

# Plastic is mistakenly fed to fledgling short-tailed shearwaters (*Ardenna tenuirostris*)

The nest should be a place safe from plastic pollution, but up to 98% of birds in a recent study had been fed plastic by their parents.

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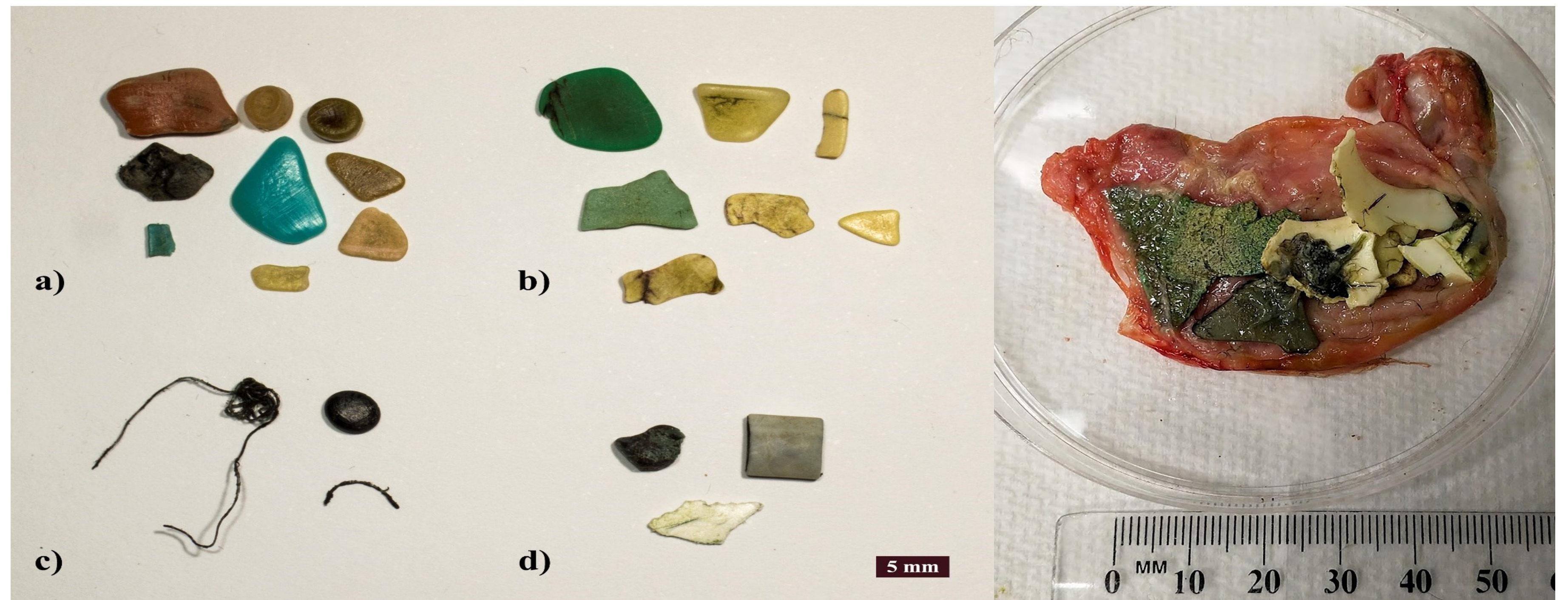
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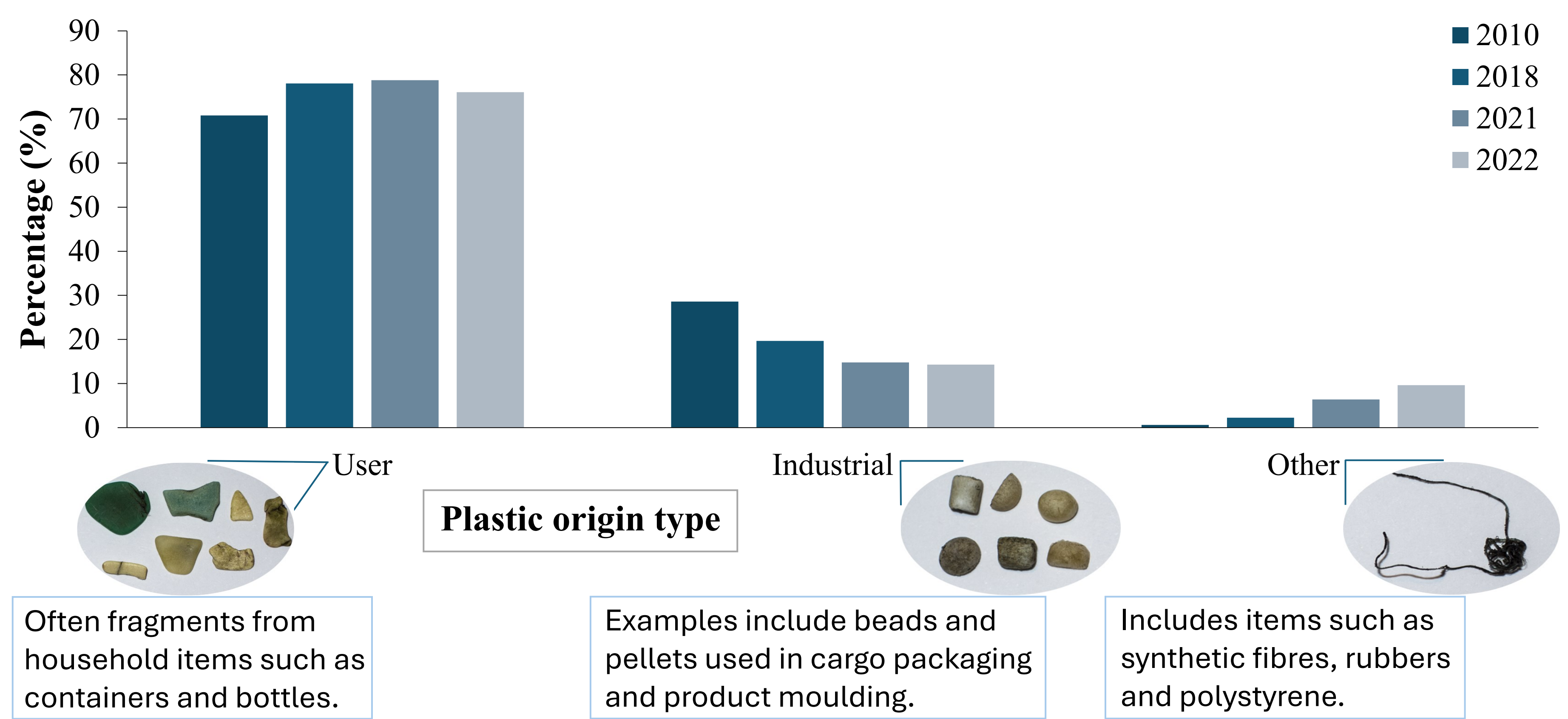


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## Shearwaters frequently mistake plastic for food

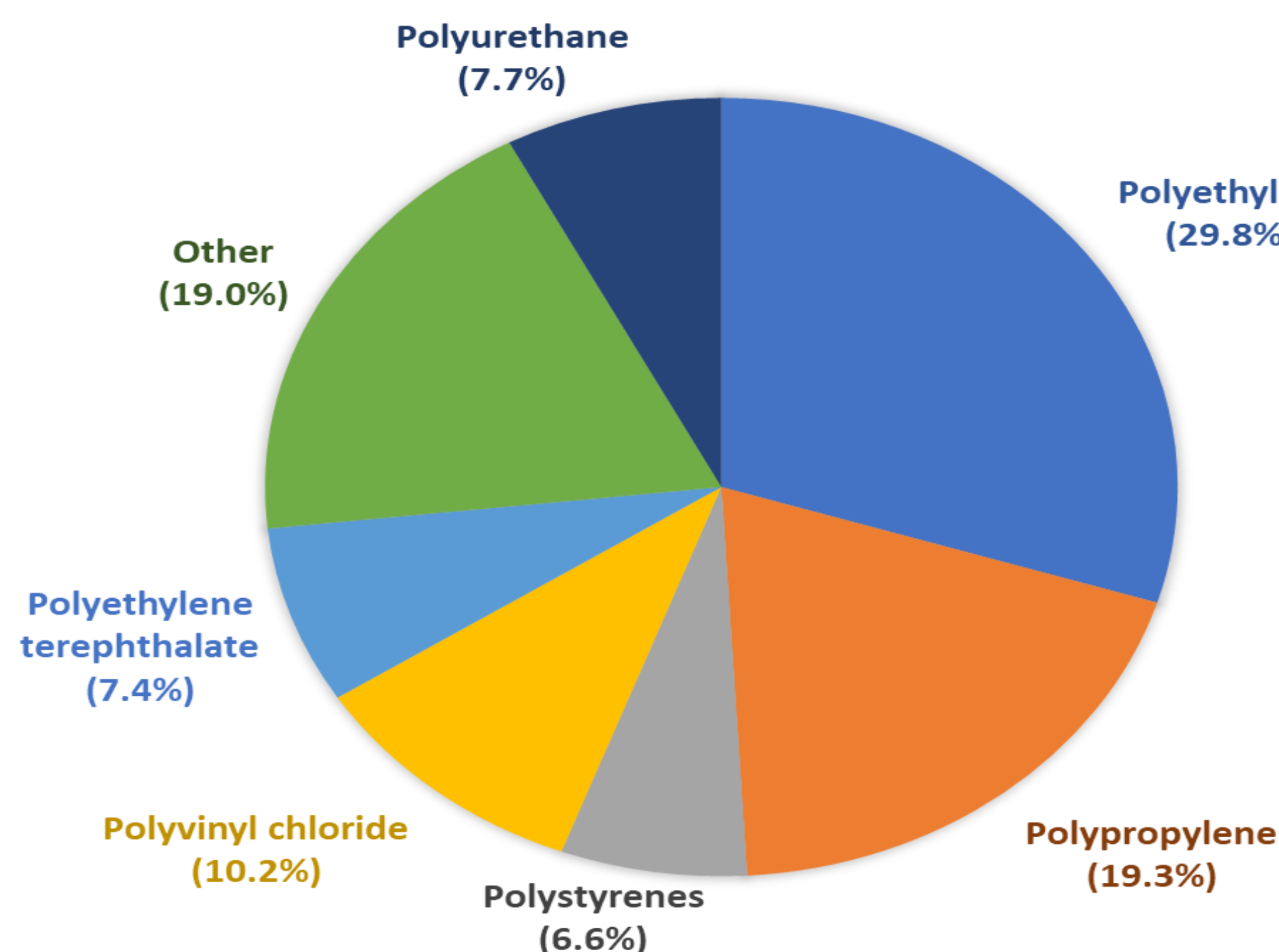
Deceased fledgling short-tailed shearwaters were collected from the beaches of Phillip Island, Victoria, Australia in 2018, 2021 and 2022 during the time of departure for their migration in April-May. Up to 98% had ingested plastic (max 22 pieces per bird) which was predominantly buoyant and light in colour<sup>1,6</sup>.



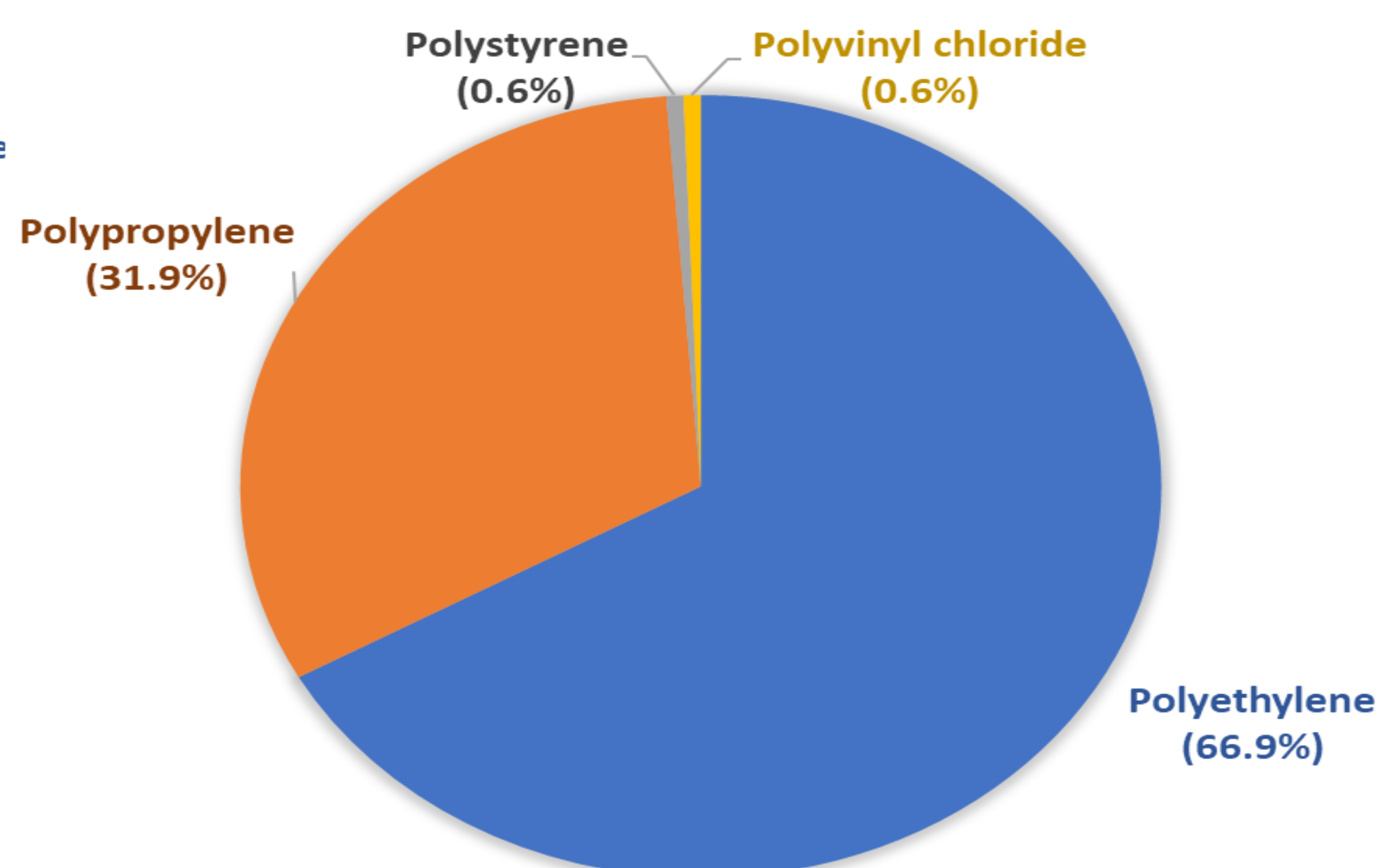
## Sentinels for monitoring marine plastic

Seabirds can be used to help monitor changes in plastic over time. There was a significant difference in the proportion of ingested plastic origin types between 2010<sup>2</sup> and 2022<sup>6</sup> with an overall rise in user and other plastics, and a decline in industrial pellets and beads. User plastic was the predominant type of particle ingested in all years analysed<sup>1,2,6</sup>.

## European plastic polymers by demand (2017)<sup>5</sup>



## Plastic types ingested by shearwaters (2018)<sup>1</sup>



## References:

- Colvin J, Dann P and Nugegoda D (2020) 'Plastic food for fledgling short-tailed shearwaters (*Ardenna tenuirostris*): A case study', in Bolan N, Kirkham MB, Halsband C, Nugegoda D and Ok YS (eds) *Particulate plastics in terrestrial and aquatic environments*, CRC Press, doi:10.1201/9781003053071-26, Boca Raton.
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- Currently unpublished data.

Not all plastic is equal when it comes to ingestion by short-tailed shearwaters. Using attenuated total reflection-Fourier transform infrared spectroscopy (ATR-FTIR) an overabundance of polyethylene and polypropylene was observed in the ingested plastics<sup>1</sup> compared to overall production by demand<sup>3,5</sup>.

