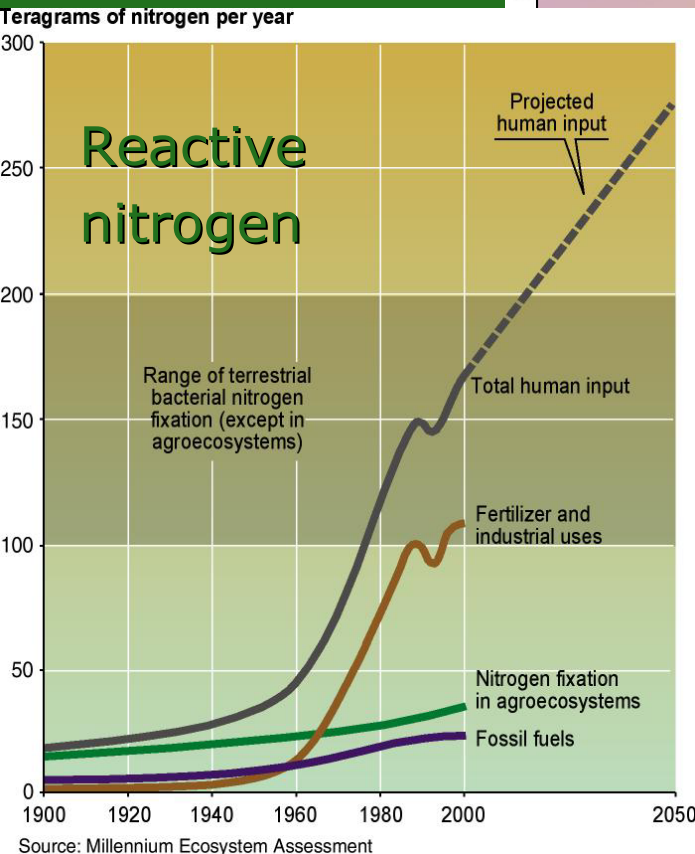
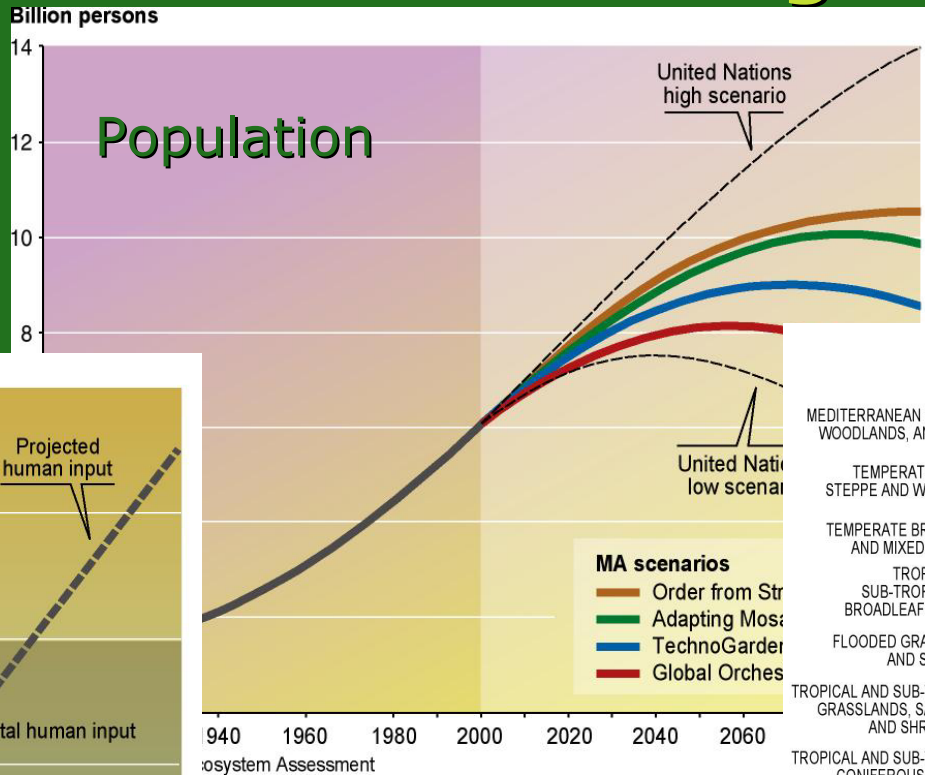
Impacts of Food Production on Biodiversity and Ecosystems



- Habitat Change (Land and Sea)
- Nutrient Loading
- Overexploitation



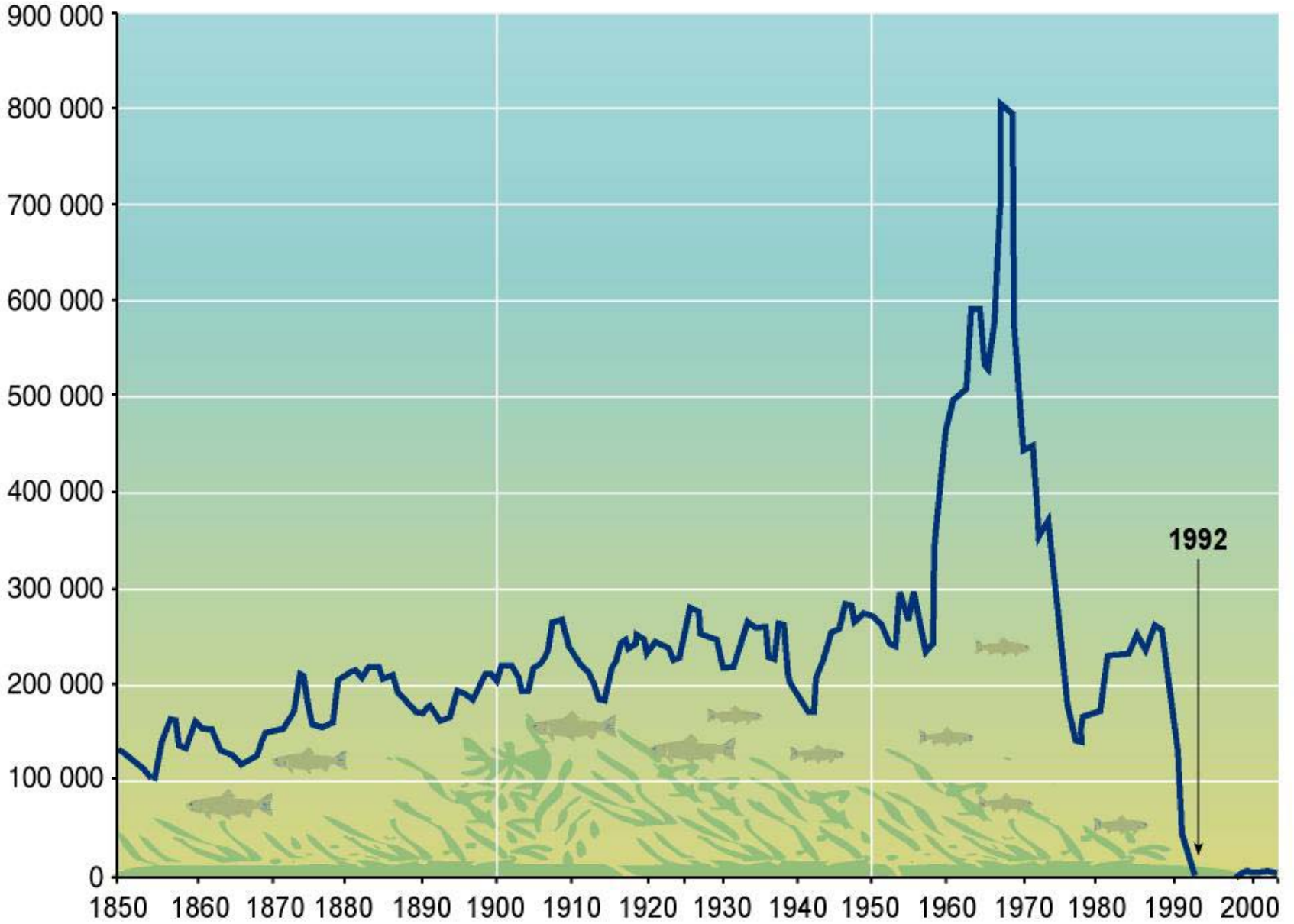
Increasing demand for food and increasing impacts



HUMPPF !...
CH'EST QUOI UN ÉCOCHYCHTÈME ?

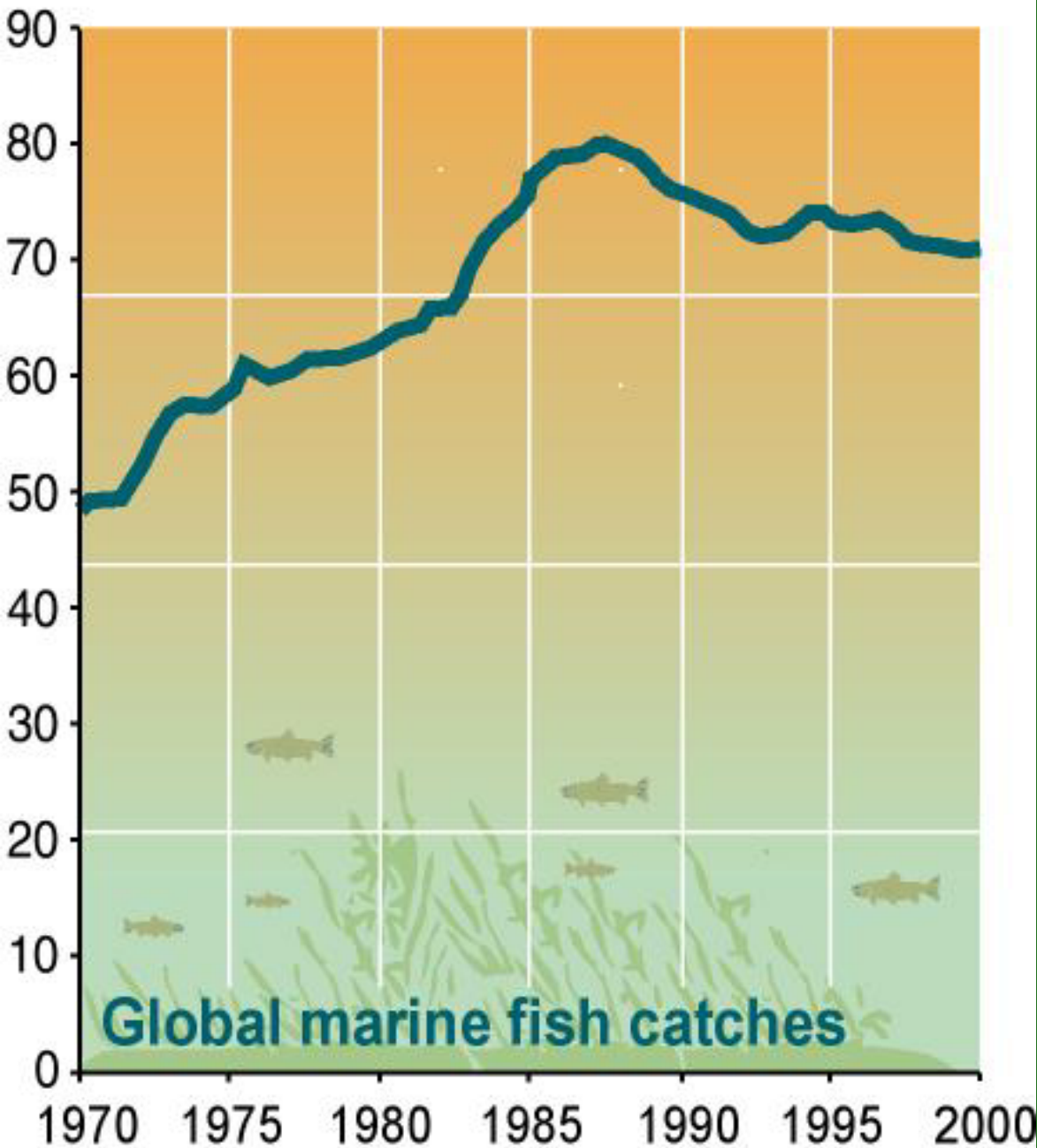


Fish landings in tons



Source: Millennium Ecosystem Assessment

Million tons

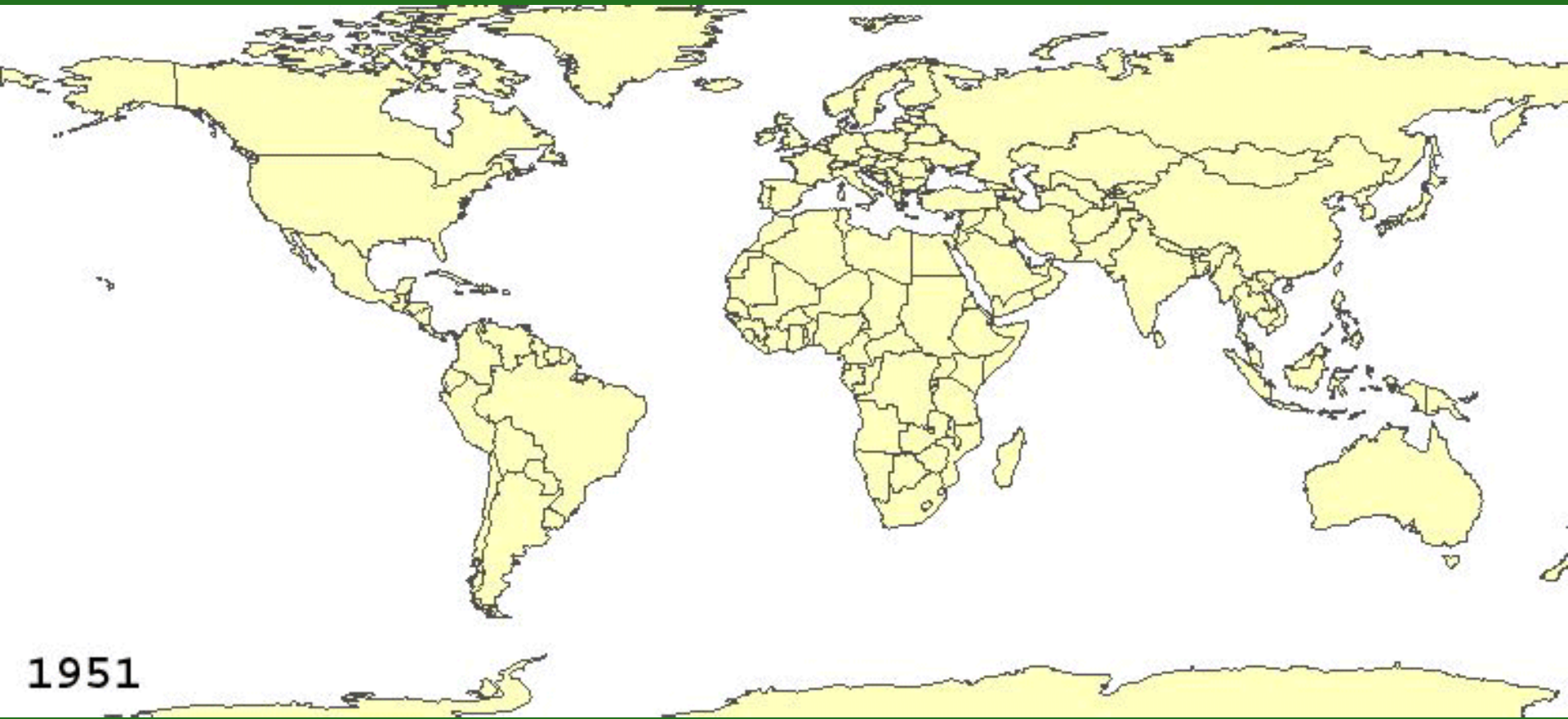


Global Fisheries
Peaked last
century

..... Despite
increased fishing
efforts

Source: Millennium Ecosystem Assessment

Geographic expansion of fisheries



1951



**Year of
Maximum Catch**

-  Pre-peak
-  Harvest peak
-  Post-peak





Generally Bad choices:

- Cod (Atlantic)
- Chilean Sea Bass
- Orange Roughy
- Blue Fin Tuna
- Farmed Salmon



Generally Good choices:

- Pacific Halibut
- Arctic Char
- Mackerel
- Hoki
- Tilapia



Business Guide to Sustainable Seafood



ALLIANCE for ENVIRONMENTAL INNOVATION
A PROJECT OF ENVIRONMENTAL DEFENSE

e
ENVIRONMENTAL DEFENSE
finding the ways that work



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, osetra, 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

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, wild and troll-caught
Mahimahi have short lives and withstand high fishing pressure. Pollack have high Mahimahi with little bycatch compared to

BEST CHOICES

Catfish (US farmed)
Clams (farmed)
Clams: Softshell/Steamers (wild-caught)
Crab: Dungeness, Snow (Canada)
Croaker: Atlantic*
Halibut: Pacific
Herring: Atlantic/Sardines
Lobster: Spiny (US)
Mussels (farmed)
Oysters (farmed)
Pollock (wild-caught from AK)*
Salmon (wild-caught from AK)*
Striped Bass (farmed or wild-caught*)
Sturgeon, Caviar (farmed)
Tilapia (farmed)
Trout: Rainbow (farmed)
Tuna: Albacore, Bigeye, Yellowfin (troll/pole-caught)

Northeast = Connecticut to Maine
Mid-Atlantic = North Carolina to New York
Southeast = Texas to South Carolina
US = United States, AK = Alaska

GOOD ALTERNATIVES

Basa/Tra (farmed)
Black Sea Bass
Bluefish*
Clams: Atlantic Surf, Hard, Ocean
Quahog (wild-caught)
Crab: Blue*, Jonah, King (AK), Snow (US)
Crab: Imitation/Surimi
Haddock (hook & line-caught)
Hake: Silver, Red and Offshore
Lobster: American/Maine
Mahi mahi/Dolphinfish/Dorado
Oysters (wild-caught)*
Scallops: Bay
Scallops: Sea (Northeast and Canada)
Soup/Porgy
Shrimp: Northern (Canada)
Shrimp (US farmed or wild-caught)
Squid
Swordfish (US)*
Tilefish (Mid-Atlantic)
Tuna: Albacore, Bigeye, Yellowfin (longline-caught)*
Tuna: canned white/Albacore*, light

AVOID

Chilean Seabass/Toothfish
Cod: Atlantic
Crab: King (imported)
Dogfish (Atlantic)*
Flounders/Soles (Atlantic)
Haddock (trawl-caught)
Hake: White
Halibut: Atlantic
Monkfish
Orange Roughy*
Salmon (farmed, including Atlantic)*
Scallops: Sea (Mid-Atlantic)
Sharks* and Skates
Shrimp (imported farmed or wild-caught)
Snapper: Red*
Sturgeon*, Caviar (imported wild-caught)
Swordfish (imported)*
Tilefish (Southeast)*
Tuna: Bluefin*

* = Not recommended
+ = Better than avoid

Seafood WATCH



Northeast Seafood Guide 2006

At Avoid They overfish in ways or the on.



Thank you!



BIODIVERSITY: Achieve the 2010 target!