

SESSION: Seabirds and marine mammals**MARS Themes:**

Oceans and marine ecosystems under global change

Title:

South Atlantic seabirds can be used as bioindicators to monitor small buoyant plastics at sea

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Abstract:

Plastic ingested by seabirds is used as a tool to monitor temporal and spatial variation in marine plastic pollution. For seabirds to be a reliable proxy, we need to understand what types of plastics each species ingests, and how these compare with those found in their environment. We use brown skua *Catharacta antarctica* regurgitations, each containing the remains of a single seabird prey, to characterise plastics ingested in four seabird taxa breeding at Inaccessible Island in the South Atlantic Ocean, during 2018. We compare the plastics they ingest to marine plastics collected with a neuston net at 116 sampling stations within the South Atlantic and southwest Indian Ocean region during 2016–2019. Overall, plastic types, colours and polymer types were similar between ingested and marine plastics, but *Fregetta* storm petrels ingested more fibres and white-faced storm petrels more industrial pellets than other taxa. Great shearwaters ingested more flexible packaging items, indicative of their foraging ranges that extend into industrialized coastal areas. Storm petrels were better indicators of the size of plastics floating at sea than larger prions and shearwaters. Given this information, we conclude that as a seabird community, plastics ingested by petrels can be used to assess the composition, and to track long-term changes in floating micro- and mesoplastics in this region.

Format:

Flash presentation

Keywords: (add ; between keywords)

seabirds; plastic ingestion; South Atlantic Ocean; microplastics; bioindicators