



1st World Seabird Conference

Seabirds: Linking the Global Oceans

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V3-7 We 1120-1140 Lecture Theatre

Holly Gray

Incidence, variety, and mass of plastics ingested by Laysan and Black-footed Albatrosses recovered as by-catch in the North Pacific Ocean

“Laysan (*Phoebastria immutabilis*) and Black-footed Albatrosses (*P. nigripes*) ingest plastic debris, as evidenced by plastic in the digestive contents of their chicks, however there is little documentation of ingested plastics carried in foraging adults. We quantified plastics among the digestive contents of 18 Laysan Albatrosses and 29 Black-footed Albatrosses collected as by-catch in the North Pacific Ocean. Ingested plastic was present in 30 of the 47 birds examined, with Laysan Albatrosses exhibiting a greater incidence of plastic ingestion (83.3% n=18) than Black-footed Albatrosses (51.7% n=29) ($X^2=4.8$, $df=1$, $P=0.03$). Of the varieties of ingested plastic recovered, plastic fragments contributed the greatest mean mass in both species. Between species, Laysan Albatross specimens contained a higher mean mass of plastic fragments, and Black-footed Albatross specimens contained a higher mean mass of plastic line. Though the overall mean mass of ingested plastic in both species ($0.46g \pm 1.45$) was lower than previously noted among albatross chicks, the high incidence of ingested plastic reported here suggests that longterm effects, e.g. absorption of contaminants from plastics, may be of concern throughout the population. Furthermore, signs of regurgitation, coupled with limited digestive contents, indicate further research is required to determine if specimens obtained through fisheries by-catch result in underestimates of plastic burdens.”

Gwendolyn Lattin; Charles Moore

V3-10 We 1220-1240 Lecture Theatre

Gwendolyn Lattin

Plastic ingestion by planktivorous fishes in the North Pacific Central Gyre

“Marine debris has accumulated in the North Pacific Central Gyre (NPCG). The effects of marine debris on larger marine organisms have been documented through reported cases of entanglement and ingestion; however, little is known about the effects of this debris on lower trophic level marine organisms. This study is the first of its kind to document ingestion and quantify the amount of plastic found in the gut of common planktivorous fish in the NPCG. 11 neuston samples were collected in February 2008 by manta trawl in the NPCG. Approximately 35% of the 670 fish studied were found to have ingested plastic, with an average of 2.1 pieces per fish. This study confirms that fish in the NPCG are ingesting plastics, additional studies are needed to determine the effects of mechanical damage or transfer of toxicants sorbed to the ingested plastics on fish health and the transmission of these impacts throughout the food web and to higher trophic level organisms such as sea birds.”

Christiana M. Boerger; Shelly L. Moore; Charles Moore