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Relationships among organochlorines and lipid classes in two demersal fish species from southern California

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ABSTRACT

Although the potential influence of lipid reservoirs on bioaccumulation in fish is known, there is little information on how differences in lipid classes, such as triacylglycerol, may affect bioaccumulation. The objective of this study was to investigate the potential relationships between the organochlorines 1,1,1-trichloro-2,2-bis(pchlorophenyl) ethane (DDT) and polychlorinated biphenyls (PCB) and the amount and composition of lipids present in two species of fish. Organo-chlorines, total lipid, and major lipid classes were quantified from liver and muscle samples from California scorpionfish (*Scorpaena guttata*) and longfin sanddab (*Citharichthys xanhostigma*) collected near San Diego, California, in July 2000. Detection rates and concentrations of DDT and PCB were higher in liver tissues than in muscle tissues, and corresponded to higher concentrations of total lipid and triacylglycerol. However, the concentrations of the organochlorines were not correlated with the amount of lipid present.

Full Text

ftp://ftp.sccwrp.org/pub/download/DOCUMENTS/AnnualReports/2003_04AnnualReport/ar15-allen_pg172-178.pdf