

DDT Persists in Southern California Ocean Sediments and Organisms Long After Industrial Source Stops

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ABSTRACT

In recent years, relatively large concentrations of DDT compounds have been found in a variety of organisms collected off Los Angeles and Orange Counties.

The major source of this contamination was the industrial-waste material generated during the manufacture of this pesticide and subsequently discharged to the marine environment by the County Sanitation Districts of Los Angeles County (SDLAC) via the Joint Water Pollution Control Plant (JWPCP) submarine outfalls off Whites Point, Palos Verdes Peninsula.

In 1970, the release of these wastes to the sewage collection system of CSDLAC was discontinued. Since then, Marine inputs of DDT via these outfalls have decreased considerably. However, during 1971—even though discharge into the collection system had stopped, approximately 20 metric tons of these wastes were released by the JWPCP outfalls, due to contaminated sediments remaining in the wastewater collection system.

This input constituted more than 99 percent of all the DDT compounds (total DDT) carried by southern California municipal wastewaters during 1971 to the coastal marine ecosystem. Since 1971 the marine inputs of DDT have decreased quickly—from 20 metric tons in 1971 to 2 metric tons this year.

It is natural to inquire how the marine ecosystem has responded to this fairly abrupt change in the input of DDT compounds.

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