

 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p><b>Ninth Meeting of the Population and Conservation Status Working Group</b> <i>Swakopmund, Namibia, 25 May 2026</i></p> <p><b>High frequency of plastic-derived contaminants (phthalate acid esters) in the preen gland of dead procellariiform seabirds from the Patagonian Sea</b></p> <p><b><i>Luciana Gallo, María Rosa Repetti, Melina Paola Michlig, Leandro L. Tamini, Leandro N. Chavez, Ruben F. Dellacasa, C. Karina Alvarez, Sergio A. Rodriguez Heredia, Ralph Eric Thijl Vanstreels, Patricia Pereira Serafini, Marcela M. Uhart</i></b></p>
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#### **SUMMARY**

Plastic additives such as phthalate acid esters (PAEs) are an emerging concern due their toxicity and potential impacts on marine fauna. However, the source and extent of PAEs exposure in seabirds remain poorly understood. Procellariiform seabirds frequently ingest plastics and may uptake leached PAEs. Lipophilic PAEs can be excreted via preening oil, providing a minimally invasive option for monitoring exposure. In this study, plasticizers dimethyl phthalate (DMP), dibutyl phthalate (DBP), and di-2-ethylhexyl phthalate (DEHP) were quantified in the preen gland of dead procellariiforms (n = 31) from the Patagonian Sea (36 to 54 degrees latitude S). Additionally, plastic items (>1 mm) in the stomach of these birds were evaluated as a possible source of PAEs. PAEs were quantifiable in 71 % of individuals, with median concentrations of 336.0, 256.0, and 33.5 ng/g for DEHP, DBP, and DMP, respectively. While PAEs occurrence frequencies were similar to previous reports, DEHP concentrations were notably higher. Plastics were found in 23 % of seabird stomachs; yet no relationship was detected with PAEs in preen gland, suggesting that stomach contents alone are not a reliable indicator of plastic exposure in these species. These findings support the use the preen gland as an effective matrix for assessing PAEs exposure in seabirds. Further research should identify alternative exposure routes (i.e. prey, seawater, plastics <1mm), metabolic pathways and sub-lethal effects of chronic exposure. Overall, this study confirms widespread PAE exposure in Patagonian Sea seabirds and underscores the need for global regulatory measures and consumer behavioral changes to reduce ocean pollution.

**Attachment:** Gallo, L. et al. (2026) High frequency of plastic-derived contaminants (phthalate acid esters) in the preen gland of dead procellariiform seabirds from the Patagonian Sea. *Marine Pollution Bulletin*, 222, 118723.

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