OSPAR Area
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 (3 years)
Number of sites and surveys: 114 sites, 1137 surveys
Calculation tools: LitteR package and Excel
Data format: OSPAR beach litter reference list, version 2010
Assessment method: CEMP Guidelines (https://www.ospar.org/work-areas/cross-cutting-issues/cemp); mesoplastic fragments (plastic fragments < 2.5 cm) are excluded
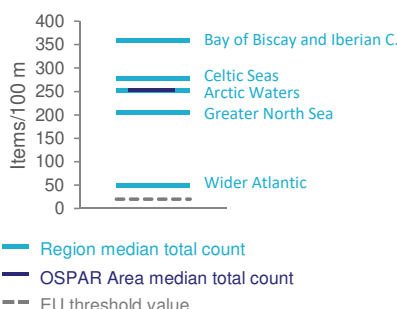
Litter abundance

Abundance

1038647 items collected

Median total count: 252 items/100 m

A reduction of the median total count is required to achieve EU threshold value of 20 litter items/100 m.

Position in OSPAR Area

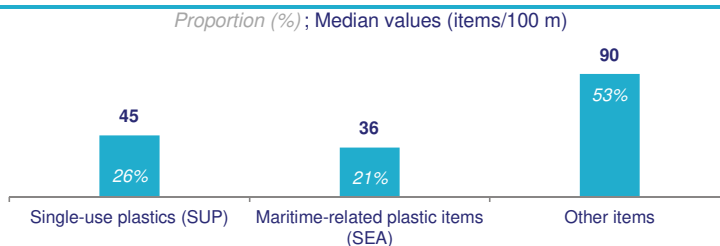- Bay of Biscay and Iberian C.
- Celtic Seas
- Arctic Waters
- Greater North Sea
- Wider Atlantic

— Region median total count
— OSPAR Area median total count
--- EU threshold value

Spatial distribution

Medians of survey sites

Litter composition

Material composition

Proportion (%) ; **Median values (items/100 m)**

Material	Median	Proportion
Artificial polym. material	**194**	94%
Rubber	**2**	1%
Cloth/textile	**1**	0%
Paper/cardboard	**1**	0%
Processed/worked wood	**3**	2%
Metal	**3**	2%
Glass/ceramics	**2**	1%
Undefined	**0**	0%

Use categories

Proportion (%) ; Median values (items/100 m)

Category	Median	Proportion
Single-use plastics (SUP)	45	26%
Maritime-related plastic items (SEA)	36	21%
Other items	90	53%

Top 10 of litter types

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

Litter type	Proportion	Median
PLAST: Plastic/polystyrene pieces 2.5 - 50 cm [46]	30%	21
PLAST: Strings and cords (diameter less than 1 cm) [32]	24%	17
PLAST: Caps/lids [15]	12%	8
PLAST: Crisp/sweet packets and lolly sticks [19]	9%	6
PLAST: Other plastic/polystyrene items [48]	4%	3
PLAST: Drinks (bottles, containers and drums) [4]	3%	2
PLAST: Ropes (diameter more than 1 cm) [31]	3%	2
PLAST: Cutlery/trays/straws [22]	2%	2
PLAST: Foam sponges [45]	2%	2
PLAST: Cotton bud sticks [98]	2%	2

Litter types targeted by RAP measures

Medians

Plastic bags
4658 items collected
1 item/100 m

Hunting cartridges
7355 items collected
1 item/100 m

Balloons incl. plastic valves, ribbons, strings etc.
7645 items collected
0 item/100 m

Cotton bud sticks
43475 items collected
2 items/100 m

Cigarette filters
23677 items collected
0 item/100 m

Assessment of survey list adequacy and measures coverage

Types of surveyed items

■ Identified litter types   ■ Non-identified litter types   ▨ Non-identifiable plastic fragments

0%	79%	8%	13%	100%

Litter total count

0%	54%	46%	100%

■ Litter types directly targeted   ■ Litter types not directly targeted
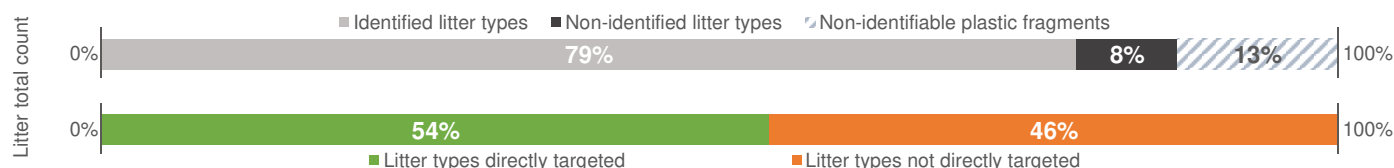
Part of items targeted by measures
(ML RAP 2014-2020 and Directive EU 2019/904)

OSPAR Area
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/)

<u>Reporting period:</u> 2015-2020 (6 years)

<u>Number of sites and surveys:</u> 83 sites, 1693 surveys

<u>Calculation tools:</u> LitteR package of R and Excel

<u>Data format:</u> OSPAR beach litter reference list, version 2010

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

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Trends in total count

OSPAR Area level

NB: 106 largest counts are missing because only the lower 1% of the plot is given
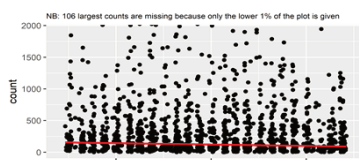
2015-2020: Significant decrease

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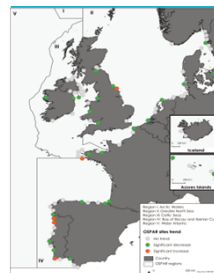
Site level

Trends over 2015-2020

- 🟢 Significant decrease
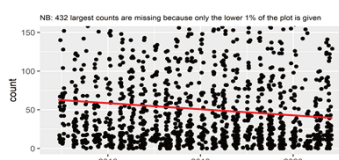- 🟠 Significant increase
- 🟣 No trend

Trends for categories of interest

Artificial polymer materials (plastics)

NB: 88 largest counts are missing because only the lower 1% of the plot is given

2015-2020: **Significant decrease**

Slope: -9 items/100 m per year
p-value: 0.000

Single-use plastics

NB: 432 largest counts are missing because only the lower 1% of the plot is given
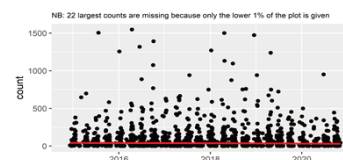
2015-2020: **Significant decrease**

Slope: -4 items/100 m per year
p-value: 0.000

Maritime-related plastic items

NB: 22 largest counts are missing because only the lower 1% of the plot is given
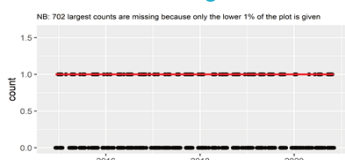
2015-2020: **Significant decrease**

Slope: -2 items/100 m per year
p-value: 0.000

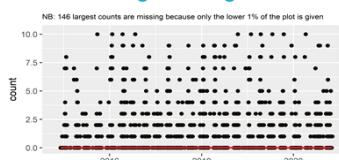
Trends for litter types targeted by RAP measures

Plastic bags

NB: 702 largest counts are missing because only the lower 1% of the plot is given

2015-2020: **No trend**

Slope: 0 item/100 m per year
p-value: 0.003

Hunting cartridges

NB: 146 largest counts are missing because only the lower 1% of the plot is given

2015-2020: **No trend**

Slope: 0 item/100 m per year
p-value: 0.000

Balloons
incl. plastic valves, ribbons, strings etc.

NB: 62 largest counts are missing because only the lower 1% of the plot is given

2015-2020: **No trend**

Slope: 0 item/100 m per year
p-value: 0.000

Cotton bud sticks

NB: 232 largest counts are missing because only the lower 1% of the plot is given

2015-2020: **No trend**

Slope: 0 item/100 m per year
p-value: 0.005

Cigarette filters

NB: 378 largest counts are missing because only the lower 1% of the plot is given

2015-2020: **No trend**

Slope: 0 item/100 m per year
p-value: 0.977

- • Count of litter items per survey
- — Theil-Sen trend line

Key message

Beach litter is abundant on survey sites in the OSPAR Area, with a median total count of 252 items/100 m.

Plastic material is predominant, representing 94% of the beach litter items recorded, with a median of 194 items/100 m.

SUP and SEA use categories appear to contribute to the pollution with medians of 45 items/100 m (26%) 36 items/100 m (21%) respectively.

Plastic / polystyrene pieces (21 items/100 m; 30%), strings and cords (17 items/100 m; 24%) and caps and lids (8 items/100 m; 12%) are abundant litter types.

At least 54% of the recorded items are directly targeted by OSPAR ML RAP 2014-2020 and the SUP Directive.

Only 8% of the litter items are not identified, indicating that the OSPAR survey list adequately covers the litter items recorded.

13% of the litter items are non-identifiable plastic fragments, which cannot be used for the identification of sources of pollution.