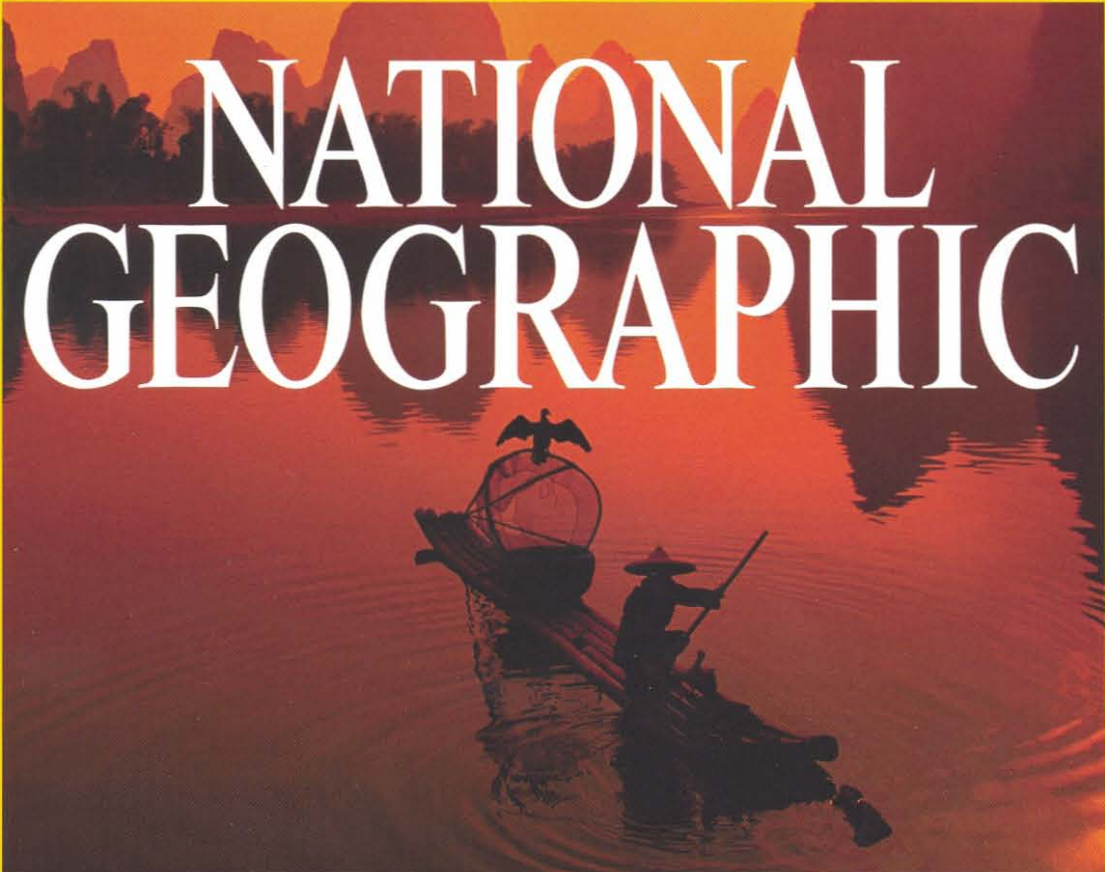


SPECIAL  EDITION

NATIONAL GEOGRAPHIC



EarthPulse



THE ESSENTIAL VISUAL REPORT ON GLOBAL TRENDS

The Seas Are Depleted

We once thought of the seas as inexhaustible, but no longer. We have hooked, netted, and dredged many of the most popular fish species down to 10 percent or less of their historical populations. Two-thirds of high-seas fish stocks, including sharks, bluefin tuna, and swordfish, are already fished beyond what nature can replace. Fish farming has boomed to feed a growing demand that wild seafood can no longer supply. In 1980, just 9 percent of the fish we ate came from fish farms, compared with 43 percent today. But aquaculture has environmental burdens of its own, including coastal pollution and the spread of disease to wild populations.

COMPETING FOR THE LAST FISH

The global fishing fleet has moved farther offshore and into deeper waters in search of new stocks. Peru benefits from productive coastal waters, while Europe is the largest overall importer of fish.

Marine catch by country, 2004

Million tonnes



Average annual marine catch 2000-2004

Tonnes per square km/year



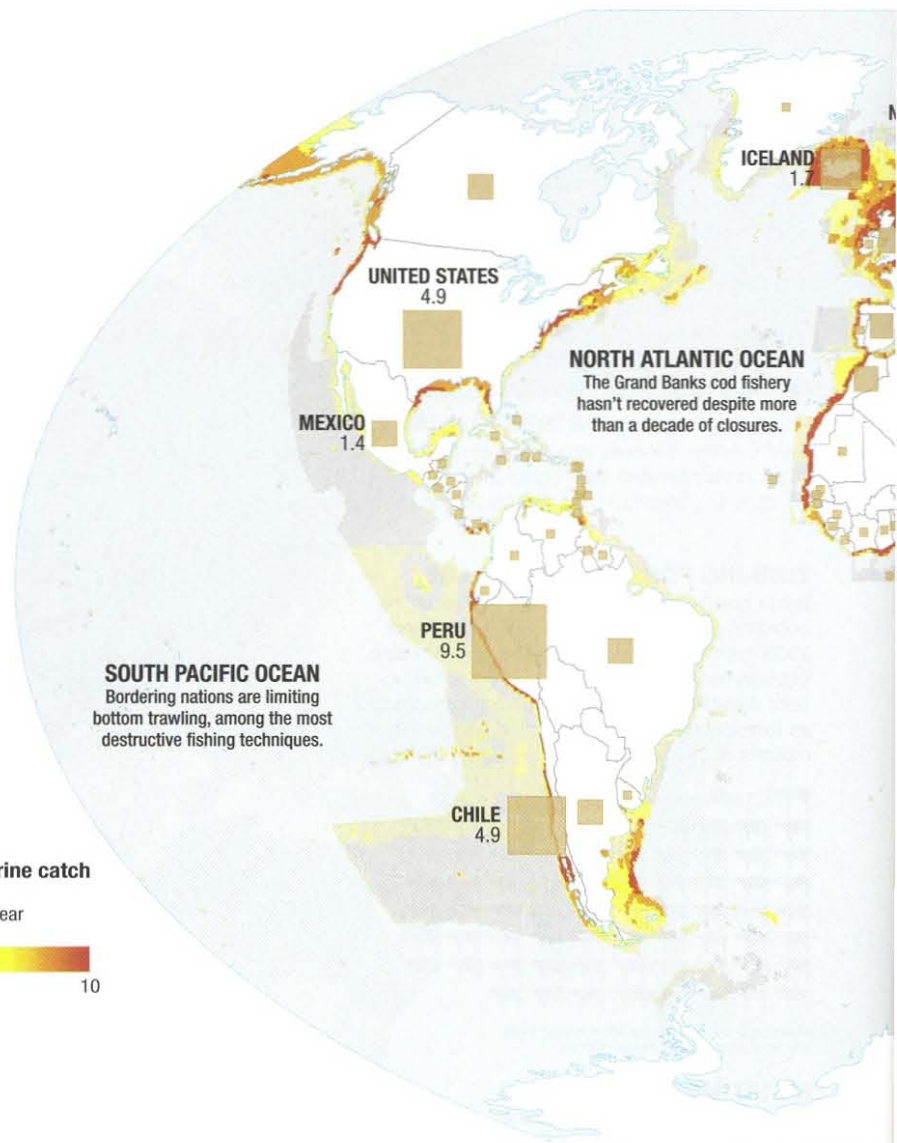
SOURCE: SEA AROUND US PROJECT/PAULY, D. 2007

SUBSIDIZING DESTRUCTION

When government fishing subsidies started in the 1950s, more boats at sea meant more fish at the dock. Now, they hasten the collapse of the resource and the industry by sending too many ships after too few fish. Subsidies for fishing gear also threaten "non-target" species such as the sea lions entangled in a gill net, pictured below.



RICHARD HERRMANN/SEAFRCS.COM



NORTH ATLANTIC OCEAN
The Grand Banks cod fishery hasn't recovered despite more than a decade of closures.

SOUTH PACIFIC OCEAN
Bordering nations are limiting bottom trawling, among the most destructive fishing techniques.

30

billion U.S. dollars are spent annually to subsidize the fishing industry

Most subsidized fishing industries by country, 2000

Billion U.S. dollars



SOURCE: SUMAILA, U.R. AND PAULY, D. 2006

"There is nowhere left in the ocean not overfished."

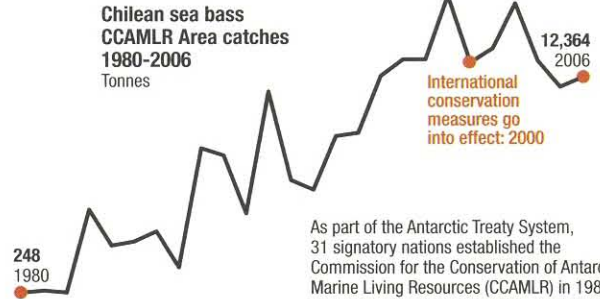
- Ransom Myers, fisheries biologist



PAYING THE PRICE FOR POPULARITY

Soon after Patagonian toothfish (also known as Chilean sea bass) became popular with diners in the mid-1990s, sales topped \$100 million in the U.S., a major market. Like most fish from deep, frigid waters, Chilean sea

bass grow and reproduce slowly, making them especially vulnerable to overfishing. Pirate fishers working around Antarctica and the southern oceans may catch up to twice as much Chilean sea bass as legal fishers.



As part of the Antarctic Treaty System, 31 signatory nations established the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) in 1982. The convention area consists of all waters bounded by Antarctica and specific sectors of the southern Atlantic, Indian, and Pacific Oceans.

INDIAN OCEAN
Global fleets are increasingly working Indian Ocean waters—a concern for bordering countries.



Chilean sea bass (Patagonian toothfish)
Dissostichus eleginoides

Maximum size: 215 cm
Lifespan: 40-50 years
Distribution: S.W. Atlantic: Southern Chile around the coast to southern Argentina, the Falkland and South Georgia Islands. S.E. Pacific: S.W. Pacific: Around Macquarie Island. Indian Ocean: In seamounts and sub-Antarctic islands.

TAKING STEPS TOWARD RECOVERY

An international commission called CCAMLR oversees fishing and other activities in the oceans around Antarctica. Concerns that illegal fishing could destroy the Chilean sea bass fishery led to stricter monitoring in 2000. Progress continued when the South Georgia fishery

was declared "sustainable" in 2004 by the nonprofit Marine Stewardship Council (MSC). Pirate fishing continues in more remote waters, however. As a leading importer, the U.S. is instituting tougher tracking and regulations to counter the illegal trade.

South Georgia fishery (Subarea 48.3) Chilean sea bass catch, 1980-2006
Tonnes

