

# OCEAN TRUST PARTNERS SUSTAINABILITY PROFILE



**MARCH 2011**

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# SUSTAINABILITY PROFILE

## Objective

The proliferation of seafood choice cards, seafood certification programs, and sensational media stories about the state of the oceans have generated greater awareness and interest in the sustainability of seafood. While standards ensuring sustainability have been introduced by government and industry, questions are still raised about the sustainability of products. For the past fifteen years, Ocean Trust has helped seafood companies address sustainability issues linked to their product lines allowing companies to continue sales during national boycotts, helping industry sectors address ecosystem issues related to their products, and assisting others turn negative campaigns into a positive partnerships for fisheries, wildlife and the environment. The following sustainability profile provides a summary on the sustainability of species to help companies with strategic and long-term sourcing and to address public and customer interest.

## Sustainability Profile

Ocean Trust's Sustainability Profile provides a review of company product lines and the sustainability status of species used with NOAA MSFCMA, FAO and World Bank Best Management Practices criteria. The sustainability profile will provide a brief summary of the status of each fishery, management system, ecosystem considerations, and any issues raised by third-party organizations. A brief evaluation of sustainability issues will be presented with recommendations for further action (i.e., monitor, further evaluation, address with supplier). The sustainability profiles can be used to augment product information on corporate web sites or in marketing material. For customers who ask about corporate sustainability policy, our profile allows sponsors to indicate that they monitor the sustainability of products and if so desired could provide Ocean Trust's sustainability profile or use it to answer questions referencing Ocean Trust. Corporate product profiles will not be disseminated by Ocean Trust, but serve as a tool for corporate strategic planning and use.

## Initial Scope of the Profile

Based on a review of the products in this profile, the majority of species used appear to be from sustainable sources. However, seven species (Atlantic salmon, Ahi tuna, Mahi Mahi, Orange Roughy, Sea Bass, Swordfish, Tilapia) are linked to consumer choice campaigns that have identified issues associated with the fisheries or production methods. The following profile provides an initial review of sustainability issues that have been linked to specific products.

National and international standards of sustainability have been established by appropriate fishery science agencies and organizations which have been used as the basis for determinations on sustainability. Annual stock assessments, and federal and international management actions also provide a peer-reviewed basis for sustainability determinations. In this review, Ocean Trust presents a summary of the science and management status for species covered in the sustainability review. This review has not interjected any independent standards developed outside of the purview of national or international organizations responsible for the management and sustainability of fishery resources and the marine environment, but presents a summary of the most recent scientific assessments and status reports in clear language without bias.

**SEAFOOD SUSTAINABILITY PROFILE  
2011**

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## **Introduction: Fish Crisis – Spinning Our of Control**

In 2004, an article in *Nature* written by two Canadian scientists, Ransom Myers and Boris Worm suggested that only ten percent of large open ocean fish remain in the sea. The story spread across general media publications with headlines claiming there were no more tuna or other large fish in the ocean. This article was followed by reports from the Pew Oceans Commission and environmental groups that said the oceans were in crisis. Several groups still promote this perspective with many publishing lists of fish to eat and those to avoid. While efforts to improve science-based management and the sustainability of marine resources are always needed, the series of negative reports seem to have only contributed to the public confusion on the sustainability of seafood.

What is often overlooked is the progress that has been achieved by dedicated fishery scientists and well-established national and international programs in place to assure sustainable management of the oceans. The recovery of North Atlantic swordfish, New England haddock and scallops; the success of cooperative industry management and research partnerships in the North Pacific and Atlantic fisheries; and the remarkable progress with endangered sea turtle recovery and reduction of shrimp fishery bycatch in the Gulf of Mexico demonstrate that our system of management is working. Most major US stocks which make up 99% of US landings are fished sustainably. Of the 894 federally managed fish stocks, only 8.5% are classified as overfished and 6.7% are experiencing overfishing, and the major US stocks that are overfished are either recovering under rebuilding plans or otherwise protected by federal law.

We are in a period of conservative management where a precautionary approach, ecosystem considerations, closed areas, bycatch reduction, and essential fish habitat are already part of the regulatory process. Recent efforts have focused on the impacts of fishing on the environment, while research on the impacts of the environment on fishing is just beginning. “El Nino” like ocean events have caused stocks to rise and fall for hundreds of years long before fishing existed. In fact, the frequently cited crash of the Monterey sardine fishery had more to do with regime shifts in the ocean than fishing.

There are challenges to overcome with overcapacity in fisheries, and illegal and unregulated fishing, but there are also proven solutions for these problems that showcase what sustainable fishing practices can achieve. There is no doubt that we haven’t seen the last fish crisis headline. Still, the progress made suggests we can be optimistic about the future of the oceans.

Ocean Trust prepared this review as a concise summary on the status and sustainability of major seafood products in the US market. This review is based on the latest peer-reviewed science from lead federal, state and international agencies and institutions responsible for monitoring the status of seafood resources. Each subject is presented as individual reports which can be duplicated and used as handouts for distribution to customers or staff with specific questions on a species by species basis. Source references are given on each species and subject page. It is our hope that this report will help clarify current questions on the sustainability of seafood.

Thor Lassen  
President



# WORLD FISHERIES SUMMARY

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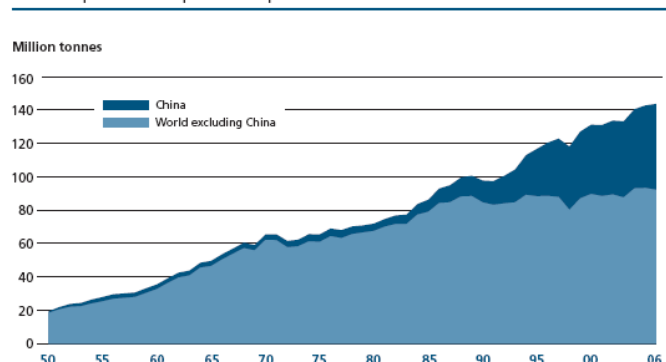
MARCH 2011

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## WORLD LANDINGS RISE WITH SHIFTS IN STATUS MSY & OVERFISHED STOCKS RISE DEPLETED STOCKS FALL

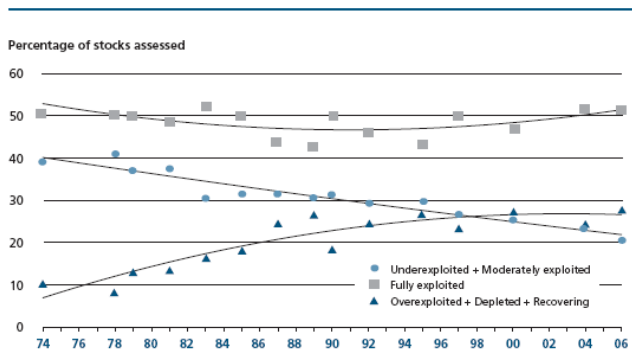
World fisheries production has remained relatively stable since the early 1990's with the exception of marked fluctuations driven by catches of anchoveta, a species susceptible to changing ocean conditions from the El Niño Southern Oscillation. After declining to 79.2 million tonnes in 1998 due to the 1997-1998 El Niño, total production of marine capture fisheries increased to 86.0 million tonnes in 2000. In 2009, capture marine production was 90.0 million tonnes reduced again due to environmentally driven fluctuations in anchoveta catches. Preliminary data (excluding China) show a 3% increase in total capture production in 2007.

World capture and aquaculture production



The state of marine fishery resources also shows that the majority of stocks are fished at maximum sustainable yield (MSY) levels and the proportions of overexploited, depleted and recovering stocks have remained relatively stable in the past 10-15 years, after increasing trends in the 1970s and 80s with the expansion of fishing effort. In 2008, 53% of stocks were producing catches that were at or close to their MSY (fully fished/fully exploited); and 15% were moderately fished or under fished with room for growth in production. Overfished stocks make up 28%, which includes both growth and recruitment overfishing, and 3% are classified as depleted meaning that recruitment has dropped below sustainable levels and that there has been a loss in production. It does not mean that these stocks are depleted (i.e., gone). One percent are classified as recovering stocks.

Global trends in the state of world marine stocks since 1974



Majority of fisheries managed at or below MSY levels

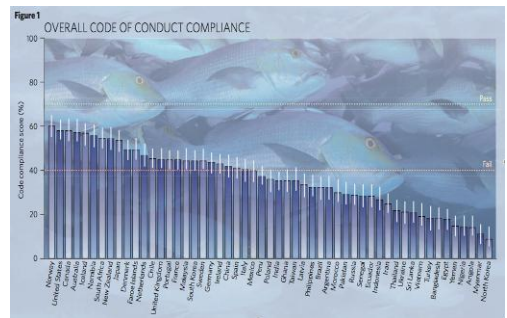
FAO reports that overall 85% of the world fish stocks for which assessment information is available are reported as fully exploited or overexploited, and thus requiring effective and precautionary management. This statement combines fisheries in overfished and depleted categories with fisheries that are “fully-fished” at sustainable levels (53%). Other reports combine these classifications with misleading statements suggesting the world’s commercially-fished species have been “fished to or beyond the brink at which their populations can easily sustain themselves.” In these statements, stocks fished sustainably at MSY (53%) are mixed with overfished (28%), depleted (3%) and (1%) recovering stock classifications. Phrases like “beyond the brink” are used to dramatize statements. Stocks “fish to” levels that can be sustained are fished at their maximum sustainable yield (MSY), the target levels of sustainable

exploitation that fishery managers work to achieve. Combining these stock classifications with overfished or depleted stocks can be misleading. The FAO data shows that stock conditions overall have remained stable with the majority of stocks (fully-exploited) managed at MSY (53%) and with underfished and moderately fished comprising 15%, it is clear that the majority of fishery stocks (68%) are being fished at or below sustainable levels.

### OVERFISHING & STOCK STATUS

Overfishing classifications assigned by FAO are based on either recruitment overfishing or growth overfishing. Recruitment overfishing occurs when fishing effort is thought to reduce the number of new recruits below levels needed to sustain stocks on a long-term basis. Growth overfishing refers to the size of fish harvested before they grow to the maximum size after which any further increase in growth is offset by natural mortality. Stocks classified as growth overfished may be healthy and abundant, but the yield per fish is not maximized. Growth overfishing may indicate an increase in fishing pressure or simply may be an artifact of the gear used or market size preference with no real relationship to sustainability of the stock.

Nineteen percent of fish stocks assessed by FAO are considered overfished. We cannot report on the breakdown between growth and recruitment overfished stocks in FAO assessments which is important as growth overfishing may not be related to stock status. Furthermore, it has been suggested that an overfishing classification alone is not as important as the management system used in fisheries. Most fisheries in nations with well-established management programs which do have overfished classifications or are experiencing overfishing are under management to eliminate overfishing or rebuild stocks. This is not reflected in FAO classification data.



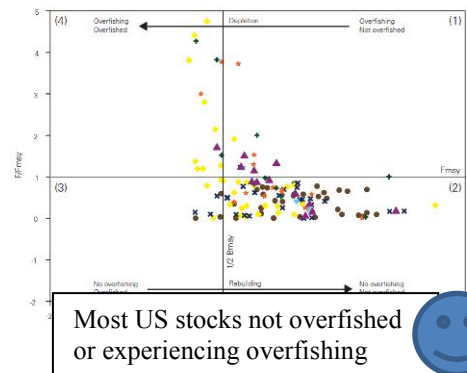
Norway, US, Canada, Australia, Iceland, Namibia, South Africa, New Zealand lead in FAO Code of Conduct compliance

Whether a stock is under active management is a more important consideration of sustainability, than annual fluctuations in fishery classifications. As expressed during a 2010 workshop on Science & Sustainability sponsored by Ocean Trust:

*“We should not be fixed on the stock status, but the fishery management system as stocks fluctuate over time. If you are part of a management plan you are sustainable, it should not be a problem if you are overfishing in one year if you are in framework and plan.”* Kevin Sullivan, New Zealand Ministry of Fisheries.

*“If seafood is harvested under a fishery management plan then it should be sustainable because the stock is in a rebuilding program (for overfished stocks) or harvested at sustainable levels. If it is federally managed and in compliance of what the law requires, it has to be sustainable.”* Roy Crabtree, NOAA.

SOURCE REFERENCES: United Nations Food and AGRICULTURE Organization (FAO). 2010. Status of World Fisheries and Aquaculture [www.fao/fisheries.org].





# US FISHERIES STATUS SUMMARY

SUSTAINABLE SEAFOOD REVIEW

DECEMBER 2010

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## US STOCKS WELL MANAGED US STOCK TREND POSITIVE

In the most recent Report to Congress on the Status of US Fisheries issued in May of 2010 NOAA Fisheries announced that the general biological trend for the status of US stocks continues to be positive. A stock subject to overfishing has a fishing mortality (harvest) rate above the level that provides for the maximum sustainable yield. A stock that is overfished has a biomass level below a biological threshold specified in its fishery management plan.

In 2009, NMFS reviewed 522 individual stocks and stock complexes, and had sufficient data to determine whether overfishing was occurring in 250 of these stocks or stock complexes. It found 212 (85%) are not subject to overfishing and 38 (15%) are subject to overfishing. These percentages represent a continuing improvement from past reports. The number of stocks subject to overfishing *decreased* from 48 in 2006 to 38 in 2009. Two new stocks are no longer subject to overfishing from last year: *scup – Atlantic Coast ad thorny skate – Gulf of Maine*, and *pink shrimp – Gulf of Mexico* as the previous assessment was re-evaluated and determined to have been invalid. No new stocks have become subject to overfishing in 2009.

NMFS also was able to determine if stocks were overfished for 203 stocks. It found 157 (77%) are not overfished and 46 (23%) are overfished. These percentages represent an improvement from 2006, in which 75% were not overfished and 25% were overfished. The number of overfished stocks *decreased* from 47 in 2006 to 46 in 2009.

Five stocks are no longer overfished: *scup – Atlantic coast*<sup>3</sup>, *winter skate – Georges Bank/Southern New England*, *bocaccio – Southern Pacific Coast*, *darkblotched rockfish – Pacific coast*, and *sailfish – Western Atlantic*. Four stocks have become overfished: *canary rockfish – Pacific coast*, *coho salmon – Washington coast: Queets*, *coho salmon - Washington Coast: Western Strait of Juan de Fuca* and *Petrale sole – Pacific coast*. One stock, previously listed as unknown, has been determined to be overfished: *gag – Gulf of Mexico*.

Four stocks have fully rebuilt to 100% of their BMSY levels: *Scup - Atlantic Coast*, *Black sea bass – Mid-Atlantic Coast*, *Blue king crab – St. Matthews Island*, and *Swordfish – North Atlantic*. Management of four additional stocks has resulted in biomass levels of at least 80% of their maximum sustainable levels: *greenstriped rockfish – Pacific coast*, *splitnose rockfish – Pacific coast*, *rex sole – Gulf of Alaska*, and *walleye pollock – Western/Central Gulf of Alaska*.

Since 1997 fifty-nine (59) stocks have been removed from the list of stocks subject to overfishing and the number of overfished stocks has declined from 106 to 46 stocks which represents a continual positive trend. These stocks are being managed under recovery programs, which limit fishing activities to allow for stock rebuilding and some economic stability for local fishing communities. Rebuilding programs are now in place for almost all remaining overfished stocks.

Since 1997 overfishing has been eliminated in 59 stocks & overfished stocks reduced 43%

The Fish Stock Sustainability Index created by NMFS in 2000 to measure sustainability on 230 key stocks in ending overfishing and rebuilding stocks to levels providing maximum sustainable yield has increased by 60% [www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm](http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm).



# PACIFIC COD: ALASKA/BERING SEA

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SAMPLE PROFILE

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STOCKS ABUNDANT, NO OVERFISHING, MODEL MANAGEMENT

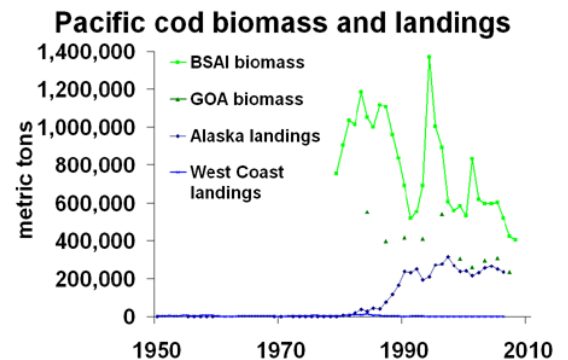
Pacific cod (*Gadus macrocephalus*) is harvested primarily from the Gulf of Alaska (GOA) and the Bering Sea/Aleutian Islands (BSAI). It is the second most dominant commercial groundfish catch off Alaska. Pacific cod harvests from the U.S. West Coast are on average only 1% of total U.S. harvest. Pacific cod are harvested with bottom and pelagic trawls, long lines and pots.

## MANAGEMENT

Pacific cod fisheries off Alaska are managed under the North Pacific Fishery Management Council's Groundfish Fishery Management Plans (FMPs) for the Bering Sea Aleutian Islands (BSAI) and the Gulf of Alaska (GOA) management areas. Both plans currently control the Pacific cod fishery through permits and limited entry, catch quotas (TACs), gear restrictions, closed waters, seasons, bycatch limits and rates, and other management measures. Pacific cod is often hailed as being one of the best managed fisheries in the world.

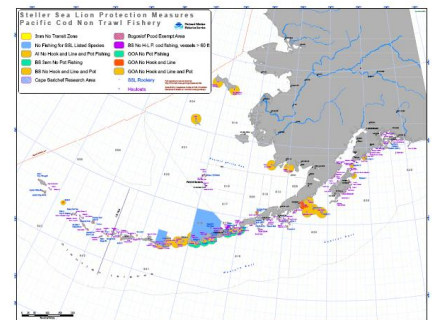
## STATUS

Pacific cod populations are abundant throughout their range and overfishing is not occurring. Gulf of Alaska and Bering Sea biomass estimates are both very close to their target levels to support maximum sustainable yield ( $B_{MSY}$ ) from the stocks.



## ECOSYSTEM

White Pacific cod are an abundant fish resource, the removal of cod by fishing may affect the food chain by reducing the amount of cod available as prey to predators, as well as reducing predation pressure on species that Pacific cod eat. Pacific cod is a major prey item for endangered Steller sea lions around Kodiak Island. There are concerns that the fishery depletes important sources of prey for Steller sea lions, as much of the area used by the fishery is designated as critical habitat for the endangered sea lion. In order to minimize competition between fisheries and Steller sea lions, no fishing zones have been established around Steller sea lion rookeries as illustrated.



## BYCATCH

Species caught as bycatch in the hook and line fishery are grenadier, sculpins, shark, sea stars, and skate along with some bycatch of seabirds. There has been some success with measures to mitigate fishery-seabird interactions. Bycatch in the BSAI trawl fishery mainly consists of large sculpins, jellyfish, skates. New flatfish trawl net designs are being tried in efforts to reduce bycatch of rockfish. Large sculpins and sea stars are caught as bycatch in the GOA pot fishery.

Source: NOAA Fish Watch ([www.nmfs.noaa.gov/fishwatch](http://www.nmfs.noaa.gov/fishwatch))



# OCEAN TRUST

*SUSTAINING THE OCEANS & COMMUNITIES DEPENDANT ON THE SEA*

## SUSTAINABLE OCEANS PARTNERSHIP

### Our Mission

We are connected to the sea by the food we eat, the coastal communities where we live, and the livelihood of families who depend on the sea. Fishing and fish farming families are the first to see changes in the ocean and coastal zone, and make real sacrifices to restore a balance in the marine environment. So solutions for sustainability need to work for the resource as well as the coastal communities tied to the sea.

### Our Partnership

Ocean Trust is an award-winning ocean conservation foundation building science, conservation and industry partnerships for the sustainability of the oceans. Our partnership is focused on results oriented programs and science-based assessments to provide a link to sustainable fisheries, wildlife and the environment. It encompasses:



### An Award Winning Approach

Ocean Trust's partnership presents a credible approach that is distinguished by several top conservation awards (2009 Texan of the Week, 2008 Texas Environmental Excellence Award, 2007 Gulf Guardian EPA Award, 2006 National Wetlands Conservation Award, 2006 Coastal America Award, 2005 Department of Interior Cooperative Conservation Award, 2005 Leadership recognition at White House Cooperative Conservation Conference, 2004 NOAA Environmental Hero, 2000 Seafood Business Person of the Year).



### Substantive Results Oriented Programs

In partnership with federal agencies, foundation and industry sponsors, and community organizations, Ocean Trust has taken a positive, results-oriented approach that brought together commercial, sports and environmental interests and led the restoration of marine resources and coastal estuaries that serve as nursery and habitat areas for important fishery, shellfish and wildlife resources like shrimp, crab, oyster, clams, scallops, salmon, sturgeon, sports fish and migratory waterfowl throughout the United States including the largest wetland estuary restoration in North America. Some current projects include:



- Hopper Gear Development for Gulf/South Atlantic Shrimp Fishery
- Grouper Reef Construction, North Carolina
- Mangrove Reserve Restoration: Cortez, Florida
- Derelict Fish Trap Removal, Florida
- Bahia Grande Estuary Restoration: Brownsville, Texas
- Science & Sustainability Workshop US & International Fisheries
- Mexican Shrimp Re-certification Assessment: Mexico
- Chilean Sea Bass Enforcement Workshop w/CCAMLR



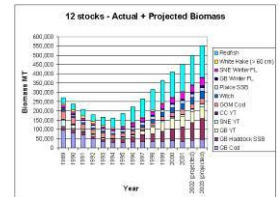
## Marine Wildlife Restoration

With support from its members, Ocean Trust continues to provide support and maintenance for the second largest Gulf of Mexico sea turtle restoration camp in Mexico where biologists protect and monitor nesting activities of the endangered Kemp's ridley sea turtle. In the Gulf of California, Ocean Trust worked with Mexican shrimp industry and environmental groups to reach an agreement to protect the endangered California harbor porpoise.



## Seafood Sustainability Profiles & Stock Status Reports

The Ocean Trust partnership also monitors and provides guidance on the status of resources and sustainability of seafood with straight-forward summaries of the latest fisheries science and assessments of media articles and campaigns related to the sustainability of the ocean. Ocean Trust offers Seafood Sustainability Profiles for select species, and a science-based approach to FAO seafood sustainability assessments on the management, status and ecosystem considerations of stocks using internationally and nationally vetted standards.



## Solutions for Sustainability

While other organizations advocate product boycotts as a solution, Ocean Trust's conservation partnership has consistently offered solutions to promote the sustainability of marine resources and the coastal communities who depend on the sea. For every species, there are multiple stocks and sources worldwide which are not distinguished in seafood choice campaigns. Where problems exist, this approach does not solve issues in fisheries and can adversely impact local fishing communities that make the real sacrifices for the sustainability of the resource. We turn negative attacks into positive solutions:

- When shrimpers were confronted with sea turtle impacts, Ocean Trust helped set up and still maintains a restoration partnership for the most endangered sea turtle
- When shrimp farmers were challenged with mangrove impacts, Ocean Trust helped farms set up projects to incorporate mangrove conservation into farm operations
- When Give Swordfish A Break ask chefs to stop buying swordfish, Ocean Trust showed stocks were rebuilding and set guidelines to allow for continued sale
- When concerns surfaced with California harbor porpoise, Ocean Trust help industry reach consensus with environmental groups to protect the endangered species
- When illegal fishing on Chilean sea bass was raised, Ocean Trust established a program to raise funding for enforcement and monitoring of legal sea bass fishery



## Public Outreach & Education

Ocean Trust also offers retail and foodservice countertop and point of purchase material as public education and outreach programs to educate and engage the consumer and help partners communicate their commitment to the sustainability of the sea.

## Model Partnerships in Fisheries, Wildlife & the Environment

Ocean Trust's track record demonstrates its commitment to move beyond public campaigns and focus on positive conservation partnerships that bring people together for the protection of fish, marine wildlife and the environment. Our goal is to sustain the oceans and the coastal communities that depend on the sea.

