10 Solutions to Save the Oceans

We asked a select group of innovative thinkers to go out on a limb.
Arresting Evidence
State-of-the-art forensic technology is forcing us to face the reality that even our most applauded trade bans and moratoriums aren’t working. From ivory cell phones to shark fin soup, it’s all available—at a price.
BY NATASHA LODER

The Last Gladiators
How joyful, really, is the resurrection of a species if the modern world cannot find a single haven for it and if it seems doomed to slip into limbo once more anyway?
BY SCOTT WEIDENSAUL

10 Solutions to Save the Oceans
We asked a select group of innovative thinkers to go out on a limb. MARTIN HALL, DANIEL PAULY, DAVID CONOVER, AMANDA VINCENT, KIMBERLY DAVIS, CARL SAFINA, GEORGE SUGIHARA, USSIF RASHID SUMAILA, AND TUNDI AGARDY

Tour de Turtle
Online game captures people’s attention and stirs their conscience

Identified Flying Objects
An automated birdwatcher scans the skies for rare species

Hunting Apparel
Neoprene cat bib protects small birds, mammals, and reptiles

Cheap Labor
Fake fruits lure bats to replant denuded rainforests

Nothing to Declare
DNA fingerprinting cracks down on illegal timber harvest

Snakes on Planes
As the planet is increasingly crisscrossed by air traffic, we’ve unwittingly created a network of invasion hotspots

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We can still savor seared *ahi* and grilled swordfish steaks—they have the best meat and few bones, after all—but we must reserve them as a luxury product. As long as we let the current tastes of the richest nations dictate our ocean harvests, it will be extremely difficult to reverse the overexploitation of many species. We must redistribute our harvests in an ecologically sensible way, not by adding new species to the current harvest but rather by substituting catches of depleted stocks with fishes lower on the food web.

People who are determined to eat top predators regardless of the conservation cost should consider another fact. In our amazing lack of common sense, we already catch thousands of tons of anchovies each year; but instead of consuming them directly, we grind them up and ship them to farms halfway around the world to feed chickens, pigs, and farmed fish. This practice thrives in part because fishmeal is often as cheap as plant-derived animal feeds, yet it wastes a huge source of available protein—not to mention the fuel consumed for transportation.

In some parts of the world, the message is getting through. In Peru, which has contributed up to half the world's fishmeal since the 1950s, the anchovy is beginning to be embraced as fine food. During “Discover the Anchovy Week” last December, some 18,000 people tasted anchovies at 30 restaurants in Lima, the nation's capital. Now fresh anchovies are available in many of Lima's markets, and the government is supplying anchovies as part of its food security program.

It won't be easy. But we should follow the lead of people who fish to feed their families and teach their kids not to be fussy about what is on their plates.

—Martin Hall is Chief Scientist of the Dolphin Tuna Program at the Inter-American Tropical Tuna Commission.

Eat More Anchovies

Eat lower on the marine food web and tap into a bountiful supply of protein

By Martín Hall

How many people do you know who make lions, tigers, or wolves a mainstay of their diet? On land, no one looks to the top of the food chain for protein, yet that is exactly the faulty logic we apply to the sea. Our growing demand for tuna, shark, swordfish, and other top marine predators drives their prices up and encourages fishers to catch more—in many cases threatening the longevity of the stocks. The good news is that we don't have to stop eating fish to preserve these gastronomic delights for the future—but we do have to change our eating habits.

The statement that we are over-exploiting the oceans, although true in terms of many of the species we now select, is actually false in terms of protein production. Consider an oversimplified example: it takes close to 60 million metric tons of potentially edible fish per year to feed the three million metric tons of the three major tropical tuna species we harvest annually. If we could replace some of our tuna sandwiches with the anchovies, sardines, squids, and other species the tuna eat, we would open up a substantial supply of protein that could feed millions more.