

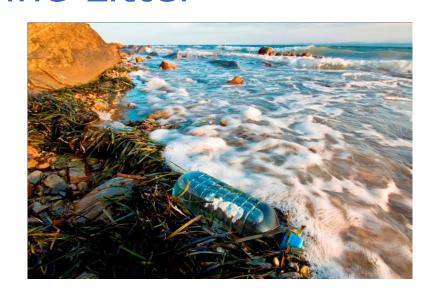
Marine Litter – towards harmonized monitoring and assessment MSFD GES TSG Marine Litter

Marine Litter Conference, Berlin

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MSFD Descriptor 10

"Properties and quantities of marine litter do not cause harm to the coastal and marine environment."





Monitoring Status and Sources

Status: GOOD or NOT GOOD?

Trends: UP or DOWN?

Which are the sources of marine litter and how strong are they?

Need of quantitative data, comparable, quality controlled and with known uncertainty!





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Science based monitoring of marine litter and its role in management

- Provide evidence of occurrence and harm
- Permit the calculation of trends
- Allow quantification for single litter categories
- Provide spatial and temporal distribution of litter
- Source identification and quantification



Rio +20 conclusions:

Sta163.

...We further commit to take action to, by 2025, <u>based on collected scientific</u> <u>data</u>, achieve significant reductions in marine debris to prevent harm to the coastal and marine environment.





Monitoring and measures

- Monitoring can direct costly measures and remediation actions
- Support the planning of cost efficient measures
- Control the efficiency of measures

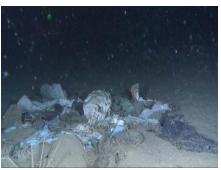




The monitoring matrices

- Beach (seashore)
- Water surface
- Seafloor
- Biota









Different matrices represent different environmental compartments, input and impact pathways



Beyond Europe

- Marine Litter is a cross-border problem
- Assessments need to be comparable
- Close collaboration with Regional Sea Conventions is needed
- Particular need in Seas which have a minority of bordering EU countries (Mediterranean Sea + Black Sea)





New monitoring methodologies

- New technologies provide new options for data aquisition, e.g.:
- Microlitter quantification by FTIR
- Image recognition technology
- Field applications on tablet computers
- GPS georeferencing methods
- Modelling directed monitoring
-

Continued research efforts are needed!



Harmonization for

- Efficiency in method development
- Comparability within Regional Seas
- Comparability of assessments Europewide and beyond
- Trend assessments





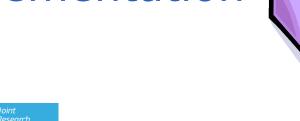
MSFD Good Environmental Status technical subgroup on Marine Litter

- Set-up on request of EU Member States in 2010
- EU Member State delegates (17 MS on board) and scientific experts
- Work through a web-based communication tool + two meetings/year
- Maintaining overview, developing approaches and giving recommendations



Work in 2010/2011

- Identification of available datasets
- Creating toolbox with 15 applicable monitoring/quantification approaches (tools)
- Roadmap for the further MSFD Descriptor 10 implementation





MSFD GES TSG Marine Litter Report

JRC EUR 25009



Marine Litter Technical Recommendations for the Implementation of MSFD Requirements

MSFD GES Technical Subgroup on Marine Litter



EUR 25009 EN - 2011







Work in 2012/2013

- Closing identified gaps by development of monitoring protocols
- Sources and harm
- Planning way forward on MSFD WFD





Development of monitoring protocols Protocols are based on existing approaches (no re-inventing of wheels):

- Adjusting to MSFD indicator needs
- Harmonizing if different approaches are in parallel use
- Harmonization of litter categories
- Supporting the practical implementation of the protocols in EU (considering costs)

Joint Research Centre



Protocols in preparation

- Beach litter: Minor adjustments to UNEP based protocol
- Floating macro litter: New visual observation protocol based on different previous approaches
- Seafloor litter (shallow + deep): New protocol for shallow water surveys, harmonization of trawling protocols, new protocol for deep visual surveys

Joint Research Centre



- Litter in biota (seabirds and turtles):
 Adjusting Fulmar protocol for other seabirds, new protocol for turtles
- Microlitter: New protocol for beach meso/micro litter, protocols for microlitter sampling and quantification

Feasibility studies for litter in bird nesting, ingestion by fish, etc.

Finalization by mid 2013





Further work items 2013/2014

- Sources identification, budgeting, fluxes
- Riverine litter How to quantify?
- Harm How to show evidence, how to quantify?
- TSG progress report is on CIRCABC
- Next meeting of MSFD GES TSG on
- 14.-16.5.2013, Hamburg



Many thanks to all Members of the MSFD GES TS Group Marine Litter!

Looking forward to the continuation of the fruitful collaboration against marine litter!





