How to monitor marine litter and tourism waste: results from BLUEISLANDS project

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Brussels, 11 April, 2018

Interreg Mediterranean

BLUEISLANDS

BLUEISLANDS
IN A NUTSHELL

- 14 partners from 8 countries in a systematic effort to properly **identify**, **address** and **mitigate** the effects of the **seasonal variation of waste generation on MED islands**
- Waste Characteristics Study (quantification and characteriszation of waste generated by hotels, restaurants, bars, etc., in selected impact areas). **2018**
- Monitoring and reuse of wastewater discharges in coastal marine ecosystems. **2017**
- Monitoring of marine litter in 24 beaches of 8 islands (micro- and macroplastics). **2017**

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BLUEISLANDS Monitoring Marine Litter

Hypothesis: marine litter on beaches of Mediterranean islands is increasing seasonally due to the increase of visitors during the high touristic season.

→ **3 beaches** x **8 islands** (highly touristic – used by locals – remote)

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Monitoring Marine Litter Touristic beach

Monitoring Marine Litter Beach used by locals

Monitoring Marine Litter Remote beach

BLUEISLANDS Monitoring Marine Litter

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→ **3 beaches** x **8 islands** (highly touristic – used by locals – remote)

Method: fixed 100m portion of beach is periodically monitored during both low and high touristic seasons. *The OSPAR guideline for monitoring marine litter on beaches* was adapted to BLUEISLANDS needs (inclusion of the microplastics (<5mm))

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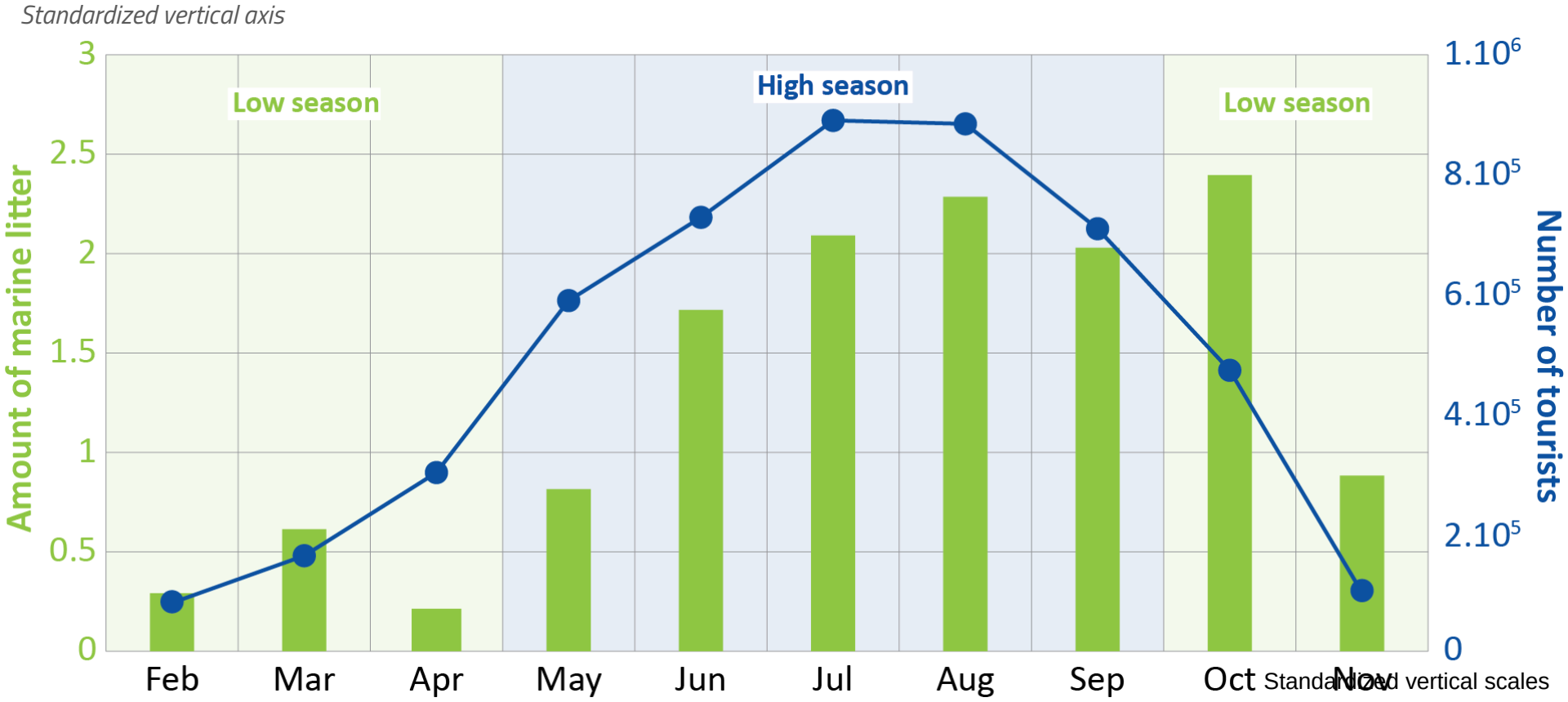
BLUEISLANDS Monitoring Marine Litter – Overview

147 surveys on 100m of beach

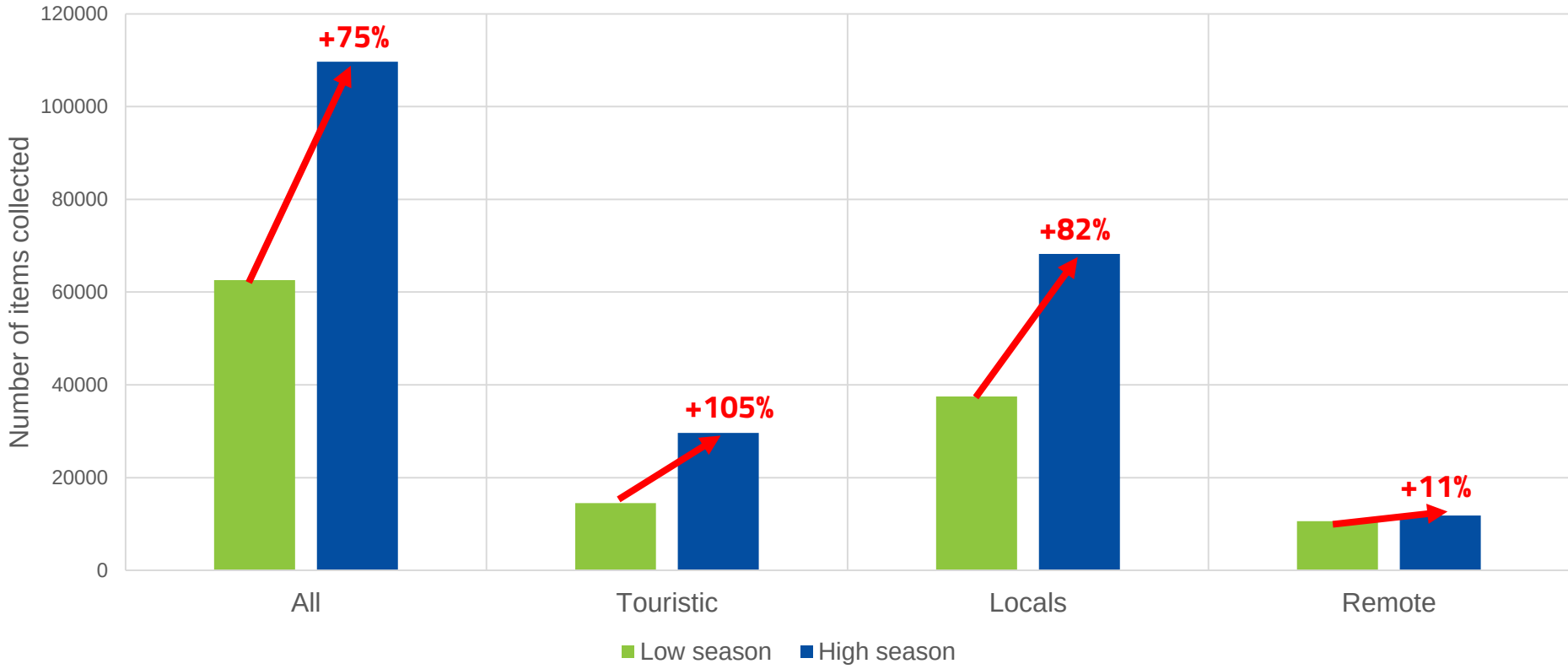
24 beaches monitored from February 2017 to November 2017

172 255 items collected (**64%** during high touristic season, **1200** items per survey)

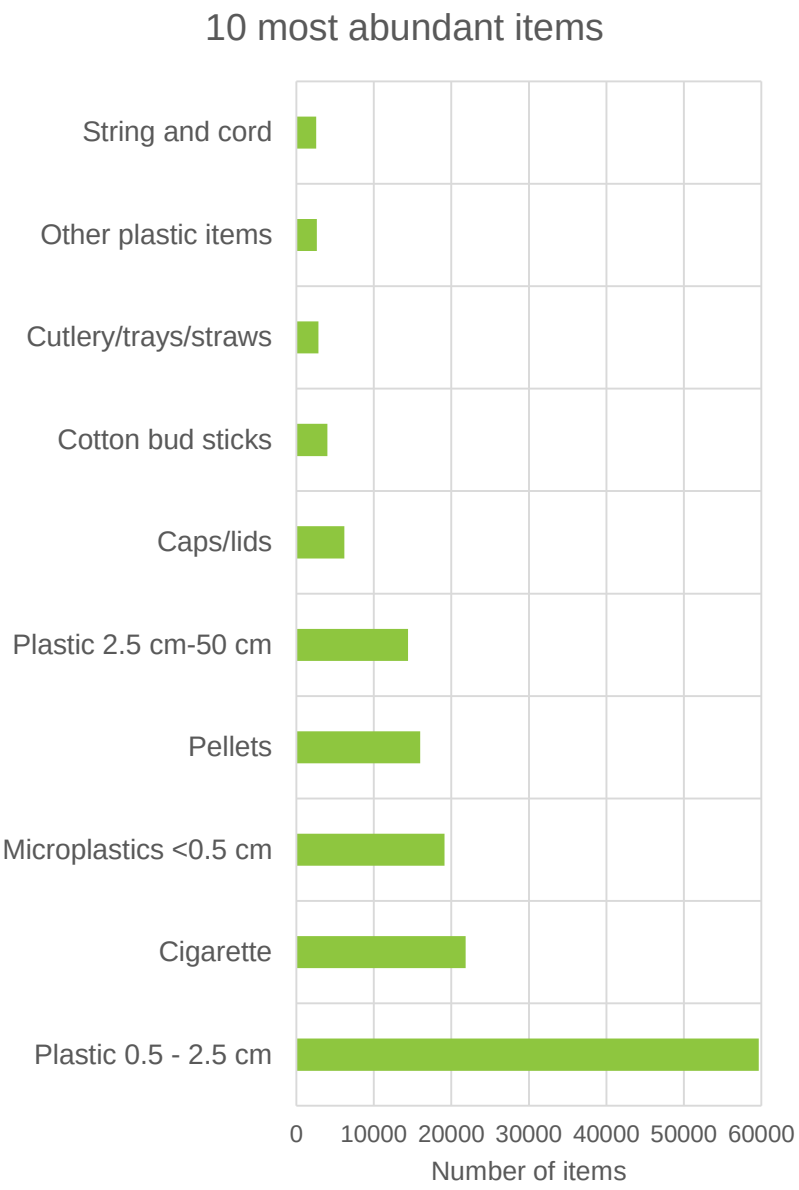


BLUEISLANDS Monitoring Marine Litter – Overview

Average increase of **75%** in summer (**11% - 105%** depending the type of beach)
Beaches used by locals more impacted (**61%** of the total), followed by the touristic beaches (**26%** of the total) and the remote beaches (**13%** of the total)



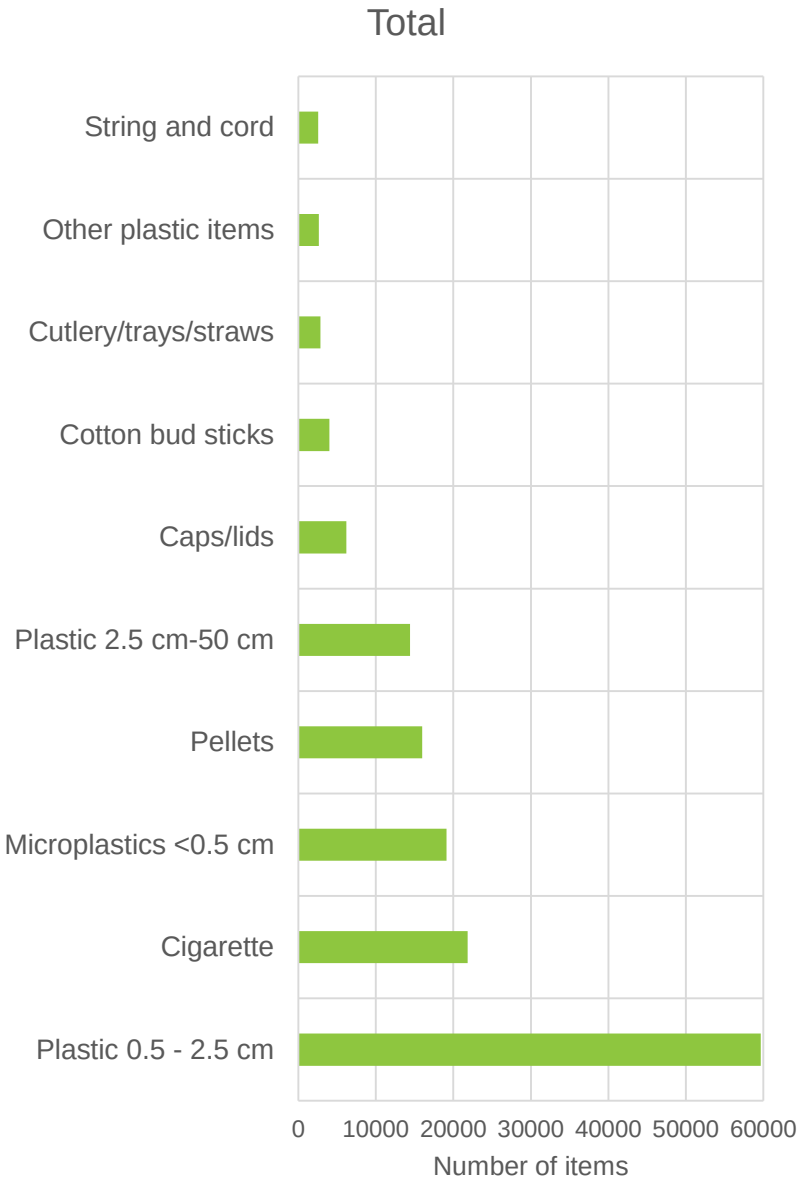
BLUEISLANDS Monitoring Marine Litter – Overview

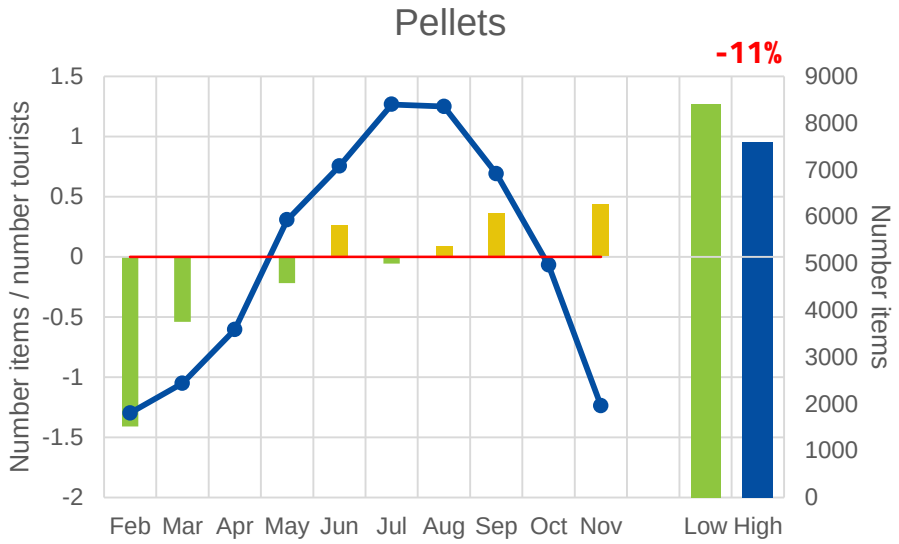


→ 87% of ML

Standardized vertical scales

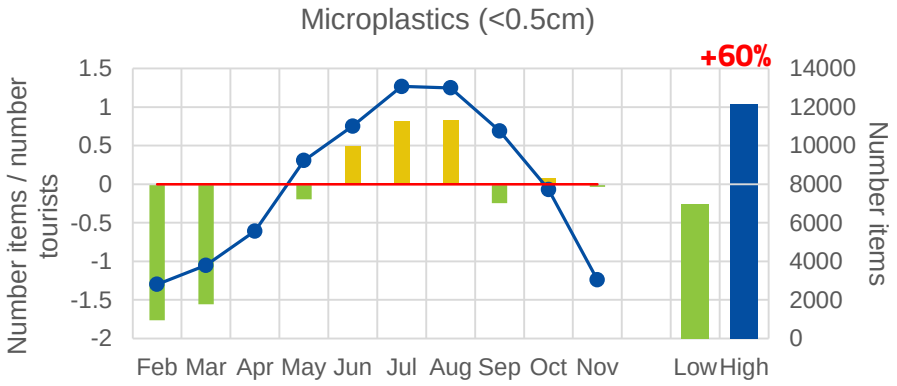
BLUEISLANDS Monitoring Marine Litter – Overview



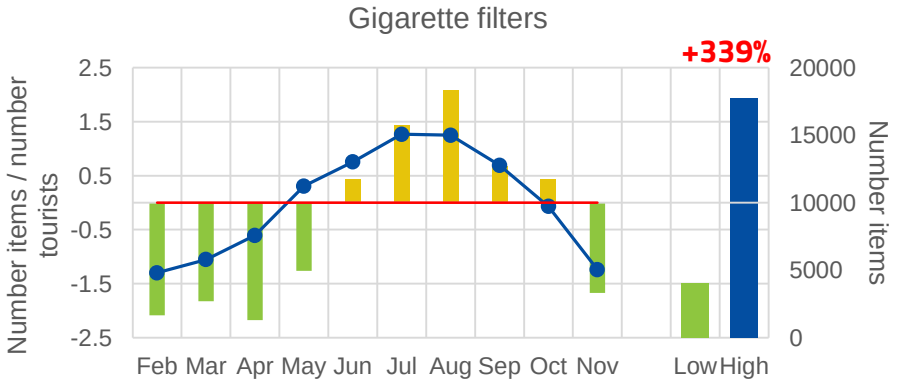


→ 9% of ML

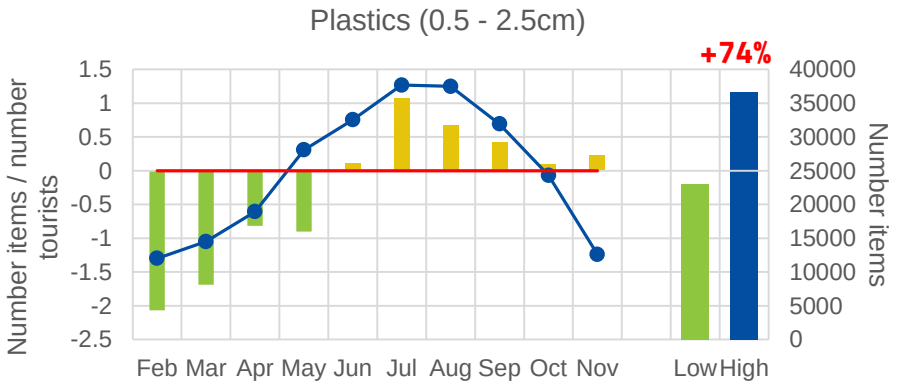
BLUEISLANDS Monitoring Marine Litter – Overview



→ 11% of ML



→ 13% of ML



→ 35% of ML

Take-home messages:

Increase of the marine litter during the high touristic season in the 3 different types of beach

Beaches used by locals are more affected

Pieces of plastic <2,5 cm and microplastics show a seasonal increase

Thanks

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