OSPAR Region Wider Atlantic

BEACH LITTER POLLUTION STATUS (2018-2020)

OSPAR — QUALITY STATUS REPORT 2023

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: 6 sites, 56 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
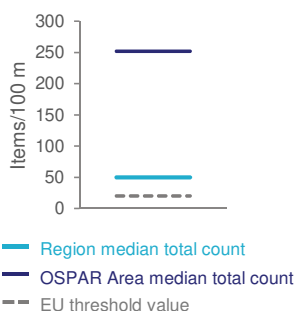
Litter abundance

Abundance

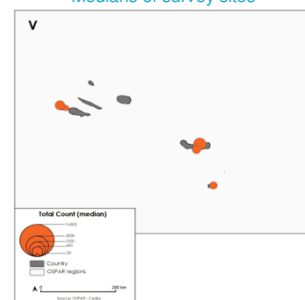*4087 items collected*

Median total count: 50 items/100 m

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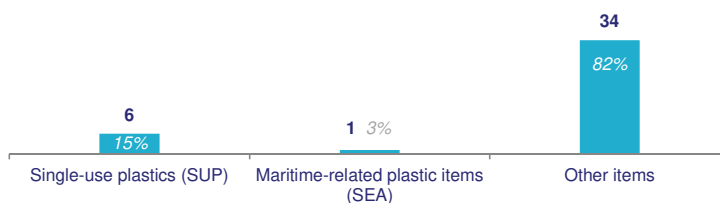
Position in OSPAR Area

- 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	35	96%
Rubber	0	0%
Cloth/textile	0	0%
Paper/cardboard	0	0%
Processed/worked wood	2	4%
Metal	0	0%
Glass/ceramics	0	0%
Undefined	0	0%

Use categories

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

	Median	Proportion
Single-use plastics (SUP)	6	15%
Maritime-related plastic items (SEA)	1	3%
Other items	34	82%

Top 10 of litter types

Proportion ; Median number (item/100 m)

PLAST: Plastic/polystyrene pieces 2.5 - 50 cm [46] — 4

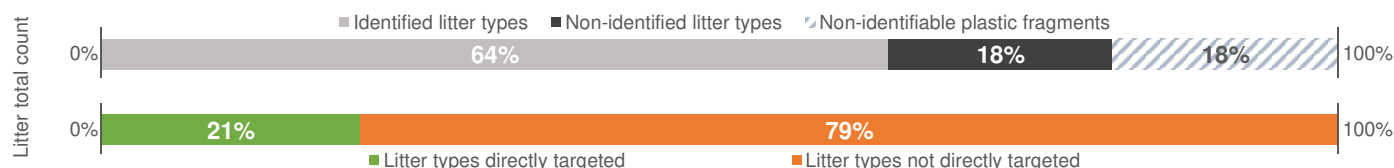*Medians of the other litter types are 0 item/100 m*

Litter types targeted by RAP measures

	Medians
Plastic bags 28 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
Cotton bud sticks 0 items collected	0 item/100 m
Cigarette filters 180 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

Litter total count

0% — 64% — 18% — 18% — 100%

0% — 21% — 79% — 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 Region Wider Atlantic
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: 6 sites, 103 surveys

Calculation tools: LitteR package of R 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

Trends in total count

Region level

NB: 4 largest counts are missing because only the lower 40% 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
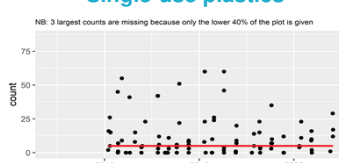- No trend

Trends for categories of interest

Artificial polymer materials (plastics)

NB: 3 largest counts are missing because only the lower 40% of the plot is given

2015-2020: **Significant decrease**

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

Single-use plastics

NB: 3 largest counts are missing because only the lower 40% of the plot is given

2015-2020: No trend

Slope: 0 item/100 m per year
p-value: 0.037

Maritime-related plastic items

NB: 2 largest counts are missing because only the lower 40% of the plot is given

2015-2020: No trend

Slope: 0 item/100 m per year
p-value: 0.134

Trends for litter types targeted by RAP measures

Plastic bags

NB: 2 largest counts are missing because only the lower 40% of the plot is given

2015-2020: No trend

Slope: 0 item/100 m per year
p-value: 0.022

Hunting cartridges

NB: 5 largest counts are missing because only the lower 40% of the plot is given

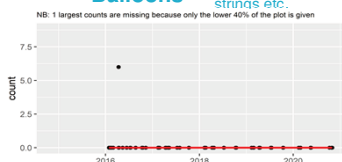2015-2020: No trend

Slope: 0 item/100 m per year
p-value: 0.209

Balloons incl. plastic valves, ribbons, strings etc.

NB: 1 largest counts are missing because only the lower 40% of the plot is given

2015-2020: No trend

Slope: -1 item/100 m per year
p-value: 0.042

Cotton bud sticks

NB: 1 largest counts are missing because only the lower 40% of the plot is given

2015-2020: No trend

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

Cigarette filters

NB: 4 largest counts are missing because only the lower 40% of the plot is given

2015-2020: No trend

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

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

Key message

Beach litter is relatively low on survey sites in the OSPAR Region Wider Atlantic, 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%) 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.