ZoBell presented paper at International Conference on Water Pollution Research in London on the pollution of the sea and its shores by oil.

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Oil from sunken tankers of World War II is still seeping to the ocean surface, says Claude E. ZoBell, Professor of Marine Microbiology at the University of California's Scripps Institution of Oceanography.

Oil from these rusting tankers contributes to what has become a serious international problem-- the pollution of the sea and its shores by oil, says ZoBell in a paper presented at an International Conference on Water Pollution Research in London recently.

ZoBell's study of the oil pollution of beaches and bays have been in progress for nearly 20 years. He reports that the greatest increases in oil pollution seem to be occurring in the North Sea area and along the eastern seaboard of the United States.

However, enough oil and tarry substances, most of it in this instance from natural sources, invades the beaches of southern California and the Gulf of Mexico and other places to become a nuisance, particularly to beach visitors and bathers.

Between 50,000 and 250,000 tons of oily wastes are annually discharged at sea by ships, ZoBell estimates. "Much more than this may come from natural oil materials derived largely from decomposing organic materials, however," he says.

"Since the wastes from ships are discharged in the limited areas of the world's shipping lanes, oil from ships often occurs in concentrations sufficiently high to be conspicuous, and sometimes harmful to sea birds and beaches when it drifts ashore."

When oil penetrates to the skin of water fowl, it displaces air in the feathers or down, thereby destroying natural insulation and buoyancy. In cold weather, many birds freeze. Some sink. Many are washed helplessly ashore to die of starvation or fall prey to predators.

Oil in the sea is moved about by both water and wind movements. Near the land such movements are often shoreward, so that much floating oil may be beached.

"Oil-oxidizing bacteria have been found to play a tremendously important part in freeing the sea of polluting oil," says ZoBell. More than 40 different species of oil-oxidizing bacteria have been found in marine materials. Carbon dioxide is the principal end product resulting from the bacterial oxidation of oil.

ZoBell's proposed solution to the oil pollution problem is "first, to take steps to do whatever can be done to minimize the amount of oil finding its way into the sea. Second, oil that is dumped or otherwise finds its way into the sea should be dispersed as finely as possible, thereby making it more susceptible to bacterial activity."

After the London conferences, which are being sponsored by the Water Pollution Control Federal and the National Institutes of Health, ZoBell is to participate in another conference in Milan, Italy. During his visit to Europe

he will make observations on oil pollution of beaches and bays there. Before returning to La Jolla, he will report at a meeting of the U. S. National Committee for Prevention of Pollution of the Seas by Oil in Washington, D.C.