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Contamination of Vietnam River Fish Laid to Defoliant

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WASHINGTON, April 5 — Two Harvard biochemists have found that a component of a defoliant chemical used by United States forces in South Vietnam has contaminated fish and shellfish in Vietnamese waters and they say it may pose longterm hazards for the human population.

Dr. Matthew Meselson, a professor of biochemistry, and Robert Baughman, a graduate student, reported that they had detected dioxin, a contaminant part of the herbicide known as 2,4,5-T, in a variety of fish and shrimp caught in South Vietnamese rivers and coastal waters. The rivers drain areas on which 45,000 tons of "agent orange," containing the herbicide, were sprayed between 1962 and 1970 to reduce forest and jungle growth that provided cover for Communist forces.

Dioxin is known to cause birth defects in animals and, in theory, may have the same effect on humans, but Dr. Meselson said in a telephone interview that it was not known what effect it has had or would have on people in South Vietnam.

"No massive problem has been seen there in public health but it either might have occurred on a very small scale or is yet to build up," he said.

The samples of marine life that the Harvard biochemists studied were collected in 1970. The researchers reported that a catfish had the highest amount of dioxin — 814 parts per trillion — which, they said, would be a lethal dose for some animals such as guinea pigs.

A report on the biochemists' research was presented on Monday to a meeting at the National Institute of Environmental Health in Chapel Hill, N. C., and made public here by the Center for the Study of Responsive Law, which is directed by Ralph Nader, the consumer advocate.

A spokesman for the Pentagon said that the Department of Defense would have no immediate comment on the dioxin report.

Dr. Meselson said that dioxin "a nasy poison that is 100 times more toxic than the deadliest nerve gas" and had additional troublesome qualities. These, he said, are that it remains stable in an environment and that either it seems to collect in the tissues or its effects do.

For at least four years, questions have been raised about the safety of using 2, 4, 5-I. Dioxin apparently is formed in the herbicide during the manufacturing process, but relatively little is known about the substance.

Because of the uncertainties over the use of 2, 4, 5-T, the science adviser to President Nixon, Dr. Lee A. DuBridge, restricted the use of "agent orange" in 1969 to South Vietnamese areas remote from the population. At hat time, Dr. DuBridge noted an unusually high incidence of fetal deformities in mice and rats.

The samples of marine life studied at Harvard were collected a year later along the Dong Nai and Saigon Rivers and on the coast of Can Gio, about 50 miles from Saigon.

The research was started by the herbicide assessment commission of the American Association for the Advancement of Science and was financially supported by that group, the Ford Foundation and the National Institute of Environmental eHalth Sciences.

Officials of the center that made the study public also sent a letter to William D. Ruckelshaus, Administrator of the Environmental Protection Agency, asking that he extend his partial ban on the domestic use of 2, 4, 5-T in view of the findings.