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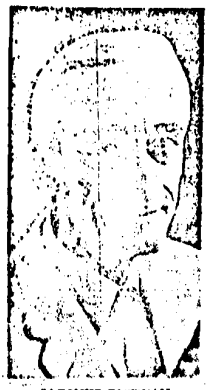
The Poisoned Sea: The Peril Gushes It —And Man Has No Answer



JACQUES COSTEAU

BY STAN BENJAMIN
Associated Press

Washington — Man is poisoning the sea, polluting seven-tenths of the world and slaughtering four-fifths of all living things.

By regarding the oceans as an inexhaustible source of food on the one hand, and an insatiable sink for his wastes on the other, he is threatening to turn the seas into biological deserts. Some scientists believe catastrophe is only a matter of time. "In a very few years we are going to have a most unpleasant awakening," says famed explorer Jacques Costeau, who estimates on the bais of his own undersea observations that ocean life has decreased by 40 percent in the last 20 years.

Other scientists say the dimensions of the danger are unknown.

"Most scientists in this field are very much concerned and we realize we don't know a damn thing about it," said Philip Butler, a leading marine biologist.

There is no way to support or disprove Costeau's estimate. No one measured the ocean life 20 years ago; no one is doing it now.

'Dead Right'

"We scientists," said ecologist George M. Woodwell of Brookhaven National Laboratory, "are just about the last to come across any real proof. But my guess is that Costeau is dead right."

How fast do man's poisons spread? How much damage will they do? How long can the sea meet man's ever increasing demand for food?

These are questions for which scientists have no answers, but they do know the poisons are spreading. The damage has already begun:

- Forty-nine persons died in Japan from eating fish poisoned with industrial mercury.
- An epidemic of infectious hepatitis was started by shellfish caught in sewage-contaminated New York waters.
- Fish-killing "red tide" organisms, believed to be triggered by pollution, have sickened people through contact or seafood.
- The buildup near industrialized areas of toxic substances, including cancer-inducing agents such as DDT, "has reached frightening proportions," according to B. W. Halstead, director of the World Life Research Institute.

Fishing Troubles

Pollution is only part of the problem. To meet the demand for fresh fish, the fisherman is ranging farther and farther from his home waters, casting a wider net and hauling in smaller catches.

The worldwide catch of fish and shellfish, after tripling in the last 20 years, declined for the first time in 1969. Donald Whittaker, economic analyst for the National Marine Fisheries Service, said the catch increased again in 1970, but only because fishermen went after new species.

"A great many fish have just about reached their limit," Whittaker said. "The haddock off our northeast coast have been overfished. Countries that fish that area are now abiding by a quota, but they really should stop entirely for a couple of years. The haddock are in danger of becoming extinct. We're not sure there are enough left to reproduce themselves."

Other species also are endangered.

Depletion Near?

"Yellowtail flounder off the northeast are right on the verge of being overfished," Whittaker said. "The countries have agreed on a quota. There is a quota on tuna in the eastern tropical Pacific Ocean. I wouldn't be surprised if we have quotas soon on cod and perch. Lobsters in the United States and Canada are just at their maximum catch."

"Previously," said Whittaker, "the fisheries were underutilized. Now we're on the verge of depleting the resource."

"Overfishing" tells only a fraction of the story. Contamination is starting to make eagerly-hunted fish unfit to be eaten.

The U.S. Food and Drug Administration closed shellfish beds in Brunswick Bays, Ga., and Port Lavaca Bay, Texas, last year because of mercury contamination from factories. It took imported swordfish off the U.S. market because of mercury.

FDA Ban

After hepatitis outbreaks, the FDA banned shellfishing in the ocean off Raritan Bay, where the New York area dumps its sewage sludge, and off the Delaware Bay, Philadelphia's sludge-dump.

The FDA did seize some Pacific Coast mackerel, dangerously high in DDT, but it let contaminated fish oils, fish livers and fish protein concentrate slip through its fingers.

Mercury Poisoning

The effects of overfishing were dramatically illustrated by the whaling industry, which long ago all but destroyed itself, along with the earth's largest mammals.

As for the problem of con-

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lumination," the dangers were clearly outlined in Japan when methyl mercury killed 49 persons and ruined the nervous systems of 100 more.

But can man ruin all the oceans of the earth?

Cousteau says flatly, "the oceans are dying" while society adopts "an ostrich policy."

Industrial chemicals, oil, raw sewage, pesticides and machinery's bad breath brought to earth by rainfall, already have killed or crippled the life of streams, rivers and lakes.

But the ocean?

'The Final Cesspool'

That's where the polluted rivers flow. The ocean, said Halstead, is "the final cesspool of most of man's activities."

The estuaries, where river meets sea, are heavily polluted. They are the spawning grounds of much marine life.

Butler has reported evidence that DDT killed shrimp in Texas estuaries, blocked the reproduction of speckled trout off the Texas coast, and may be reducing Dungeness crabs off California.

DDT, a chemical invented to kill insects on farmland, has been found in Arctic seals and Antarctic penguins.

U.S. chemical companies reportedly produce more than 100 million pounds of DDT per year. It is estimated to last, in nature, anywhere from 10 to 30 years. Much of it washes into the sea.

DDT and PCBs..

Other pesticides, such as dieldrin, endrin, heptachlor epoxide, and benzene hexachlorides, are similarly long-lasting. So are the industrial chemicals called PCBs (polychlorinated biphenyls) now found worldwide and ranked by some scientists as an ocean pollutant second only to DDT.

So similar are the two chemicals, in fact, that the Food and Drug Administration routinely tests fish only for DDT. If it finds DDT, the agency figures an equal amount of PCB must be present.

Monsanto Chemical Co., the only manufacturer of PCBs in the United States, refuses "for competitive reasons" to reveal how much is being produced.

Meanwhile, the poisoning of the sea continues.

Polluted Sludge

The United States dumped 49 million tons of its wastes into the sea in 1968, including at least 13 million tons of polluted sludge.

Such sludge has killed almost every living thing on the ocean floor in a 20-square-mile area off New York.

Scientists have found patches of dead plankton along 70 miles of the Atlantic.

Plankton are the microscopic plants and animals at the very foundation of the ocean's food chain. Higher forms of sea life feed on them. They also produce some 70 percent of the earth's oxygen.

Three Scottish scientists have reported that plankton samplings 30 feet deep over 22 years showed "a most dramatic decline . . . in the Atlantic as well as the North Sea."

They don't know what that means, or even whether it means anything.

What man knows is that he is poisoning the sea and its living things.

What he does not know is what his poisons do, to it or them. Or himself.

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