

Is that food? Plastic composition in the guts of the northern fulmar (*Fulmarus glacialis*)

By Idun Kjoberg, Vebjørn Kveberg Opsanger, Vegard Sellin, Nora Stampe, and Susanne Zazzera



Introduction

- North Atlantic and Pacific oceans
- Wide potential foraging range
- Mistakes plastics for food
- Don't regurgitate
- Monitor plastic pollution

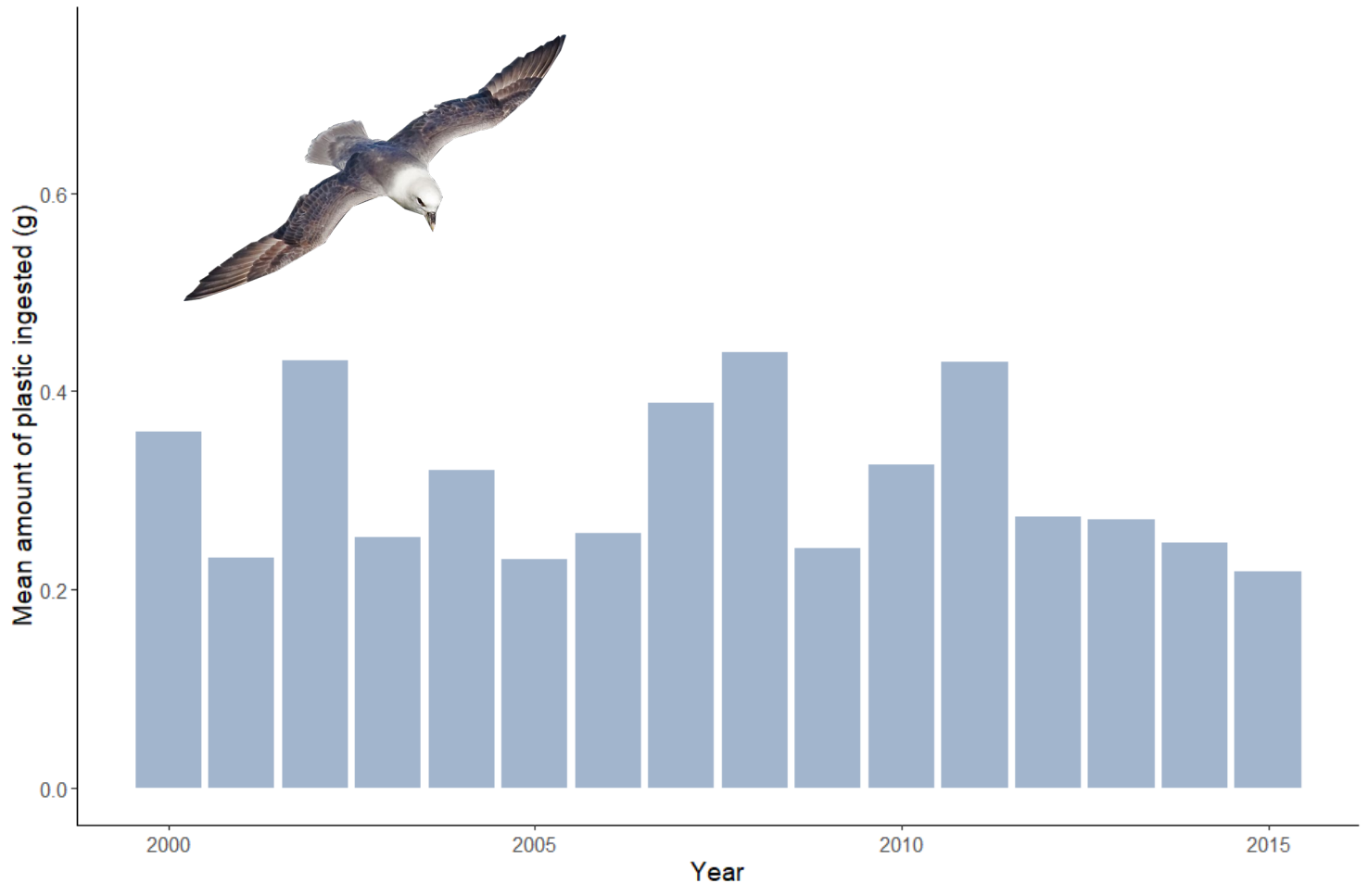


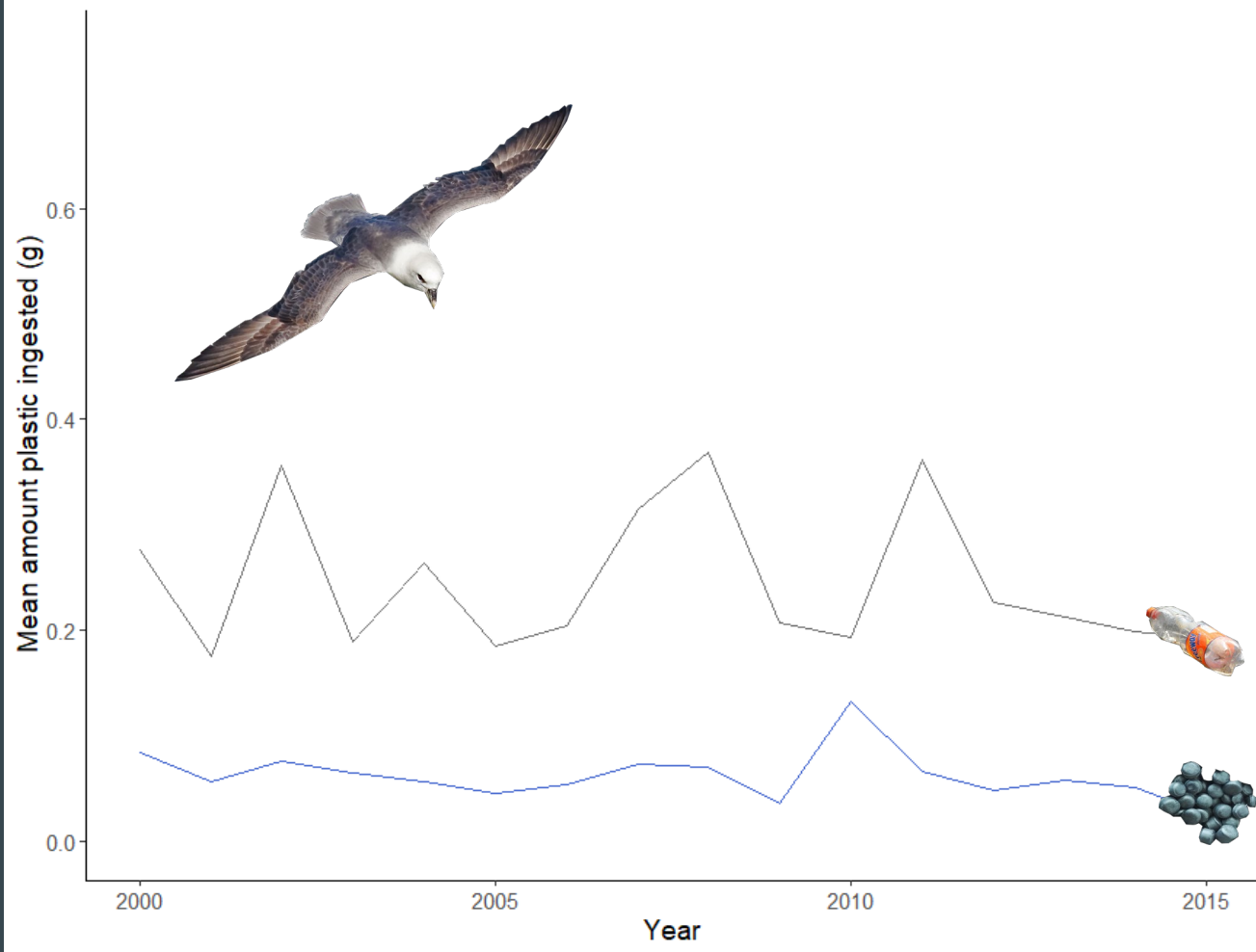
Nora Stampe, Svalbard

Methods

- OSPAR: mechanism by which 15 Governments and the EU cooperate to protect marine environment of North-East Atlantic
- Data: beached fulmars collected by volunteer during period 2000-2015
- along coastlines of Netherlands, Germany, UK, Belgium, Denmark, Norway







User plastics

Industrial plastics

Discussion and conclusion



- Higher proportion of user plastics
- Stable trend in mean amount over 2000-2015
- Is there a threshold for max amount of plastic?

- Need more research on effects of ingestion

Main sources

- Day, R. H., Wehle, D. H. S. and Coleman, F. (1985) 'Ingestion of plastic pollutants by marine birds', *Proceedings of the Workshop on the Fate and Impact of Marine Debris*, pp. 344–386.
- van Franeker, J. A. *et al.* (2011) 'Monitoring plastic ingestion by the northern fulmar *Fulmarus glacialis* in the North Sea', *ENVIRONMENTAL POLLUTION*, 159(10), pp. 2609–2615. doi: 10.1016/j.envpol.2011.06.008.
- van Franeker, J. A. and Law, K. L. (2015) 'Seabirds, gyres and global trends in plastic pollution', *Environmental Pollution*, 203, pp. 89–96. doi: <https://doi.org/10.1016/j.envpol.2015.02.034>.
- Thevenon, F., Carroll, C. and Sousa, J. (2015) 'Plastic debris in the ocean: the characterization of marine plastics and their environmental impacts, situation analysis report', *IUCN*. doi: 10.2305/iucn.ch.2014.03.en.
- *Quality Status Report 2010* (2010). London: OSPAR Commission.