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Litter microparticle abundance/volume

Monitoring programme: Litter

Programme topic: Litter

## SUB-PROGRAMME: MICROLITTER PARTICLE ABUNDANCE AND CHARACTERISTICS

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### REGIONAL COORDINATION

The monitoring of this sub-programme is: **not coordinated**.

Currently monitoring is carried out at national level.

### PURPOSE OF MONITORING (Q4K)

Follow up of progress towards:

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**Baltic Sea Action Plan (BSAP)**

Segments

Hazardous substances

Maritime activities

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	Ecological objectives	Concentrations of hazardous substances close to natural levels
<b>Marine strategy framework directive (MSFD)</b>	Descriptors	D10 Litter
	Criteria ( <a href="#">Q5a</a> )	10.1 Characteristics of litter in the marine and coastal environment 10.2 Impacts of litter on marine life
	Features ( <a href="#">Q5c</a> )	Other features: A description of any other features or characteristics typical of or specific to the marine region or subregion.
<b>Other relevant legislation (<a href="#">Q8a</a>)</b>	Currently no relevant legislation	

### Assessment of: ([Q4k](#))

State/Impacts	<b>X</b>	trends, state classification
Pressures		
Human activities causing the pressures		
Effectiveness of measures		

### Scale of data aggregation for assessments: ([Q10a](#))

HELCOM assessment unit Level 1: Baltic Sea	
HELCOM assessment unit Level 2: Subbasin	
HELCOM assessment unit Level 3: Subbasins with coastal and offshore division	
HELCOM assessment unit Level 4: Subbasins with coastal WFD division	
Other: National	<b>X</b>

## MONITORING CONCEPTS TABLE

Coordination	Elements <a href="#">Q9a</a> ( <a href="#">Q5c</a> )	Parameter <a href="#">Q9a</a> ( <a href="#">Q5c</a> )	Method <a href="#">Q9c</a> , <a href="#">Q9d</a>	QA/QC <a href="#">Q9e</a> , <a href="#">Q9f</a>	Frequency <a href="#">Q9h</a> , <a href="#">Q9i</a>	Spatial resolution <a href="#">Q9g</a> , <a href="#">Q9j</a>	Link to HELCOM core indicators	Link to MSFD GES characteristics <a href="#">Q5b</a>	Spatial scope <a href="#">Q4i</a>	Monitoring started <a href="#">Q4h</a>	CPs monitoring
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National	Microlitter in water surface	Quantity and type of microparticles	Manta trawl	National	Yearly	25 stations	-	10.1.3 Trends in the amount, distribution and, where possible, composition of micro-particles (in particular micro-plastics...	EEZ	2014	FI
National	Microlitter in water and in sediments	Quantity and type of microparticles	Plankton nets and Nemisto corer/Van Veen grab	National	Yearly	6 stations	-	10.1.3	EEZ	2015	PL
National	Microlitter in sand	Quantity and type of microparticles	Sieving	National	Seasonal	-	-	10.1.3	EEZ	2014	LT

## Brief description of monitoring

Detailed information on monitoring frequency and spatial resolution has not yet been collected from all countries but will be added.

<b>Element / parameter</b>	<b>Microlitter on water surface</b>
<b>Method</b>	Microlitter on water surface/Quantity and type of microparticles: Manta trawl survey
<b>QA/QC</b>	National
<b>Frequency</b>	Yearly
<b>Spatial Scope</b>	EEZ EE: pilot study started in 2014, continued in 2015; four areas in the GoF.
<b>Spatial resolution</b>	25 stations

<b>Element / parameter</b>	<b>Microlitter in water and in sediments</b>
<b>Method</b>	Microlitter in water will be monitored by sampling in the water column with plankton nets and bottom sediments sampling with Nemisto corer or van Veen grab. The amount and the composition (as far as possible) of the microparticles will be analyzed.
<b>QA/QC</b>	National
<b>Frequency</b>	Yearly
<b>Spatial Scope</b>	EEZ
<b>Spatial resolution</b>	6 stations

<b>Element / parameter</b>	<b>Microlitter in sand</b>
<b>Method</b>	Sieving 5 cm of surface sand of 50cmx50cm quadrat with 2 mm sieve
<b>QA/QC</b>	National
<b>Frequency</b>	Seasonally
<b>Spatial Scope</b>	EEZ
<b>Spatial resolution</b>	-

## ASSESSMENT REQUIREMENTS

### Monitoring requirements and gaps

Monitoring is to be carried out to fulfill assessment requirements of HELCOM ecological objectives that are specified through HELCOM core indicators. The requirements on monitoring can include number of stations, the sampling frequency and replication.

<b>Monitoring requirements</b>	The study of the presence of microparticles in different compartments is being subject of study under several national and regional projects in the HELCOM area. The assessment of monitoring requirements is considered from two perspectives: 1. close to the hot spots (i.a. wastewater treatment facilities) 2. in the open sea (concentration in zooplankton, mussels and fish).
<b>Gaps</b>	National monitoring is ongoing in several Contracting Parties, although there is no coordinated monitoring programme in force.

### Adequacy for assessment of GES (Q5d)

Monitoring should provide adequate data and information to enable the periodic assessment of environmental status, and distance from and progress towards GES as required by MSFD under Article 9 and 11.

<b>Adequate data?</b>	No
<b>Established methods for assessment?</b>	No
<b>Adequate understanding of GES?</b>	No
<b>Adequate capacity to perform assessments?</b>	No

### Assessment of natural variability (Q5e)

Expert opinion.

### DATA PROVIDERS AND ACCESS

<b>Data access point</b>	National databases
<b>Data type (Q10c)</b>	Processed data sets
<b>Data availability (Q10c)</b>	=
<b>Data access (Q10c)</b>	-
<b>INSPIRE standard (Q10c)</b>	
<b>When will data become available? (Q10c)</b>	-
<b>Data update frequency (Q10c)</b>	-
<b>Describe how the data and information from the programme will be made accessible to the EC/EEA</b>	
<b>Contact points in the Contracting parties</b>	Contact point to national monitoring programmes will be added
<b>Has the data been used in HELCOM assessments?</b>	No

## REFERENCES

Guidance on Monitoring of Marine Litter in European Seas. JRC, 2013

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