

SCCWRP Annual Report 2010

Plastic ingestion by planktivorous fishes in the North Pacific Central Gyre

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ABSTRACT

A significant amount of marine debris has accumulated in the North Pacific Central Gyre (NPCG). The effects on larger marine organisms have been documented through cases of entanglement and ingestion; however, little is known about the effects on lower trophic level marine organisms. This study is the first to document ingestion and quantify the amount of plastic found in the gut of common planktivorous fish in the NPCG. From February 11 to 14, 2008, 11 neuston samples were collected by manta trawl in the NPCG. Plastic from each trawl and fish stomach was counted and weighed and categorized by type, size class and color. Approximately 35% of the fish studied had ingested plastic, averaging 2.1 pieces per fish. Additional studies are needed to determine the residence time of ingested plastics and their effects on fish health and the food chain implications.

Full Text

ftp://ftp.sccwrp.org/pub/download/DOCUMENTS/AnnualReports/2010AnnualReport/ar10_281_285.pdf