Findings

The northern fulmar (*Fulmarus glacialis*) has its distribution in the northern part of the OSPAR area, including the greater North Sea. Fulmars forage exclusively at sea, capturing prey from the sea surface. They frequently ingest floating marine litter, including plastic objects presumably confusing them with food. Unlike most seabirds, fulmars do not regurgitate plastic particles but accumulate them. The content of plastic particles in their stomachs can therefore be used as an indicator for the abundance of litter encountered at sea. Ingested plastics may reduce food intake and the ability to process food, leading to a deteriorated body condition associated with increased mortality and reduced breeding success.

In all areas of the North Sea the Ecological Quality Objective (EcoQO) is not being met. Stomach contents of fulmars for the combined SE North Sea region indicate that the marine litter situation is stable (BE, DE, NL). Data for other North Sea regions indicate lightly increasing (though not significant) trends. Highest plastic abundance is seen in fulmars from the Channel (86%).

Quality Status Report Conclusion

Marine litter is a persistent problem that affects the entire marine environment and its ecological effects are not fully understood. The QSR conclusions are based upon the 2002-2006 data which highlighted that 94% of fulmars had at least one piece of plastic in their stomachs and on average 57% had greater than 0.1g of plastic in their stomach; well above the 10% target.

What has been done?

Sampling programmes of beached dead fulmars have been established in a number of locations around the North Sea. Most of these are conducted as a part of existing long-term Beached Bird Surveys. Collected birds are identified (age, sex, etc), dissected and their stomachs are opened for analysis. All litter items are sorted out and categorised, counted and weighed.
Implications/What happens next?

In order to meet the objective additional efforts are needed to stop litter entering the marine environment both from sea-based and land-based sources. Further refinements of the implementation of the EU Directive on Port Reception Facilities and MARPOL Annex V may be needed.

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Scottish Islands | 48% | 59% | 57%
East England | 59% | 77% | 76%
Channel | 61% | 86% | 86%
SE North Sea | 57% | 57% | 60%
Skagerrak area | 49% | 53% | 55%
Faroe Islands | 43% | 46% | 40%

A longer monitoring series for the Netherlands shows a sharp increase of marine plastic litter from the early 1980s to the mid-1990s, followed by a similar sharp decline, but stabilisation and lack of significant improvement after the turn of the century. The composition of ingested plastic has changed significantly since the 1980s with a strongly reduced proportion of industrial plastic and increased proportion of consumer waste.

Does it work?

Over the last decade no significant decrease has been detected in plastic particles in fulmars stomachs. This is not in line with the OSPAR strategy “to substantially reduce marine litter in the OSPAR maritime area to levels where properties and quantities do not cause harm to the marine environment”. This does not mean that existing waste and maritime policy have been without effect, considering the increase in shipping and the use of plastics in the last decade. Recognising this lack of improvement OSPAR has adopted a Regional Action Plan on marine litter to take actions to reduce marine litter and highlight the problems to other competent authorities.

Sources of data and information:
- OSPAR sources
  - OSPAR QSR 2010
- Other sources