### **OSPAR Region Arctic Waters - Iceland**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 3 sites, 25 surveys (for MSFD TV assessment: 8 sites, 37 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

Assessment method: CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter

and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 9454 items collected Medians of survey sites 300 Median total count: 252 items/100 m 250 $\equiv$ 8 200 items/ 150 MSFD threshold value assessment 100 Litter 50 Assessment value: 116 items/100 m Λ A reduction of 83% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. MSFD-country subregion median total count

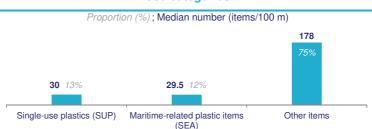
### Litter composition

OSPAR area median total count

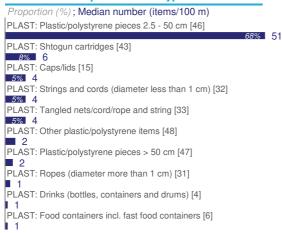
### **Material composition**

### Proportion (%); Median values (items/100 m) Artificial Polym. Material Rubber Cloth/textile Paper/cardboard Processed/worked wood 0 Metal 0 Glass/Ceramics Undefined 0

### **Use categories**



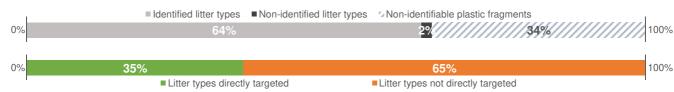
### Top 10 of litter types



### Litter types targeted by RAP measures

	Medians
Plastic bags	0 item/100 m
39 items collected	
Cigarette filters	0 item/100 m
8 items collected	
Cotton bud sticks	0 item/100 m
141 items collected	
Hunting cartridges	6 items/100 m
228 items collected	o items/100 m
Balloons incl. plastic valves, ribbons, strings etc.	0.11 /4.00
3 items collected	0 item/100 m

### Assessment of survey list adequacy and measures coverage



### **OSPAR Region Arctic Waters - Iceland**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/) Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 2 sites, 29 surveys

Calculation tools: LitteR package of R and Excel

These trends are provided for information only due to a limited number of site.

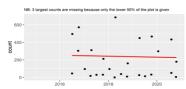
Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count

### Marine subregion level



2015-2020: No trend

Slope: -6 items/100 m per year p-value: 0.257

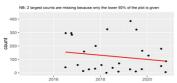
### Trends over 2015-2020

- Significant decrease
- Significant increase
- No trend

Site level

### Trends for categories of interest

### **Artificial polymer materials (plastics)**

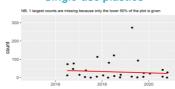


2015-2020: No trend

Slope: -16 items/100 m per year

p-value: 0.164

### Single-use plastics

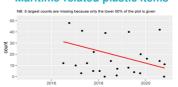


2015-2020: No trend

Slope: -4 items/100 m per vear

p-value: 0.181

### Maritime-related plastic items



2015-2020: No trend

Slope: -5 items/100 m per year

p-value: 0.059

### Trends for litter types targeted by RAP measures



2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.275



2015-2020: No trend

Slope: -1 item/100 m per year

p-value: 0.174

### incl. plastic valves, ribbons **Balloons**



2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.500

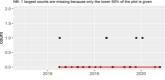
### **Cotton bud sticks**



2015-2020: No trend

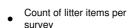
Slope: -1 item/100 m per year p-value: 0.114

### **Cigarette filters**



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.541



Theil-Sen trend line

### Key message

Beach litter is abundant on survey sites in the subregion Arctic Waters - Iceland, with a median total count of 252 items/100 m.

Plastic material is predominant, representing 98% of the beach litter items recorded, with a median of 172 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 30 items/100 m (13%) and 29.5 item/100 m (12%) respectively.

Plastic / polystyrene pieces (51 items/100 m; 68%) and hunting cartridges (6 items/100 m; 8%) are abundant litter types.

At least 35% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 2% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded.

### **OSPAR Region Bay of Biscay and Iberian Coast - France**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 14 sites, 125 surveys (for MSFD TV assessment: 22 sites, 152 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

Assessment method: CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter

and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



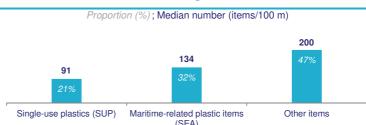
### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 92758 items collected Medians of survey sites 500 Median total count: 467 items/100 m 400 MSFD threshold value assessment Litter 100 Assessed abundance: 480 items/100 m 0 A reduction of 96% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### Litter composition

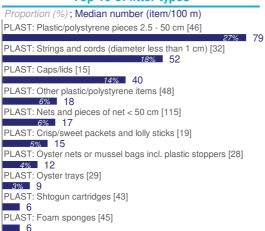
### **Material composition**

### Proportion (%); Median values (items/100 m) Artificial Polym. Material 2 Rubber 2 Cloth/textile Paper/cardboard Processed/worked wood 9 Metal 4 Glass/Ceramics 8 Undefined 1

### **Use categories**



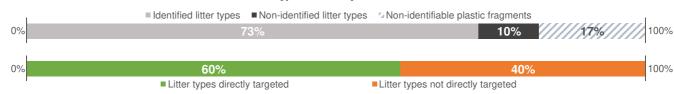
### Top 10 of litter types



### Litter types targeted by RAP measures

= tito: typoo ta: gottoa a	,
	Medians
Plastic bags	0 item/100 m
568 items collected	U ILEITI/ 100 III
Cigarette filters	2 items/100 m
1989 items collected	2 1(cm3/100 m
Cotton bud sticks	4 items/100 m
2637 items collected	
Hunting cartridges	6 items/100 m
1296 items collected	
Balloons incl. plastic valves,	
nobono, oringo oto.	0 item/100 m
117 items collected	

### Assessment of survey list adequacy and measures coverage



### **OSPAR Region Bay of Biscay and Iberian Coast - France**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting



### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 1 site, 23 surveys

Calculation tools: LitteR package of R and Excel

These trends are provided for information only due to a limited number of site.

Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

### Marine subregion level

2015-2020: Significant decrease

Slope: -422 items/100 m per year p-value: 0.005

### Site level



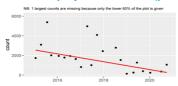
Trends over 2015-2020

Significant decrease

 Significant increase No trend

### Trends per category of interest (mesoplastic fragments excluded)

### **Artificial polymer materials (plastics)**

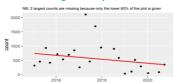


2015-2020: Significant decrease

Slope: -401 items/100 m per year

p-value: 0.004

### Single-use plastics

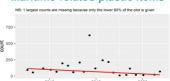


2015-2020: No trend

Slope: -69 items/100 m per year

p-value: 0.103

### Maritime-related plastic items



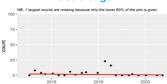
2015-2020: Significant decrease

Slope: -17 items/100 m per year

p-value: 0.045

### Trends per litter type of interest

### **Plastic bags**



2015-2020: No trend

Slope: -1 item/100 m per year

p-value: 0.079

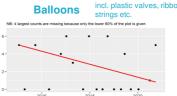


2015-2020: No trend

Slope: -1 item/100 m per year

p-value: 0.050

### **Balloons**

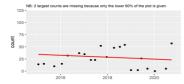


2015-2020: No trend

Slope: -1 item/100 m per year

p-value: 0.056

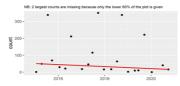
### Cotton bud sticks



2015-2020: No trend

Slope: -2 items/100 m per year p-value: 0.317

### **Cigarette filters**



2015-2020: No trend

Slope: -6 items/100 m per year

p-value: 0.093

### Count of litter items per survev

Theil-Sen trend line

### Key message

Beach litter is abundant on survey sites in the subregion Bay of Biscay and Iberian Coast - France, with a median total count of 467 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 91 items/100 m (21%) and 134 items/100 m (32%) respectively.

Plastic / polystyrene pieces (79 items/100 m; 27%), strings and cords (52 items/100 m; 18%) and caps and lids (40 items/100 m; 14%) are abundant litter types.

At least 60% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 10% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded.

Plastic material is predominant, representing 94% of the beach litter items recorded, with a median of 396 items/100 m.

### OSPAR Region Bay of Biscay and Iberian Coast - Portugal

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 14 sites, 151 surveys (for MSFD TV assessment: 15 sites, 159 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

Assessment method: CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter

and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



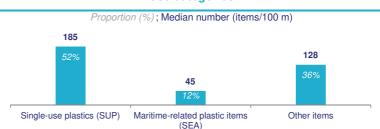
### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 76417 items collected Medians of survey sites 500 Median total count: 403 items/100 m 400 100 ritems/100 r 300 200 MSFD threshold value assessment Litter 100 Assessed abundance: 368 items/100 m 0 A reduction of 95% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### Litter composition

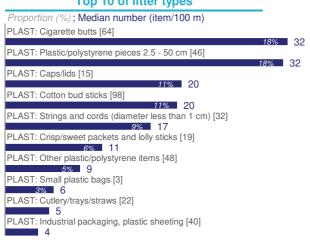
### **Material composition**

### Proportion (%); Median values (items/100 m) Artificial Polym. Material Rubber 2 Cloth/textile Paper/cardboard Processed/worked wood 2 4 Metal 1 Glass/Ceramics Undefined 0

### **Use categories**



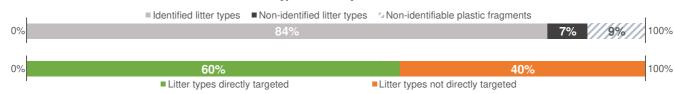
Top 10 of litter types



### Litter types targeted by RAP measures

Entroi typoo tangotoa s	y in a moderate
	Medians
Plastic bags	3 items/100 m
1597 items collected	3 Items/100 m
Cigarette filters	32 items/100 m
15327 items collected	02 1(CIII3/ 100 III
Cotton bud sticks	20 items/100 m
5653 items collected	
Hereatic is a control of the con-	
Hunting cartridges	1 item/100 m
315 items collected	
Balloons incl. plastic valves,	
Tibbotio, dalligo dio.	0 item/100 m
136 items collected	

### Assessment of survey list adequacy and measures coverage



### OSPAR Region Bay of Biscay and Iberian Coast - Portugal

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting



### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 9 sites, 208 surveys Calculation tools: LitteR package of R and Excel Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

### Marine subregion level

### All the second second

2015-2020: No trend

Slope: 2 items/100 m per year p-value: 0.483

### Site level

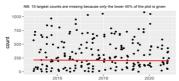


Trends over 2015-2020

- O Significant decrease
- Significant increase
- No trend

### Trends per category of interest (mesoplastic fragments excluded)

### **Artificial polymer materials (plastics)**

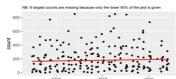


2015-2020: No trend

Slope: -3 items/100 m per year

p-value: 0.552

### Single-use plastics

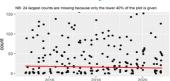


2015-2020: No trend

Slope: 5 items/100 m per year

p-value: 0.050

### Maritime-related plastic items



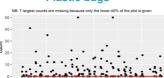
2015-2020: No trend

Slope: -1 item/100 m per year

p-value: 0.305

### Trends per litter type of interest

### **Plastic bags**

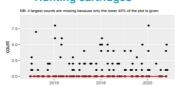


2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.918

### **Hunting cartridges**



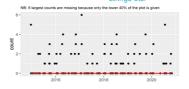
2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.791

### **Balloons**

incl. plastic valves, ribbons

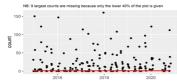


2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.624

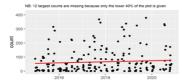
### **Cotton bud sticks**



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.686

### **Cigarette filters**



2015-2020: Significant increase

### Slope: 4 items/100 m per year p-value: 0.003

### Count of litter items per survev

Theil-Sen trend line

### Key message

Beach litter is abundant on survey sites in the subregion Bay of Biscay and Iberian Coast - Portugal, with a median total count of 403 items/100 m. Plastic material is predominant, representing 96% of the beach litter items recorded, with a median of 389 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 185 items/100 m (52%) and 45 items/100 m (12%) respectively.

Cigarette filters (32 items/100 m; 18%) and plastic / polystyrene pieces (32 items/100 m; 18%) are abundant litter types.

At least 60% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 7% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded.

### **OSPAR Region Bay of Biscay and Iberian Coast - Spain**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 12 sites, 129 surveys (for MSFD TV assessment: 12 sites, 129 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

<u>Assessment method:</u> CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



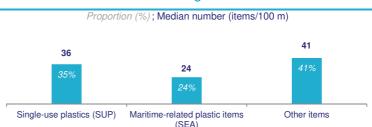
### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 27982 items collected Medians of survey sites 300 Median total count: 131 items/100 m 250 items/100 200 150 100 MSFD threshold value assessment Litter 50 Assessed abundance: 134 items/100 m 0 A reduction of 85% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### **Litter composition**

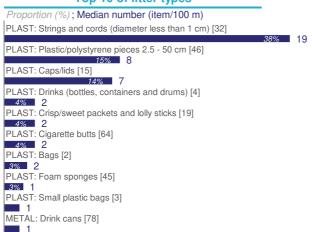
### **Material composition**

# Proportion (%); Median values (items/100 m) Artificial Polym. Material Rubber Cloth/textile Paper/cardboard Processed/worked wood Metal Glass/Ceramics Undefined 0

### **Use categories**



### Top 10 of litter types



### Litter types targeted by RAP measures

	,
	Medians
Plastic bags	2 items/100 m
439 items collected	2 1(61115/100 111
Cigarette filters	2 items/100 m
1783 items collected	2 Home, 100 m
Cotton bud sticks	0 item/100 m
1796 items collected	
Liveting contridance	
Hunting cartridges	0 item/100 m
72 items collected	
Balloons incl. plastic valves,	
40 items collected	0 item/100 m
40 Items Conected	

### Assessment of survey list adequacy and measures coverage



### OSPAR Region Bay of Biscay and Iberian Coast - Spain

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting



### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 12 sites, 273 surveys Calculation tools: LitteR package of R and Excel Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

### Marine subregion level

### Franciska John S

### 2015-2020: Significant decrease

Slope: -49 items/100 m per year p-value: 0.000

### Site level

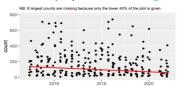


### Trends over 2015-2020

- O Significant decrease
- Significant increase
- No trend

### Trends per category of interest (mesoplastic fragments excluded)

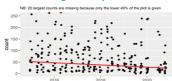
### **Artificial polymer materials (plastics)**



### 2015-2020: Significant decrease

Slope: -35 items/100 m per year p-value: 0.000

### Single-use plastics

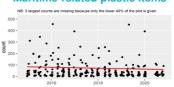


### 2015-2020: Significant decrease

Slope: -5 items/100 m per year

p-value: 0.000

### Maritime-related plastic items



### 2015-2020: Significant decrease

Slope: -4 items/100 m per year

p-value: 0.001

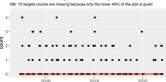
### Trends per litter type of interest

## **Plastic bags**

### 2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.500

### **Hunting cartridges**



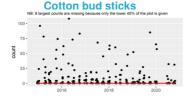
### 2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.009



### 2015-2020: No trend

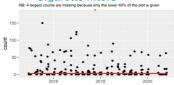
Slope: 0 item/100 m per year p-value: 0.031



### 2015-2020: No trend

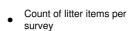
Slope: 0 item/100 m per year p-value: 0.121

### **Cigarette filters**



### 2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.323



Theil-Sen trend line

### Key message

SUP and SEA use categories appear to contribute to the pollution with medians of 36 items/100 m (35%) and 24 items/100 m (24%) respectively.

Strings and cords (19 items/100 m; 38%), plastic / polystyrene pieces (8 items/100 m; 15%) and caps and lids (7 items/100 m; 14%) are abundant litter types.

At least 63% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

10% of the litter items are non-identifiable plastic fragments, which cannot be used for the identification of sources of pollution.

Beach litter is abundant on survey sites in the subregion Bay of Biscay and Iberian Coast - Spain, with a median total count of 131 items/100 m. Plastic material is predominant, representing 92% of the beach litter items recorded, with a median of 111 items/100 m.

Only 6% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded.

### **OSPAR Region Celtic Seas - France**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 8 sites, 85 surveys (for MSFD TV assessment: 13 sites, 102 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

Assessment method: CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter

and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



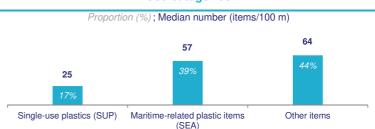
### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** Medians of survey sites 29377 items collected 300 Median total count: 204 items/100 m III: Celtic Seas 250 Litter items/100 200 150 100 MSFD threshold value assessment 50 Assessed abundance: 227 items/100 m 0 A reduction of 91% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### Litter composition

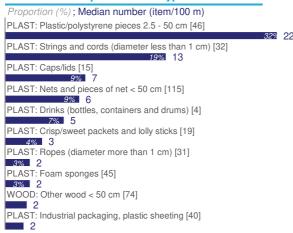
### **Material composition**

### Proportion (%); Median values (items/100 m) Artificial Polym. Material Rubber 2 Cloth/textile Paper/cardboard Processed/worked wood 4 Metal 2 Glass/Ceramics 2 Undefined 0

### **Use categories**



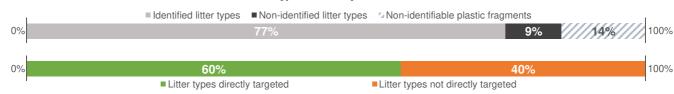
### Top 10 of litter types



### Litter types targeted by RAP measures

71	9	*
		Medians
Plastic bags		0 item/100 m
149 items collected		O ILEITI/ TOO TIT
Cigarette filters		0 item/100 m
127 items collected		0 1101111 100 111
Cotton bud sticks		0 item/100 m
68 items collected		
Hunting cartridges		
246 items collected		1 item/100 m
246 items conected		
Balloons incl. plastic valves,		- 11 11-2
ribbons, strings etc.  18 items collected		0 item/100 m

### Assessment of survey list adequacy and measures coverage



### **OSPAR Region Celtic Seas - France**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting



### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 7 sites, 151 surveys Calculation tools: LitteR package of R and Excel Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

### Marine subregion level

2015-2020: No trend

Slope: -6 items/100 m per year p-value: 0.179

### Site level

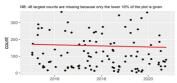


Trends over 2015-2020

- Significant decrease
- Significant increase
- No trend

### Trends per category of interest (mesoplastic fragments excluded)

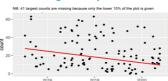
### **Artificial polymer materials (plastics)**



2015-2020: No trend

Slope: -3 items/100 m per year p-value: 0.214

### Single-use plastics

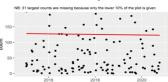


2015-2020: Significant decrease

Slope: -3 items/100 m per year

p-value: 0.020

### Maritime-related plastic items



2015-2020: No trend

Slope: -1 item/100 m per year

p-value: 0.311

### Trends per litter type of interest

### **Plastic bags**

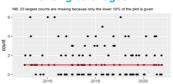


2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.585

### **Hunting cartridges**

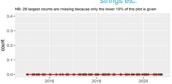


2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.247

### incl. plastic valves, ribbons **Balloons**

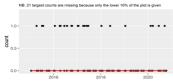


2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.033

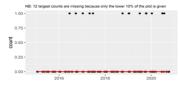
### **Cotton bud sticks**



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.162

### **Cigarette filters**



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.999

Count of litter items per survev

Theil-Sen trend line

### Key message

Beach litter is abundant on survey sites in the subregion Celtic Seas - France, with a median total count of 204 items/100 m. Plastic material is predominant, representing 94% of the beach litter items recorded, with a median of 167 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 25 items/100 m (17%) and 57 items/100 m (39%) respectively.

Plastic / polystyrene pieces (22 items/100 m; 33%) and strings and cords (13 items/100 m; 19%) are abundant litter types.

At least 60% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 9% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded.

### **OSPAR Region Celtic Seas - Ireland**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 4 sites, 48 surveys (for MSFD TV assessment: 4 sites, 48 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

Assessment method: CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter

and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



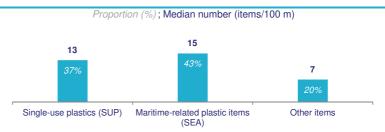
### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 2508 items collected Medians of survey sites 300 Median total count: 31 items/100 m 250 Litter items/100 200 150 100 MSFD threshold value assessment 50 Assessed abundance: 35 items/100 m A reduction of 43% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### Litter composition

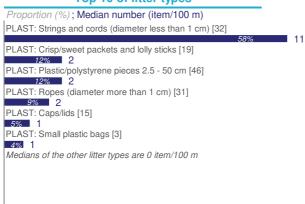
### **Material composition**

### Proportion (%); Median values (items/100 m) Artificial Polym. Material 0 Rubber 0 Cloth/textile Paper/cardboard Processed/worked wood 0 0 Metal 0 Glass/Ceramics Undefined 0

### **Use categories**



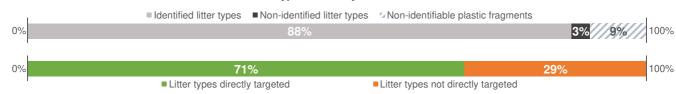
### Top 10 of litter types



### Litter types targeted by RAP measures

	Medians
Plastic bags	0 item/100 m
28 items collected	
Cigarette filters 5 items collected	0 item/100 m
Cotton bud sticks 1 items collected	0 item/100 m
Hunting cartridges 7 items collected	0 item/100 m
Balloons incl. plastic valves, ribbons, strings etc.  14 items collected	0 item/100 m

### Assessment of survey list adequacy and measures coverage



### **OSPAR Region Celtic Seas - Ireland**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting



### **BEACH LITTER POLLUTION TRENDS 2015-2020**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 4 sites, 96 surveys Calculation tools: LitteR package of R and Excel Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

### Marine subregion level

2015-2020: Significant decrease

Slope: -8 items/100 m per year p-value: 0.001

### Site level

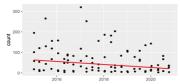


Trends over 2015-2020

- Significant decrease
- Significant increase
- No trend

### Trends per category of interest (mesoplastic fragments excluded)

### **Artificial polymer materials (plastics)**

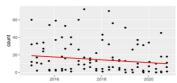


2015-2020: Significant decrease

Slope: -7 items/100 m per year

p-value: 0.003

### Single-use plastics

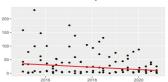


2015-2020: Significant decrease

Slope: -2 items/100 m per year

p-value: 0.000

### Maritime-related plastic items



2015-2020: No trend

Slope: -4 items/100 m per year

p-value: 0.055

### Trends per litter type of interest

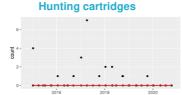
### **Plastic bags**



2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.187



2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.145

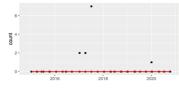


2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.471

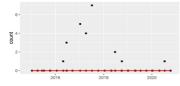
### **Cotton bud sticks**



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.545

### **Cigarette filters**



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.622

Count of litter items per survev

Theil-Sen trend line

### Key message

Beach litter is relatively low on survey sites in the subregion Celtic Seas - Ireland, with a median total count of 31 items/100 m.

Plastic material is predominant, representing 100% of the beach litter items recorded, with a median of 29 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 13 items/100 m (37%) and 15 items/100 m (43%) respectively.

Strings and cords (11 items/100 m; 58%) is the most abundant litter type.

At least 71% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 3% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded.

### **OSPAR Region Celtic Seas - United Kingdom**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 20 sites, 191 surveys (for MSFD TV assessment: 22 sites, 195 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

Assessment method: CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter

and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



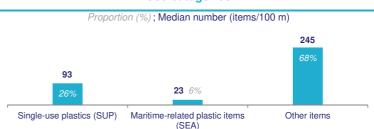
### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 123212 items collected Medians of survey sites 600 Median total count: 490 items/100 m 500 items/100 400 300 200 MSFD threshold value assessment Litter 100 Assessed abundance: 371 items/100 m 0 A reduction of 95% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### Litter composition

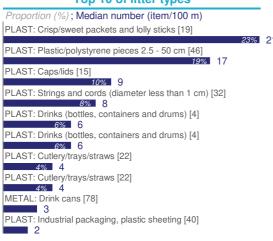
### **Material composition**

### Proportion (%); Median values (items/100 m) Artificial Polym. Material 6 Rubber 1 Cloth/textile Paper/cardboard Processed/worked wood 2 Metal 13 Glass/Ceramics 5 Undefined 0

### **Use categories**



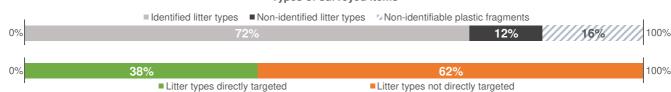
Top 10 of litter types



### Litter types targeted by RAP measures

	Medians
Plastic bags	1 item/100 m
708 items collected	i item/100 iii
Cigarette filters	0 item/100 m
970 items collected	o hem room
Cotton bud sticks	6 items/100 m
15288 items collected	
Hunting cartridges	0 item/100 m
568 items collected	
Balloons incl. plastic valves,	
nobolio, ourigo oto.	2 items/100 m
953 items collected	

### Assessment of survey list adequacy and measures coverage



### **OSPAR Region Celtic Seas - United Kingdom**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.

### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 15 sites, 283 surveys Calculation tools: LitteR package of R and Excel Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

### Marine subregion level

2015-2020: Significant decrease

Slope: -19 items/100 m per year

p-value: 0.001

### Site level

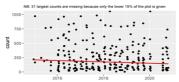


Trends over 2015-2020

- Significant decrease
- Significant increase
- No trend

### Trends per category of interest (mesoplastic fragments excluded)

### **Artificial polymer materials (plastics)**

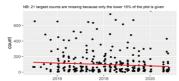


2015-2020: Significant decrease

Slope: -12 items/100 m per year

p-value: 0.000

### Single-use plastics

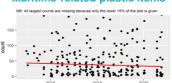


2015-2020: Significant decrease

Slope: -9 items/100 m per year

p-value: 0.000

### Maritime-related plastic items



2015-2020: Significant decrease

Slope: -2 items/100 m per year

p-value: 0.001

### Trends per litter type of interest

### **Plastic bags**



2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.000

### **Hunting cartridges**



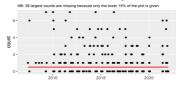
2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.003

### **Balloons**

incl. plastic valves, ribbons

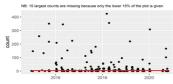


2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.029

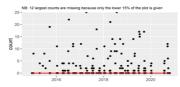
### Cotton bud sticks



2015-2020: No trend

p-value: 0.069

### **Cigarette filters**



Slope: 0 item/100 m per year p-value: 0.987

2015-2020: No trend

### Slope: 0 item/100 m per year

### Count of litter items per survev

Theil-Sen trend line

### Key message

Beach litter is abundant on survey sites in the subregion Celtic Seas - United Kingdom, with a median total count of 490 items/100 m.

Plastic material is predominant, representing 90% of the beach litter items recorded, with a median of 243 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 93 items/100 m (26%) 23 items/100 m (6%) respectively.

Crisps/sweets packets (21 items/100 m; 23%) and plastic / polystyrene pieces (17 items/100 m; 19%) are abundant litter types.

At least 38% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 12% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded.

### **OSPAR Region Greater North Sea - Denmark**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

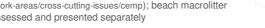
Reporting period: 2018-2020

Number of sites and surveys: 4 sites, 38 surveys (for MSFD TV assessment: 4 sites, 38 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

Assessment method: CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately





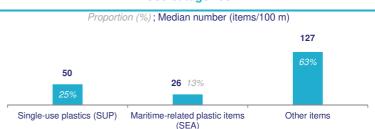
### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 12457 items collected Medians of survey sites 300 II: Greater North Sea Median total count: 253 items/100 m 250 Litter items/100 200 150 100 MSFD threshold value assessment 50 Assessed abundance: 237 items/100 m 0 A reduction of 92% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### Litter composition

### **Material composition**

### Proportion (%); Median values (items/100 m) Artificial Polym. Material Rubber 2 Cloth/textile Paper/cardboard Processed/worked wood Metal 2 Glass/Ceramics 5 Undefined 0

### **Use categories**



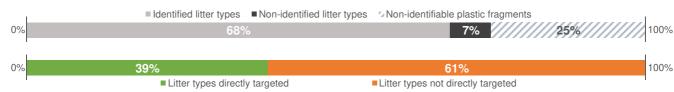
Top 10 of litter types

Proportion (%); Median number (item/100 m) PLAST: Plastic/polystyrene pieces 2.5 - 50 cm [46] PLAST: Strings and cords (diameter less than 1 cm) [32] PLAST: Caps/lids [15] *6*% 8 PLAST: Foam sponges [45] 5% 8 PLAST: Shtogun cartridges [43] PLAST: Crisp/sweet packets and lolly sticks [19] PLAST: Industrial packaging, plastic sheeting [40] 3% 5 PLAST: Other plastic/polystyrene items [48] PLAST: Small plastic bags [3] PLAST: Industrial packaging, plastic sheeting [40] 3

### Litter types targeted by RAP measures

	Medians
Plastic bags	1 item/100 m
113 items collected	Titem/100 m
Cigarette filters	1 item/100 m
36 items collected	T RCIT/ TOO III
Cotton bud sticks	2 items/100 m
1022 items collected	
Hunting cartridges	6 items/100 m
298 items collected	
Balloons incl. plastic valves,	
ribboris, strings etc.	2 items/100 m
168 items collected	

### Assessment of survey list adequacy and measures coverage



### **OSPAR Region Greater North Sea - Denmark**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting



### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 3 sites, 59 surveys Calculation tools: LitteR package of R and Excel Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

### Marine subregion level

## •:••• p-value: 0.012

2015-2020: Significant decrease

Slope: -12 items/100 m per year

### Site level

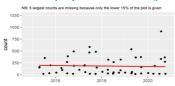


Trends over 2015-2020

- Significant decrease
- Significant increase
- No trend

### Trends per category of interest (mesoplastic fragments excluded)

### **Artificial polymer materials (plastics)**

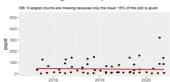


2015-2020: Significant decrease

Slope: -5 items/100 m per year

p-value: 0.021

### Single-use plastics

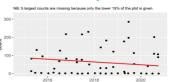


2015-2020: No trend

Slope: -2 items/100 m per year

p-value: 0.100

### Maritime-related plastic items



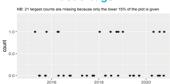
2015-2020: Significant decrease

Slope: -8 items/100 m per year

p-value: 0.001

### Trends per litter type of interest

### **Plastic bags**



2015-2020: No trend

Slope: 0 item/100 m per year

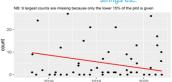
p-value: 0.451



2015-2020: Significant decrease

Slope: -1 item/100 m per year p-value: 0.031



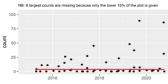


2015-2020: Significant decrease

Slope: -2 items/100 m per year

p-value: 0.008

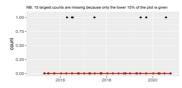
### Cotton bud sticks



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.667

### **Cigarette filters**



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.818

Count of litter items per survev

Theil-Sen trend line

### Key message

Beach litter is abundant on survey sites in the subregion Greater North Sea - Denmark, with a median total count of 253 items/100 m.

Plastic material is predominant, representing 94% of the beach litter items recorded, with a median of 234 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 50 items/100 m (25%) and 26 items/100 m (13%) respectively.

Plastic / polystyrene pieces (59 items/100 m; 41%) and strings and cords (22 items/100 m; 15%) are abundant litter types.

At least 39% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 7% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded. 25% of the litter items are non-identifiable plastic fragments, which cannot be used for the identification of sources of pollution.

### **OSPAR Region Greater North Sea - France**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

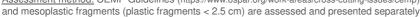
Reporting period: 2018-2020

Number of sites and surveys: 5 sites, 49 surveys (for MSFD TV assessment: 8 sites, 61 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

Assessment method: CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter





### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 60138 items collected Medians of survey sites 1200 Median total count: 1032 items/100 m 1000 Litter items/100 800 600 400 MSFD threshold value assessment 200 Assessed abundance: 610 items/100 m 0 A reduction of 97% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

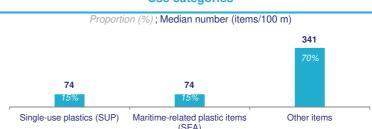
### Litter composition

### **Material composition**

### Proportion (%); Median values (items/100 m) Artificial Polym. Material 5 Rubber 5 Cloth/textile Paper/cardboard Processed/worked wood 8 Metal 12 1 Glass/Ceramics

Undefined 2

### **Use categories**



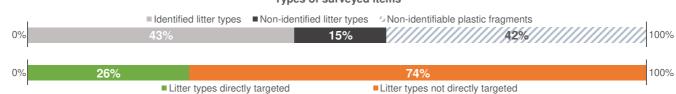
### Top 10 of litter types



### Litter types targeted by RAP measures

	Medians
Plastic bags	1 item/100 m
75 items collected	Them too m
Cigarette filters	3 items/100 m
297 items collected	3 items/100 iii
Cotton bud sticks	0 item/100 m
315 items collected	o nom roo m
Hunting cartridges	2 items/100 m
520 items collected	2 1101113/100111
Balloons incl. plastic valves, ribbons, strings etc.	2 items/100 m
184 items collected	= 1101110/100111

### Assessment of survey list adequacy and measures coverage



### **OSPAR Region Greater North Sea - France**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 3 sites, 49 surveys
Calculation tools: LitteR package of R and Excel
Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

### Marine subregion level

### NB: 9 largest courts are missing because only the lower 30% of the pilot is given 2000 - 1000 - 2018 2000 - 2018 2000

2015-2020: No trend

Slope: -15 items/100 m per year

p-value: 0.083

### Site level

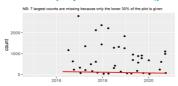


Trends over 2015-2020

- Significant decrease
- Significant increase
- No trend

### Trends per category of interest (mesoplastic fragments excluded)

### **Artificial polymer materials (plastics)**

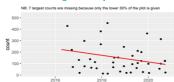


2015-2020: No trend

Slope: -17 items/100 m per year

p-value: 0.069

### Single-use plastics

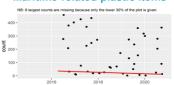


2015-2020: Significant decrease

Slope: -29 items/100 m per year

p-value: 0.000

### Maritime-related plastic items



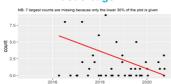
2015-2020: Significant decrease

Slope: -6 items/100 m per year

p-value: 0.031

### Trends per litter type of interest

### **Plastic bags**

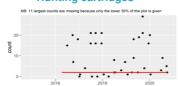


2015-2020: Significant decrease

Slope: -1 item/100 m per year

p-value: 0.024

### Hunting cartridges



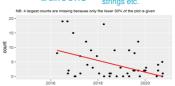
2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.361

### Balloons

incl. plastic valves, ribbons,

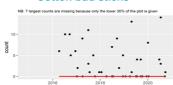


2015-2020: Significant decrease

Slope: -2 item/100 m per year

p-value: 0.001

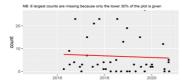
### Cotton bud sticks



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.014

### Cigarette filters



2015-2020: Significant decrease

Slope: -1 item/100 m per year p-value: 0.047

Count of litter items per survey

Theil-Sen trend line

### Key message

Beach litter is abundant on survey sites in the subregion Greater North Sea - France, with a median total count of 1032 items/100 m.

Plastic material is predominant, representing 97% of the beach litter items recorded, with a median of 990 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 74 items/100 m (15%) and 74 items/100 m (15%) respectively.

Plastic / polystyrene pieces (187 items/100 m; 51%) and strings and cords (45 items/100 m; 12%) are abundant litter types.

At least 26% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 15% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded.

### **OSPAR Region Greater North Sea - Germany**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 7 sites, 80 surveys (for MSFD TV assessment: 9 sites, 88 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

Assessment method: CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter

and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



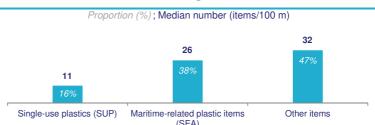
### Litter abundance **Abundances** Position in OSPAR area **Spatial distribution** 8111 items collected Medians of survey 300 Median total count: 64 items/100 m 250 Litter items/100 200 150 100 MSFD threshold value assessment 50 Assessed abundance: 68 items/100 m 0 A reduction of 70% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### Litter composition

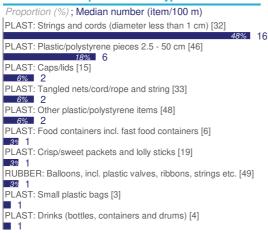
### **Material composition**

### Proportion (%); Median values (items/100 m) Artificial Polym. Material Rubber 1 0 Cloth/textile Paper/cardboard Processed/worked wood Metal 2 Glass/Ceramics 1 Undefined 0

### **Use categories**



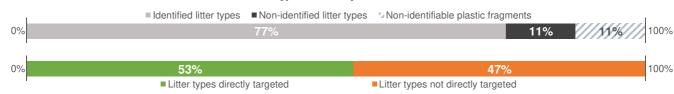
### Top 10 of litter types



### Litter types targeted by RAP measures

=ittor typoo targotoa by	TITIL THOUGHTOO
	Medians
Plastic bags	0 item/100 m
58 items collected	o nem/100 m
Cigarette filters	0 item/100 m
50 items collected	o hem roo m
Cotton bud sticks	0 item/100 m
53 items collected	
Hunting cartridges	0 item/100 m
17 items collected	
D_U incl. plastic valves	
Balloons incl. plastic valves, ribbons, strings etc.	1 item/100 m
152 items collected	

### Assessment of survey list adequacy and measures coverage



### **OSPAR Region Greater North Sea - Germany**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 4 sites, 88 surveys
Calculation tools: LitteR package of R and Excel
Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

### Marine subregion level

## NB: 27 largest counts are missing because only the lower 30% of the plot is given 100 - 75 - 50 - 2016 2018 2020

2015-2020: Significant decrease

Slope: -6 items/100 m per year p-value: 0.010

### Greater North Sea DE006

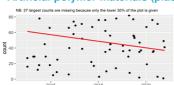
### Trends over 2015-2020

- Significant decrease
- Significant decreaseSignificant increase
- No trend

Site level

### Trends per category of interest (mesoplastic fragments excluded)

### **Artificial polymer materials (plastics)**

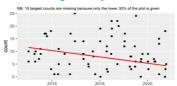


2015-2020: Significant decrease

Slope: -4 items/100 m per year

p-value: 0.030

### Single-use plastics

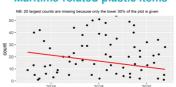


2015-2020: Significant decrease

Slope: -1 item/100 m per year

p-value: 0.005

### Maritime-related plastic items



2015-2020: No trend

Slope: -2 items/100 m per year

p-value: 0.078

### Trends per litter type of interest

### Plastic bags



2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.194

### Hunting cartridges



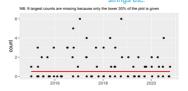
2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.676

### Balloons

incl. plastic valves, ribbons

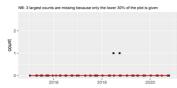


2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.089

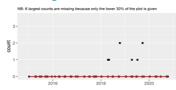
### Cotton bud sticks



2015-2020: No trend

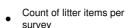
Slope: 0 item/100 m per year p-value: 0.930

### **Cigarette filters**



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.963



Theil-Sen trend line

### Key message

Beach litter is abundant on survey sites in the subregion Greater North Sea - Germany, with a median total count of 64 items/100 m.

Plastic material is predominant, representing 93% of the beach litter items recorded, with a median of 56 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 11 items/100 m (16%) and 26 items/100 m (38%) respectively.

String and cords (16 items/100 m; 48%) and plastic / polystyrene pieces (6 items/100 m; 18%) are abundant litter types.

At least 53% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 11% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded.

### **OSPAR Region Greater North Sea - Netherlands**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 4 sites, 47 surveys (for MSFD TV assessment: 4 sites, 47 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

<u>Assessment method:</u> CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 9102 items collected Medians of survey sites 300 Median total count: 130 items/100 m 250 Litter items/100 200 150 100 MSFD threshold value assessment 50 Assessed abundance: 135 items/100 m 0 A reduction of 85% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### **Litter composition**

### **Material composition**

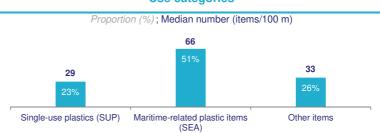
# Proportion (%); Median values (items/100 m) Artificial Polym. Material Rubber Cloth/textile Paper/cardboard Processed/worked wood Metal Glass/Ceramics Undefined Proportion (%); Median values (items/100 m) 13 14 0 1 2 Undefined 0

PLAST: Small plastic bags [3]

2

PLAST: Industrial packaging, plastic sheeting [40]

### **Use categories**



Top 10 of litter types

Proportion (%); Median number (item/100 m)

PLAST: Strings and cords (diameter less than 1 cm) [32]

PLAST: Plastic/polystyrene pieces 2.5 - 50 cm [46]

10% 11

PLAST: Nets and pieces of net < 50 cm [115]

6% 6

PLAST: Crisp/sweet packets and lolly sticks [19]

5% 6

PLAST: Caps/lids [15]

4% 5

PLAST: Tangled nets/cord/rope and string [33]

3% 4

PLAST: Foam sponges [45]

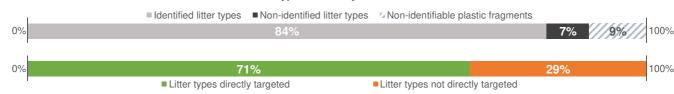
3% 3

RUBBER: Balloons, incl. plastic valves, ribbons, strings etc. [49]

### Litter types targeted by RAP measures

=ittoi typoo tai gotoa by	TITU MOUGUIOG
	Medians
Plastic bags	1 item/100 m
66 items collected	i item/100 iii
Cigarette filters	1 item/100 m
123 items collected	T Item/100 III
Cotton bud sticks	1 item/100 m
340 items collected	7 110111/100 111
Hunting cartridges	0 item/100 m
83 items collected	
incl. plactic valves	
Balloons incl. plastic valves, ribbons, strings etc.	3 items/100 m
235 items collected	

### Assessment of survey list adequacy and measures coverage



### **OSPAR Region Greater North Sea - Netherlands**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 4 sites, 95 surveys
Calculation tools: LitteR package of R and Excel
Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

### Marine subregion level

### NB: 2 largest counts are missing because only the lower 50% of the piot is given 600 - 200 - 2016 2018 2020

2015-2020: Significant decrease

Slope: -17 items/100 m per year p-value: 0.003

### Site level

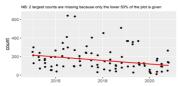


Trends over 2015-2020

- Significant decrease
- Significant increase
- No trend

### Trends per category of interest (mesoplastic fragments excluded)

### **Artificial polymer materials (plastics)**

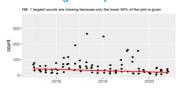


2015-2020: Significant decrease

Slope: -19 items/100 m per year

p-value: 0.004

### Single-use plastics

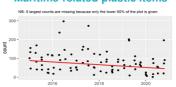


2015-2020: Significant decrease

Slope: -4 items/100 m per year

p-value: 0.006

### Maritime-related plastic items



2015-2020: Significant decrease

Slope: -7 items/100 m per year

p-value: 0.004

### Trends per litter type of interest

### Plastic bags

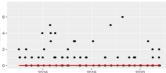


2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.848

### Hunting cartridges 6 largest counts are missing because only the lower 50% of the



2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.077

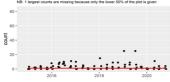
### Balloons incl. plastic valves, ribbon strings etc. NB: 5 largest counts are missing because only the lower 50% of the plot is given

2015-2020: Significant decrease

Slope: -1 item/100 m per year

p-value: 0.000

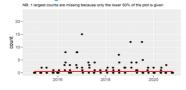




2015-2020: No trend

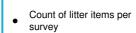
Slope: 0 item/100 m per year p-value: 0.388

### Cigarette filters



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.689



Theil-Sen trend line

### Key message

Beach litter is abundant on survey sites in the subregion Greater North Sea - Netherlands, with a median total count of 130 items/100 m.

Plastic material is predominant, representing 91% of the beach litter items recorded, with a median of 113 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 29 items/100 m (23%) and 66 items/100 m (51%) respectively.

Strings and cords (53 items/100 m, 49%) and plastic / polystyrene pieces (11 items/100 m; 10%) are abundant litter types.

At least 71% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 7% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded.

### **OSPAR Region Greater North Sea - Norway**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 1 site, 6 surveys (for MSFD TV assessment: 2 sites, 9 surveys)

<u>Calculation tools:</u> LitteR package and Excel <u>Data format:</u> OSPAR litter reference list, version 2010 This pollution status is provided for information only due to a limited number of site.

<u>Assessment method:</u> CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



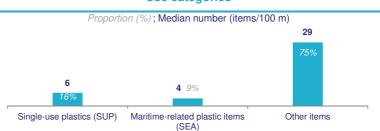
### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 301 items collected Medians of survey sites 300 Median total count: 40 items/100 m 250 Litter items/100 200 150 100 MSFD threshold value assessment 50 Assessed abundance: 65 items/100 m A reduction of 69% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### Litter composition

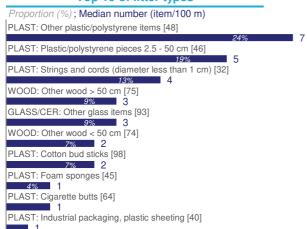
### **Material composition**



### **Use categories**



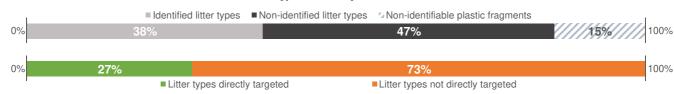
### Top 10 of litter types



### Litter types targeted by RAP measures

	Medians
Plastic bags 1 items collected	0 item/100 m
Cigarette filters 4 items collected	1 item/100 m
Cotton bud sticks 20 items collected	2 items/100 m
Hunting cartridges 1 items collected	0 item/100 m
Balloons incl. plastic valves, ribbons, strings etc. 2 items collected	0 item/100 m

### Assessment of survey list adequacy and measures coverage



### **OSPAR Region Greater North Sea - Norway**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting



### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 1 sites, 12 surveys Calculation tools: LitteR package of R and Excel

These trends are provided for information only due to a limited number of site

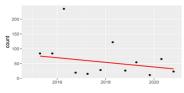
Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

### Marine subregion level

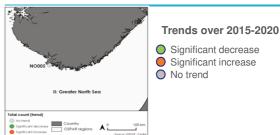


2015-2020: No trend

Slope: -8 items/100 m per year

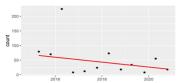
p-value: 0.136

### Site level



### Trends per category of interest (mesoplastic fragments excluded)

### **Artificial polymer materials (plastics)**

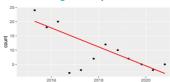


2015-2020: No trend

Slope: -8 items/100 m per year

p-value: 0.151

### Single-use plastics

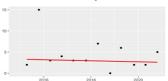


2015-2020: Significant decrease

Slope: -3 items/100 m per vear

p-value: 0.036

### Maritime-related plastic items



2015-2020: No trend

Slope: -0.1 item/100 m per year

p-value: 0.364

### Trends per litter type of interest

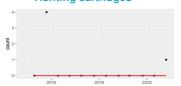
### **Plastic bags**

2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.926

### **Hunting cartridges**



2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.500

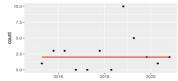


2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.408

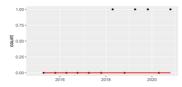
### **Cotton bud sticks**



2015-2020: No trend

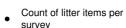
Slope: 0 item/100 m per year p-value: 0.583

### **Cigarette filters**



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.975



Theil-Sen trend line

### Key message

Beach litter is relatively low on survey sites in the subregion Greater North Sea - Norway, with a median total count of 40 items/100 m.

Plastic material is predominant, representing 78% of the beach litter items recorded, with a median of 26 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 6 items/100 m (16%) and 4 items/100 m (9%) respectively.

Other plastic / polystyrene items (7 items/100 m; 24%), plastic / polystyrene pieces (5 items/100 m; 19%) and strings and cords (4 items/100 m; 13%) are abundant litter types. At least 27% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

47% of the litter items are not identified.

### **OSPAR Region Greater North Sea - Sweden**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 6 sites, 54 surveys (for MSFD TV assessment: 6 sites, 54 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

Assessment method: CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter

and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



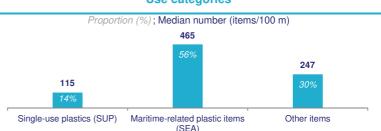
### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 535986 items collected Medians of survey sites 1000 Median total count: 790 items/100 m 800 items/100 600 400 MSFD threshold value assessment Litter 200 Assessed abundance: 806 items/100 m 0 A reduction of 98% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### **Litter composition**

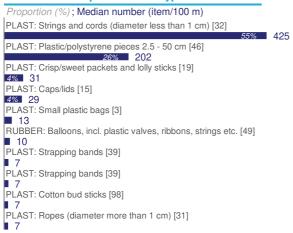
### **Material composition**

# Proportion (%); Median values (items/100 m) Artificial Polym. Material Rubber Cloth/textile Paper/cardboard Processed/worked wood Metal Glass/Ceramics Undefined 0

### **Use categories**



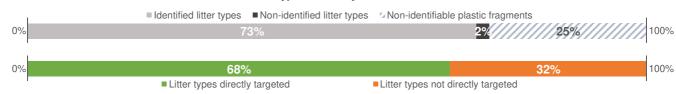
### Top 10 of litter types



### Litter types targeted by RAP measures

	,
	Medians
Plastic bags	4 items/100 m
420 items collected	4 (lems/100 m
Cigarette filters	0 item/100 m
71 items collected	U ILEITI/ TUU TIT
Cotton bud sticks	7 items/100 m
12567 items collected	7 Remo, 100 m
Hunting cartridges	3 items/100 m
3583 items collected	o nome, rec m
Balloons incl. plastic valves, ribbons, strings etc.	10 items/100 m
5428 items collected	

### Assessment of survey list adequacy and measures coverage



### **OSPAR Region Greater North Sea - Sweden**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting



### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

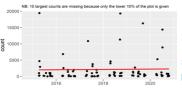
Number of sites and surveys: 6 sites, 105 surveys Calculation tools: LitteR package of R and Excel Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

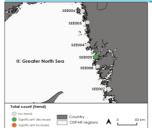
### Marine subregion level



2015-2020: No trend

Slope: 52 items/100 m per year

p-value: 0.624



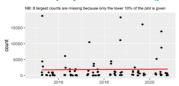
### Trends over 2015-2020

- Significant decrease
- Significant increase
- No trend

Site level

### Trends per category of interest (mesoplastic fragments excluded)

### **Artificial polymer materials (plastics)**

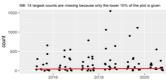


2015-2020: No trend

Slope: 47 items/100 m per year

p-value: 0.500

### Single-use plastics

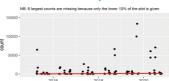


2015-2020: No trend

Slope: 3 items/100 m per year

p-value: 0.338

### Maritime-related plastic items



2015-2020: No trend

Slope: 29 items/100 m per year

p-value: 0.148

### Trends per litter type of interest

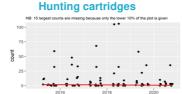
### **Plastic bags**



2015-2020: No trend

Slope: 0 item/100 m per year

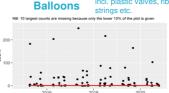
p-value: 0.719



2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.306

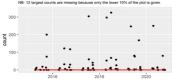


2015-2020: No trend

Slope: -1 item/100 m per year

p-value: 0.461

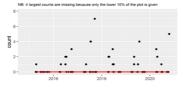
### **Cotton bud sticks**



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.438

### **Cigarette filters**



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.704

Count of litter items per survev

Theil-Sen trend line

### Key message

Beach litter is abundant on survey sites in the subregion Greater North Sea - Sweden, with a median total count of 790 items/100 m.

Plastic material is predominant, representing 97% of the beach litter items recorded, with a median of 771 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 115 items/100 m (14%) and 465 items/100 m (56%) respectively.

Strings and cords (425 items/100 m; 55%) and plastic / polystyrene pieces (202 items/100 m; 26%) are abundant litter types.

At least 68% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 2% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded.

### **OSPAR Region Greater North Sea - United Kingdom**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 6 sites, 52 surveys (for MSFD TV assessment: 10 sites, 63 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

<u>Assessment method:</u> CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 46490 items collected Medians of survey sites 500 Median total count: 452 items/100 m 400 MSFD threshold value assessment Litter 100 Assessed abundance: 369 items/100 m 0 A reduction of 95% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### **Litter composition**

### **Material composition**



### **Use categories**



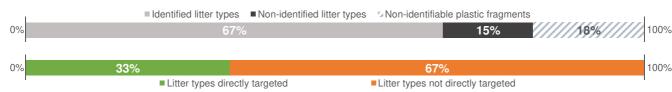
Top 10 of litter types Proportion (%); Median number (item/100 m) PLAST: Plastic/polystyrene pieces 2.5 - 50 cm [46] PLAST: Cotton bud sticks [98] PLAST: Crisp/sweet packets and lolly sticks [19] 7% 16 PLAST: Cigarette butts [64] 6% 13
GLASS/CER: Other glass items [93] 5% 11 PLAST: Caps/lids [15] 5% 11 PLAST: Strings and cords (diameter less than 1 cm) [32] 4% 9 PLAST: Foam sponges [45] 4% 8 PLAST: Plastic/polystyrene pieces > 50 cm [47] 8 PLAST: Industrial packaging, plastic sheeting [40]

### Litter types targeted by RAP measures

	Medians
Plastic bags	2 items/100 m
367 items collected	2 items/100 iii
Cigarette filters	
2707 items collected	13 items/100 m
Cotton bud sticks	
3556 items collected	24 items/100 m
Hunting cartridges 81 items collected	1 item/100 m
Balloons incl. plastic valves, ribbons, strings etc.	1 item/100 m
190 items collected	

### Assessment of survey list adequacy and measures coverage

### Types of surveyed items



5

### **OSPAR Region Greater North Sea - United Kingdom**

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### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 6 sites, 119 surveys
Calculation tools: LitteR package of R and Excel
Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

### Marine subregion level

### NB: 54 largest counts are missing because only the lower 8% of the plot is given 600 - 200 - 2016 2018 2020

2015-2020: No trend

Slope: -22 items/100 m per year

p-value: 0.061

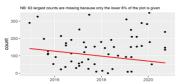
### Site level



- Trends over 2015-2020
- Significant decrease
- Significant increase
- No trend

### Trends per category of interest (mesoplastic fragments excluded)

### **Artificial polymer materials (plastics)**

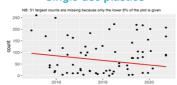


2015-2020: Significant decrease

Slope: -14 items/100 m per year

p-value: 0.032

### Single-use plastics

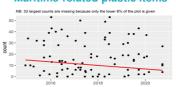


2015-2020: Significant decrease

Slope: -10 items/100 m per year

p-value: 0.002

### Maritime-related plastic items



2015-2020: No trend

Slope: -2 items/100 m per year

p-value: 0.069

### Trends per litter type of interest

### **Plastic bags**

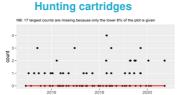


2015-2020: Significant decrease

Slope: -1 item/100 m per year

p-value: 0.003

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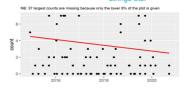
2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.101

### Balloons

incl. plastic valves, ribbons,

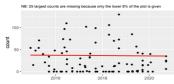


2015-2020: Significant decrease

Slope: -1 item/100 m per year

p-value: 0.013

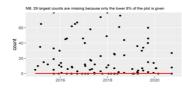
### Cotton bud sticks



2015-2020: No trend

Slope: -1 item/100 m per year p-value: 0.096

### Cigarette filters



Slope: 0 item/100 m per year p-value: 0.221

2015-2020: No trend

### Count of litter items per surveyTheil-Sen trend line

### Key message

Beach litter is abundant on survey sites in the subregion Greater North Sea - United Kingdom, with a median total count of 452 items/100 m.

Plastic material is predominant, representing 83% of the beach litter items recorded, with a median of 328 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 105 items/100 m (26%) and 25 items/100 m (6%) respectively.

Plastic / polystyrene pieces (60 items/100 m; 25%), cotton bud sticks (24 items/100; 11%) and crisps/sweets packets (16 items/100; 7%) are abundant litter types.

At least 33% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 15% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded. 18% of the litter items are non-identifiable plastic fragments, which cannot be used for the identification of sources of pollution.

### **OSPAR Region Wider Atlantic - Portugal**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION STATUS (2018-2020)**

Analysis performed by Cedre (France) and validated by the OSPAR Beach Litter Expert Group

Data source: OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2018-2020

Number of sites and surveys: 6 sites, 56 surveys (for MSFD TV assessment: 6 sites, 56 surveys)

Calculation tools: LitteR package and Excel

Data format: OSPAR litter reference list, version 2010

Assessment method: CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); beach macrolitter

and mesoplastic fragments (plastic fragments < 2.5 cm) are assessed and presented separately



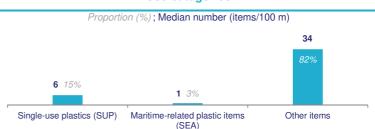
### Litter abundance **Abundance** Position in OSPAR area **Spatial distribution** 4087 items collected Medians of survey sites 300 Median total count: 50 items/100 m 250 Litter items/100 200 150 100 MSFD threshold value assessment 50 Assessed abundance: 51 items/100 m 0 A reduction of 61% of the median total count is required to achieve EU Threshold value of 20 litter items/100 m. Region/subregion median total count OSPAR area median total count

### Litter composition

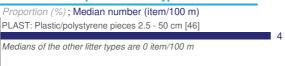


### Proportion (%); Median values (items/100 m) Artificial Polym. Material 0 Rubber 0 Cloth/textile Paper/cardboard Processed/worked wood 2 Metal 0 0 Glass/Ceramics Undefined 0

### **Use categories**



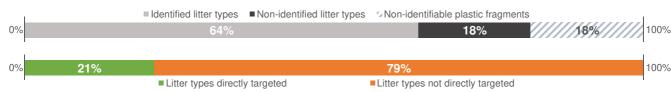
### Top 10 of litter types



### Litter types targeted by RAP measures

	Medians
Plastic bags 28 items collected	0 item/100 m
Cigarette filters 180 items collected	0 item/100 m
Cotton bud sticks 0 items collected	0 item/100 m
Hunting cartridges 40 items collected	0 item/100 m
Balloons incl. plastic valves, ribbons, strings etc.  0 items collected	0 item/100 m

### Assessment of survey list adequacy and measures coverage



### **OSPAR Region Wider Atlantic - Portugal**

Disclaimer: the present factsheet is provided for information only. It does not represent an official reporting.



### **BEACH LITTER POLLUTION TRENDS (2015-2020)**

Analysis performed by Cedre (France) for the OSPAR Beach Litter Expert Group

<u>Data source:</u> OSPAR beach litter monitoring (https://beachlitter.ospar.org/)

Reporting period: 2015-2020 (6 years)

Number of sites and surveys: 6 sites, 103 surveys
Calculation tools: LitteR package of R and Excel
Data format: OSPAR beach litter survey list, version 2010

Assessment format: mesoplastic fragments (plastic fragments < 2.5 cm) are excluded



### Trends in total count (mesoplastic fragments excluded)

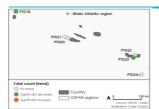
### Marine subregion level

## NB: 4 largest counts are missing because only the lower 40% of the plot is given 300 - 2016 2018 2020

2015-2020: Significant decrease

Slope: -11 items/100 m per year p-value: 0.000

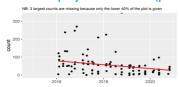
### Site level



Trends over 2015-2020

- Significant decrease
- Significant increaseNo trend
- Trends per category of interest (mesoplastic fragments excluded)

### **Artificial polymer materials (plastics)**

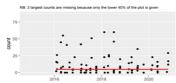


2015-2020: Significant decrease

Slope: -11 items/100 m per year

p-value: 0.000

### Single-use plastics

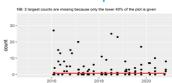


2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.037

### Maritime-related plastic items



2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.134

### Trends per litter type of interest

### 

2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.022

### Ulumbia a contribue



2015-2020: No trend

Slope: 0 item/100 m per year

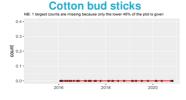
p-value: 0.209



2015-2020: No trend

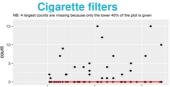
Slope: -1 item/100 m per year

p-value: 0.042



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.062



2015-2020: No trend

Slope: 0 item/100 m per year p-value: 0.711



### Key message

Beach litter is relatively low on survey sites in the subregion Wider Atlantic - Portugal, with a median total count of 50 items/100 m.

Plastic material is predominant, representing 96% of the beach litter items recorded, with a median of 35 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 6 items/100 m (15%) and 1 item/100 m (3%) respectively.

Plastic / polystyrene pieces (4 items/100 m) are the only significant litter types.

At least 21% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 18% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded. 18% of the litter items are non-identifiable plastic fragments, which cannot be used for the identification of sources of pollution.