

CEMP Appendix BE3 – Plastic particles in fulmar stomachs (Revised 2017)



<b>Monitoring of plastic particles in stomachs of seabirds*</b>			
<b>Monitoring Purpose</b>	<i>State/Impact</i>	<b>Applicable MSFD GES Criteria</b>	10.1.2 Trends in the amount of litter in the water column (including floating at the surface) and deposited on the seafloor, including analysis of its composition, spatial distribution and, where possible, source  10.2.1 Trends in the amount and composition of litter ingested by marine animals (e.g. stomach analysis).
<b>Monitoring Guidelines / Monitoring Method in place</b>	Guidelines for Monitoring and Assessment of plastic particles in stomachs of Fulmars in the North Sea area (OSPAR Agreement 2015-03)	<b>Assessment Guidelines</b>	Guidelines for Monitoring and Assessment of plastic particles in stomachs of Fulmars in the North Sea area (OSPAR Agreement 2015-03)
<b>Quality Assurance Procedures in place</b>	<b>Other</b> ; methods developed under guidance of ICES and OSPAR and published in peer reviewed scientific literature (Guidelines for Monitoring and Assessment of plastic particles in stomachs of Fulmars in the North Sea area: Chapter 2.5) (OSPAR Agreement 2015-03)	<b>Assessment tools available</b>	Yes. Available in peer reviewed literature and Alterra / IMARES report series 2002 to 2014 (see references for Van Franeker in Chpt. 5 in: Guidelines for Monitoring and Assessment of plastic particles in stomachs of Fulmars in the North Sea area’).
<b>Quality Control</b>	Other QC: Control of general methodology as above; ongoing data quality by OSPAR-ICG-ML and OSPAR secretariat.	<b>Data Custodian</b>	OSPAR
<b>Element Monitored</b>	Other physical disturbance -Marine Litter	<b>Data Depository</b>	OSPAR Fulmar database

<b>Parameter Measured</b>	Quantity and type of litter in animal stomachs (Pressures- Pressure output)		<b>Indicator Metric</b>	Trend in mass of plastics in fulmar stomachs (gram, accurate to 4 <sup>th</sup> decimal) - with a long-term goal of less than 10 % of the birds having more than 0,1 g. plastic particles in the stomach.	
<b>Temporal scope</b>	Start date: 1979 (Netherlands); 2002 other North Sea End date: 9999 Monitoring frequency: Continually		<b>Data submission Frequency/ deadline and link to reporting format</b>	Annually, 31 Dec with one year delay to date of samples.	
<b>Spatial Scope</b>	<i>EEZ</i>	<i>Monitoring currently implemented in 5 subregions of the North Sea (Scottish Islands, East England, Channel Area, SE North Sea (=Belgium+Netherlands+Germany) and Skagerrak area (Denmark, Norway and optional Sweden), with incidental records in other waters in Greater North Sea and Celtic Seas (eg Scottish mainland, Ireland) and ad hoc studies in arctic waters (Faeroe, Iceland, Svalbard) with potential for full implementation.</i>			
<b>Nature of Data</b>	<i>Unprocessed data</i>		<b>Aggregation of Data</b>	<i>Other (see spatial scope)</i>	
<b>OSPAR Regions</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>Contracting Parties monitoring</b>	N/A	UK, FR, BE, NL, DE, DK, NO	N/A	N/A	N/A
<b>Contracting parties supplying data</b>		NL, DE, DK, UK, NO, FR			
<b>Spatial Resolution (proportion)</b>		100%			
<b>Spatial Resolution (Density)</b>		39			
<b>Contracting Parties with an “opt out”</b>		SE			