OUR WAR AGAINST OUR WATER

Will It Be Armistice or Armageddon?

In 1987, marine biologist Sam LaBudde secretly videotaped the drowning of thousands of dolphins during four months of tuna fishing operations while on board a Panamanian tuna seiner. Release of the tape set off a storm of international protest and resulted in substantial changes in U.S. marine-mammal protection. As part of the research undertaken by the Honolulu-based group Euskrenet in 1989, Mr. LaBudde helped to expose the devastation caused by the Asian red-sea dolphin driftnet fleet. The HSUS and several other groups assisted in underwriting this expedition.

Mr. LaBudde has worked with river dolphins in China (in an effort also aided by The HSUS) and walruses and other marine mammals in Alaska. He is currently a biologist with Friends of Animals.

In the same way that the area west of the Appalachians was once known as the Wilder- ness, it was not so very long ago that the vastness of the seven seas was hailed as the last frontier. As has been the case with all of those vast pristine fastnesses designated as frontiers and summarily ravaged by the same human afflictions of greed, ignorance, and indifference that have resulted in annihilation for entire ecosystems and thousands of terrestrial species. A logical extrapolation of human activities and their effect on the greater marine habitat would indicate a similar fate for the oceans.

If one could imagine a "medical plane-tologist" diagnosing the health of the Earth in the same way that a physician views a human patient, it seems more than likely that the human species would be perceived as a global virus or bacterium raging out of control. In viewing the Earth's oceans and waterways as a circulatory system within a living being, it is easy to compare the effects of humans on aquatic systems to those caused by some type of infectious disease within the human bloodstream. That our "standard of living" threatens the life of our host planet is all too clear. It might even be appropriate to return it to the planet's "standard of dying," so rampant is our depopulation of nature. What is not so obvious is what, if anything, is going to be done about it. We must first decide whether we want to adopt an allopathic approach that treats symptoms or a homeopathic one that entails an assessment of the causes for the disease (ourselves) and ways to reinforce the efforts of the body (the Earth) to heal itself.

The simplest way of dealing with any problem is to prevent it from ever arising. The old adage "an ounce of prevention" is particularly relevant in the context of assuring health for the oceans and the environment in general. Despite what industrialists and policymakers like to tell us about how expensive it is to stop pollution, it is far more costly to deal with its long-term consequences and effects, effects that are, in some cases, beyond our power to rectify. Certainly, no one could argue that it's easier to remove PCBs from the oceans than it is to stop their release into the atmosphere and waterways. No one would ever think to adopt an allopathic approach to dealing with the hundreds of terrestrial species to which PCBs are toxic.

Our "standard of living" is far in excess of what it would have cost initially to construct vessels with puncture-proof fuel cells. Prince William Sound was, without question, the crown jewel of North American coastal ecosystems. Neither Exxon nor anyone else can ever replace the thousands of orcas, porpoises, and other animals that died as a result of slow poisoning and exposure to toxic crude oil. Nor is there the slightest hope that anyone can, in some way, compensate for undermining the purity and sanctity of the land and its wild denizens; all have been affected and will likely bear traces of the spill for years. As a sometime Alaskan whose coastal property faces south on the spill area, I can assure you that the sight of wheeling flocks of seabirds was priceless. We can only hope that they return.

Keeping the oceans clean and healthy is much more cost efficient than trying to dote out first-aid when disaster strikes. More importantly, the war of attrition on the planet's flora and fauna and the battle to keep many species and ecosystems in the global picture need not be fought in last-minute desperation. The long-term economic costs created by en-
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A beached sea lion, fatally caught in a six-pack holder, awaits death. Ocean debris is increasing alarmingly.

environmental mismanagement far exceed any shortterm profits or convenience afforded by such policy. We can only hope that we will soon realize that environmental destruction must be paid for, and that, in most instances, financial restitution for environmental damage falls far short of actual costs.

PCBs, heavy metals, and organic-pollutant levels continue to rise in the oceans, as do their concentrations in virtually every type of marine or aquatic organisms known to science. Overfishing and the use of rapacious and indiscriminate fishing methods like driftnetting have reduced the abundance of many marine species to their lowest levels in human history: a number of marine species now suffer on the brink of extinction. Pacific walruses are being slaughtered for their ivory faster than they can reproduce, and coastal development is destroying their fertile feeding grounds within the limited wetland areas at a rate comparable to that visited upon the rainforests. Ocean depletes may soon result in sufficient penetration of ultraviolet light to initiate destruction of marine phytoplankton—the source of two-thirds of the Earth's oxygen production. All over the planet, clean freshwater rivers are transformed into outflow channels for industrial effluvia and human waste, as the billions of people within developing nations struggle to achieve modernization in the style of the United States, Japan, and western Europe. As if this were not enough, France continues atomic testing in the Pacific, and a number of countries, including the United States and Japan, continue to push ahead with plans for strip-mining the ocean floor, a technology that could sublimate coral reefs, destroy the viability of regional ecosystems, and sterilize vast areas of the world's oceans. Let us welcome our grandchildren to the third millennium.

It has been the easiest thing in the world for humans to adopt a policy of abuse toward water. What could be more convenient than a natural, gravity-driven system for waste removal that transports all undesirable material far away and deposits it into a seemingly limitless expanse for dilution? The first time anyone really paid much attention to water pollution was about the time that rivers began catching on fire and burning because garbage was being dumped in them faster than they could carry it away. This was also about the time that PCB levels in Scandanavian fish and Minamata disease from mercury poisoning in Japan made it clear that there was such thing as downstream, and that some of civilization's by-products were so deadly that they could, indeed, come back to haunt us.

In the same way that DDT buildup in food fish caused ospreys to all but disappear from Japan, making it clear that there was such thing as pollution, PCB contamination in many areas in the United States, pollutant levels on the Atlantic seaboard may be so high as to cause widespread mortality in bottlenose dolphins. Our own Great Lakes are so polluted that biologists are regularly issuing suggestions that ingestion of whitefish may be harmful to human health. The Mississippi River is straddled by the sixty-mile-long "chemical corridor" at a point just before it empties into the Louisiana wetlands, and industrial pollution in the St. Lawrence seaway is so high that the waterway's population of Beluga whales legally qualifies as hazardous waste. With federal policy that sanctions and abets these kinds of travesties in a country as "civilized" as the United States, is it any wonder that other parts of the world's marine habitat and the oceans as a whole are under imminent threat? One problem contributing to the sorry state of the oceans is that, despite the right of nations to promulgate environmental policy within their own borders, no such policy is enforceable outside coastal 200-mile limits. It turns out that most of the Earth's surface is completely unregulated by any sort of management whatsoever, environmental or otherwise. With the exception of the pole areas (which are at least covered by some sort of international agreement), all of this area is within the Atlantic, Indian, and Pacific oceans. It is this international loophole that has allowed the Japanese and others to ply the Atlantic, Indian, and Pacific oceans. It is this international loophole that has allowed the Japanese and others to ply 30,000-40,000 miles of drift net each night in the North Pacific alone. In the space of ten years, the pelagic (open ocean) drift net fisheries went from being virtually nonexistent to the point where they are the largest fishing fleets in the world. Spinning out gossamer curtains of 20- to 50-mile long nets that catch and kill virtually everything in their path, the driftnet fleets are responsible for the deaths of tens of thousands of dolphins, porpoises, whales, seals, and other marine mammals each year, as well as hundreds of thousands of seabirds. A recent U.S. Commerce Department study indicated that half a dozen species of seabirds may be losing 3-6 percent of their total world population annually to driftnets. The northern fur seal is declining at a rate of 5.2 percent annually, and recent disappearances of young Pacific humpback whales in...
Excess of wealth and waste... has its foundations in the destruction of the environment.

The casualties of unregulated fishing practices

There must now be fewer dolphins in the world's oceans than at any time... in the course of human history: dolphins caught in a tuna-fishing boat's drift nets are among the casualties of unregulated fishing practices in the eastern Pacific. dolphins have created a dynamic that drives natural equilibria completely away. We are the race that consumes, the first species ever to learn how to prosper, however temporarily, by depleting those very systems that support it and sustain life. Clever moderns, who imagine themselves to have thrown off the process of natural selection, we fancy ourselves as something more than a part of the world we inhabit. It is our very sense of comfort that costs us more than we care to understand and that distracts us from the truth about our actions.

As long as the excesses of wealth and waste continue to furnish us with surrogate realities, we will continue to disfigure our planet and ignore the ways in which we nickel and dime our environment to death, robbing our children, our future, and the natural legacy that daily diminishes. The ecological toll taken by billions of beings operating as "selves," aided by the tools of modern technology and pursuing dreams that largely describe escape and isolation as their destined ends—one of our formulae for biological Armageddon.

We can rediscover and exercise our right to choose and save the rivers, the oceans, and the species within them from further harm, but only after we decide that it is important enough to do so. The perception as individuals that the most efficient means of creating national policy is to pay attention to how and why we spend our dollars is not too far from the mark. Perhaps the best way to qualify what is good for the oceans and, ultimately, our survival is to focus on a symbol of the ocean's health and viability.

It is possible, even likely, that, were there no need for corporations and their stockholders, con
tinued to decimate dolphin and porpoise populations. As species at the top of what is commonly referred to as the food chain, the health and abundance of dolphin populations establishes them as excellent indicators for the state of the greater marine habitat. No comfort can be found in their vanishing numbers.

During the summer of 1988, the eastern seaboard was the site of the greatest "natural" die-off of dolphins ever recorded in human history. Some 300 bottlenose dolphins washed ashore from New Jersey to Florida over the course of several months. Thousands more may have died at sea. It is possible that the coastal population may have been halved in the course of a single year. A research cruise and congressional hearings failed to establish a definite cause, but indications were that the dolphins' immune systems had been depressed from concentrations of PCBs, heavy metals, and other pollutants. One individual was found with a PCB level of over 6,000 parts per million. It would seem that the East Coast of the United States is rapidly becoming incapable of supporting its most highly evolved species. If these dolphins, which eat fish from the same waters plied by the coastal fishing fleets of the United States, cannot survive on such fare, then surely the prospect of relying on these waters as a source for food fishing employment must also be at risk.

Each year, tens of thousands of dolphins are killed as a direct result of tuna-fishing activities in the Eastern Tropical Pacific (ETP) and because of the widespread use of drift-nets in the Pacific and Indian oceans. The ETP tuna fishery on dolphins accounts for only about 5 percent of the world's annual tuna harvest and has to rank as the most destructive of all the major fishing industries in history. Herding dolphin schools with speedboats, helicopters, and explosives, the fishermen have refined commercial fishing to a point where slow death by drown

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