OSPAR Region Arctic Waters

BEACH LITTER POLLUTION STATUS (2018-2020)

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

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

Reporting period: 2018-2020 (3 years)

Number of sites and surveys: 3 sites, 25 surveys Calculation tools: LitteR package and Excel

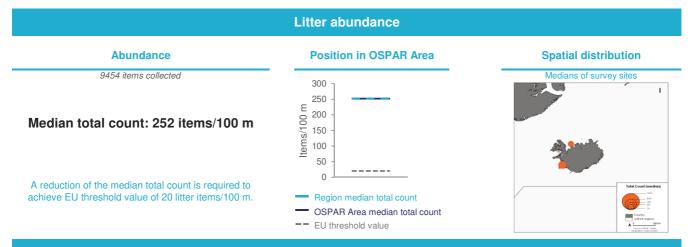
Data format: OSPAR beach litter reference list, version 2010

 $\underline{Assessment\ method:}\ CEMP\ Guidelines\ (https://www.ospar.org/work-areas/cross-cutting-issues/cemp);\ mesoplastic$

fragments (plastic fragments < 2.5 cm) are excluded



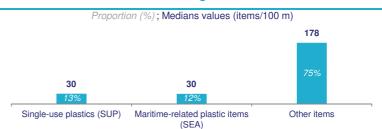




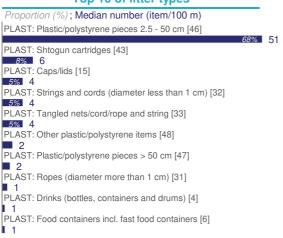
Litter composition

Material composition

Use categories



Top 10 of litter types

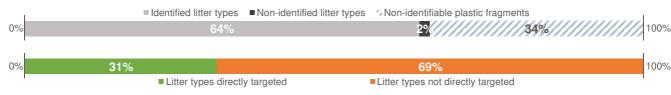


Litter types targeted by RAP measures

Litter types targeted by RAP measures	
	Medians
Plastic bags	0 item/100 m
39 items collected	o item/100 iii
Hunting cartridges	0.4/100
228 items collected	6 items/100 m
Balloons incl. plastic valves, ribbons, strings etc.	0.11. // 0.0
3 items collected	0 item/100 m
Cotton bud sticks	
141 items collected	0 item/100 m
Cigarette filters	
8 items collected	0 item/100 m

Assessment of survey list adequacy and measures coverage

Types of surveyed items



OSPAR Region Arctic Waters

BEACH LITTER POLLUTION TRENDS (2015-2020)



<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 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

2015-2020: No trend

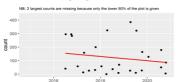
Slope: -6 items/100 m per year n-value: 0.257

Site level



Trends for categories of interest

Artificial polymer materials

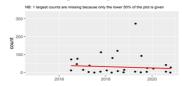


2015-2020: No trend

Slope: -16 items/100 m per year

p-value: 0.164

Single-use plastics

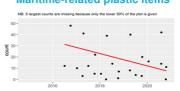


2015-2020: No trend

Slope: -4 items/100 m per year

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

Plastic bags



2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.275

Hunting cartridges

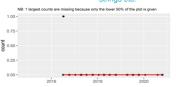


2015-2020: No trend

Slope: -1 item/100 m per year

p-value: 0.174

incl. plastic valves, ribbons, **Balloons** strings etc.

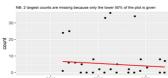


2015-2020: No trend

Slope: 0 item/100 m per year

p-value: 0.500

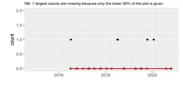
Cotton bud sticks



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

Count of litter items per

Beach litter is abundant on survey sites in the OSPAR Region Arctic Waters, with a median total count of 252 items/100 m. Plastic material is predominant, representing 97% 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%) 30 items/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 31% 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. 34% of the litter items are non-identifiable plastic fragments, which cannot be used for the identification of sources of pollution.

survey Theil-Sen trend line