

PCB, DDT, and Benzo(a)pyrene in Raw and Pan-fried White Croaker (*Genyonemus lineatus*)

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ABSTRACT

A major survey of southern California sportfishermen was conducted in 1978 by the California Department of Fish and Game (WINE 1979). Wine found that over one million angler trip hours per year were expended on fishing and one in three fish caught was white croaker (*Genyonemus lineatus*). A major portion of those fish was caught in waters of Santa Monica Bay where there has been considerable concern regarding the water quality and pollution.

Santa Monica Bay's water quality is influenced by many factors including two large wastewater outfalls (Hyperion and the Joint Water Pollution Control Plant [JWPCP]), a sludge outfall, discharge from power plants, and oil refinery, a harbor, surface run-off by rain and storms, aerial fallout, public use of beaches, and small boat activity (BASCOP 1980). Prior to 1971 the rate of DDT discharged out the JWPCP outfall was estimated to be 21.6 metric tons per year. Since 1971 the rate has been reduced to about 0.7 metric tons and has remained relatively constant (SMOKLER et al. 1979; EIS/EIR 19080). Although the discharge of DDT has been reduced, the sediments adjacent to the outfall still contain large deposits of this and other contaminants such as PCB and benzo(a)pyrene (BaP) and remain the major source of these contaminants to bottom feeding animals (GOSSETT et al. 1982a). In 1978 concentrations of total DDT and total PCBs were measured at 1 mg/dry kg and 2 mg/dry kg, respectively, in Santa Monica Bay sediments from the site where the white croaker for this study were collected (YOUNG et al. 1980).

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