CONSOLIDATING KNOWLEDGE FROM MIO-ECSDE ACTIONS ON THE SCIENCE-POLICY-SOCIETY INTERFACE

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HOW TO MONITOR MARINE LITTER?

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MARINE LITTER MONITORING & MIO-ECSDE ACTIONS ON THE SCIENCE-POLICY-SOCIETY INTERFACE

- Interreg Med ACT4LITTER (2017-2018)
- EU SWIM-H2020 SM (2017-2019)
- IPA-Adriatic DeFishGear (2013-2016)
- EEA Marine Litter Watch Month (2016)
- FP7 MARLISCO (2012-2015)

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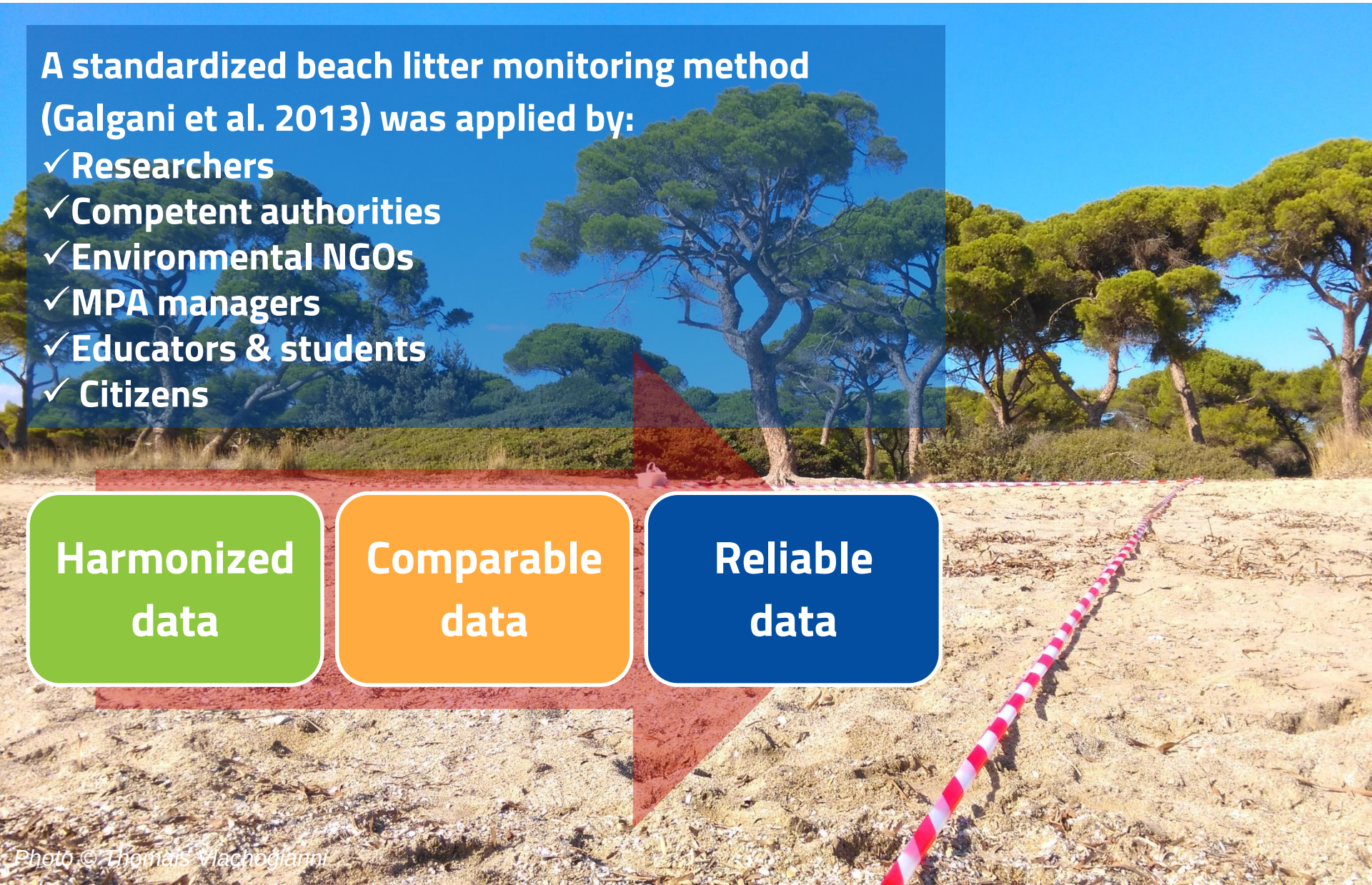
ASSESSING MARINE LITTER ON BEACHES THROUGH A STANDARDIZED METHODOLOGY



A standardized beach litter monitoring method (Galgani et al. 2013) was applied by:

- ✓Researchers
- ✓Competent authorities
- ✓Environmental NGOs
- ✓MPA managers
- ✓Educators & students
- ✓ Citizens

Harmonized data

Comparable data

Reliable data

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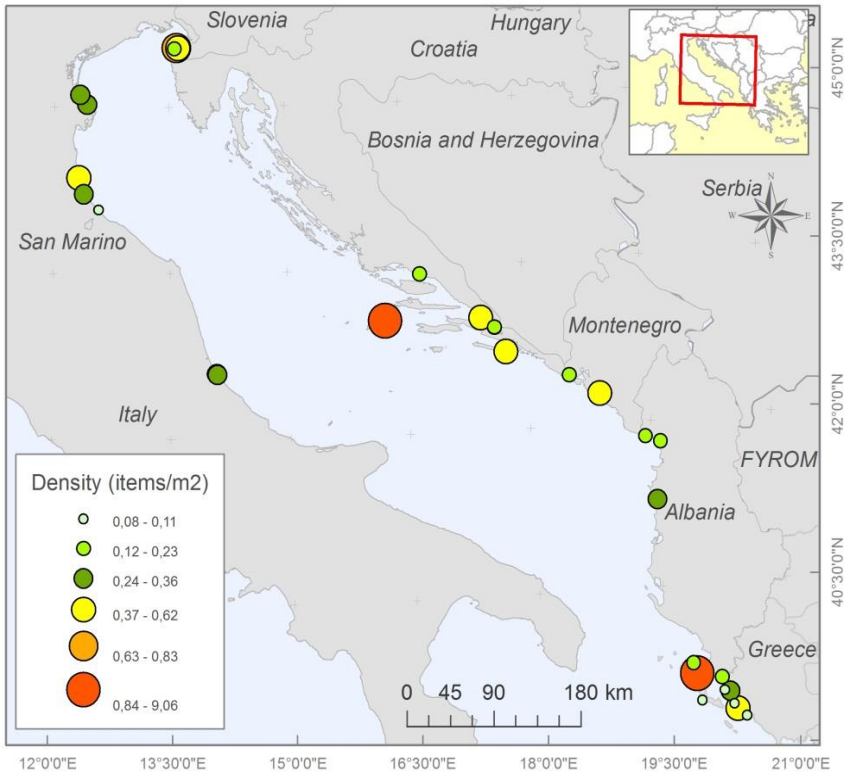
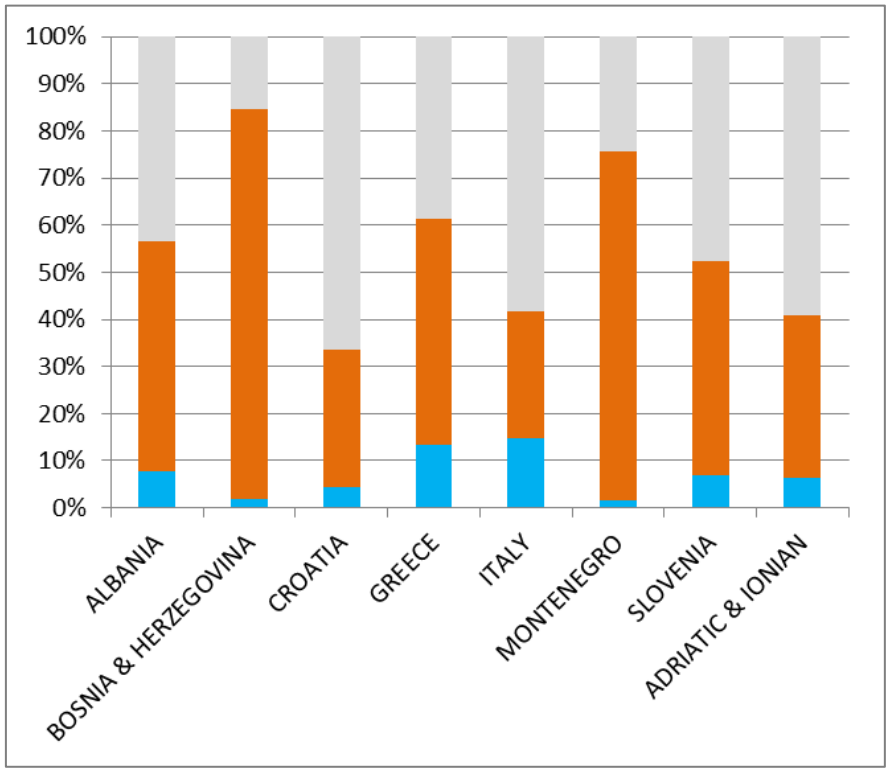
INDICATIVE RESULTS (DeFishGear)





- ✓ **31 study sites** located on the coastline of the Adriatic and Ionian Seas
- ✓ **180 beach transects** were surveyed, covering ~ **33,200 m²** and extending over **18 km** of coastline
- ✓ Average beach litter density: **0.67 items/m²**

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INDICATIVE RESULTS (DeFishGear)

TOP 20	Code	Items name	Total counts	%
1	G79	Plastic pieces 2.5 cm > < 50 cm	14,040	19.89
2	G82	Polystyrene pieces 2.5 cm > < 50 cm	8,422	11.93
3	G95	Cotton bud sticks	6,475	9.17
4	G21	Plastic caps/lids from drinks	4,705	6.67
5	G27	Cigarette butts and filters	4,660	6.60
6	G23	Plastic caps/lids unidentified	1,743	2.47
7	G45	Mussel nets, Oyster nets	1,716	2.43
8	G30	Crisps packets/sweets wrappers	1,492	2.11
9	G208	Glass or ceramic fragments >2.5 cm	1,368	1.94
10	G124	Other plastic/polystyrene items (identifiable)	1,350	1.91
11	G67	Sheets, industrial packaging, plastic sheeting	1,336	1.89
12	G10	Food containers incl. fast food containers	1,332	1.89
13	G35	Straws and stirrers	1,273	1.80
14	G33	Cups and cup lids	1,161	1.65
15	G22	Plastic caps/lids from chemicals, detergents	1,058	1.50
16	G3	Shopping bags, incl. pieces	974	1.38
17	G7	Drink bottles <=0.5 l	872	1.24
18	G8	Drink bottles >0.5 l	794	1.13
19	G24	Plastic rings from bottle caps/lids	770	1.09
20	G50	String and cord (diameter less than 1 cm)	748	1.06

INDICATIVE RESULTS (ACT4LITTER)

	Code	Items name	Percentage
1	G79	Plastic pieces 2.5 cm > < 50cm	17.3
2	G82	Polystyrene pieces 2.5 cm > < 50cm	5.9
3	G23	Plastic caps/lids unidentified	5.6
4	G45	Mussels nets, Oyster nets	5.6
5	G124	Other plastic/polystyrene items (identifiable)	5.3
6	G8	Drink bottles >0.5l	4.4
7	G210	Other glass items	3.8
8	G7	Drink bottles <=0.5l	3.4
9	G21	Plastic caps/lids from drinks	3.3
10	G171	Other wood < 50 cm	3.3
11	G80	Plastic pieces > 50 cm	3.0
12	G24	Plastic rings from bottle caps/lids	2.6
13	G73	Foam sponge	2.2
14	G22	Plastic caps/lids from chemicals, detergents (non-food)	2.2
15	G3	Shopping bags, incl. pieces	1.9
16	G27	Cigarette butts and filters	1.9
17	G50	String and cord (diameter less than 1cm)	1.5
18	G63	Buoys	1.5
19	G165	Ice-cream sticks, chip forks, chopsticks, toothpicks	1.4
20	G200	Bottles, including pieces	1.4

A total of **22,867 marine litter items** were recorded at **20 coastal and marine protected areas** located in **Albania, France, Greece, Italy, Spain and Turkey**. The average litter density of **1.2 items/m^2** found within this study is considered to be relatively high.

LESSONS LEARNT

- The application of the **beach litter monitoring protocol** is **not demanding** when it comes to resources. Some 4-6 man-days per year are needed for monitoring one location.
- The use of the '**Master List of Categories of Litter Items**' is instrumental in terms of detecting the sources of litter and is rather easy to use.
- Assessing the relative importance of the different **sources** of litter **is difficult** given that a considerable percentage of litter items cannot be attributed to any specific category of source.
- The **sources attribution method** a good overall basis for detecting the major marine litter sources and feed into the management process.
- It is of crucial importance to setup **long-term marine litter monitoring programs** that will ensure the detection of marine litter seasonal variations and respective trends.

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MORE INFO...

- Marine Litter Assessment in the Adriatic and Ionian Seas
- Methodology for monitoring marine litter on beaches (macro debris >2.5 cm)
- E-learning module on monitoring marine litter on beaches
- Video-guidelines on monitoring marine litter on beaches

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Stopping Marine Litter TOGETHER!

Thank for your attention!

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For more than twenty years
joining forces & building bridges
in the Euro-Mediterranean area

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