

Open session

Marine litter and the role of fisheries surveys: current practices and new ideas for marine litter monitoring?

Conveners: Thomas Maes (UK), Thomas Therriault (Canada)

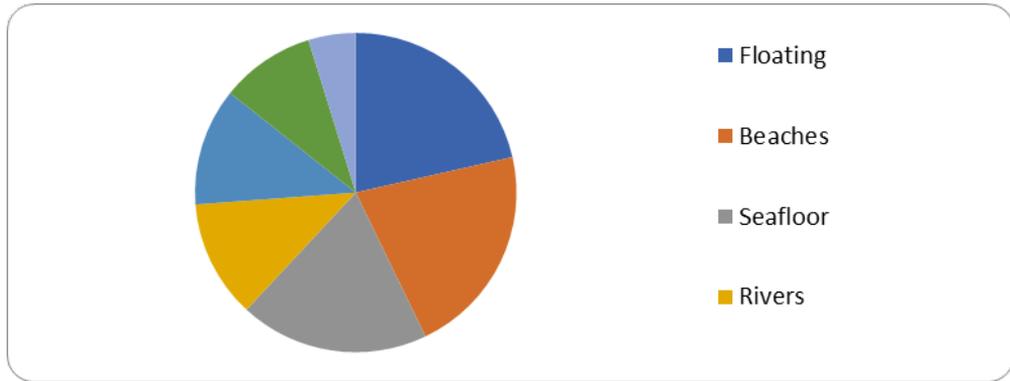
The session was attended by 17-25 people with a general background in marine sciences. An introductory presentation was given by Thomas Maes (CEFAS), showcasing several examples of opportunistic marine litter monitoring, already taking place in combination with existing monitoring:

- Beach Litter Monitoring – Beach Cleans (OSPAR)
- Floating Litter Monitoring – Marine Mammal Observations (TIHO)
- Plastic Ingestion - Fish Stomach Records (DAPSTOM)
- Seafloor Litter Monitoring – Fish Stock Surveys (IBTS)
- Microplastic abundance – Continuous Plankton Recorder (SAFHOS)
- Microplastic Concentrations – Fish Stock Surveys (CEFAS)
- Microplastic Sediment – Hazardous Substances Monitoring (CEFAS)
- ...

After the presentation, an interactive session was launched to capture current and new ideas of the audience, three questions were asked, followed by a discussion to obtain more in-depth information:

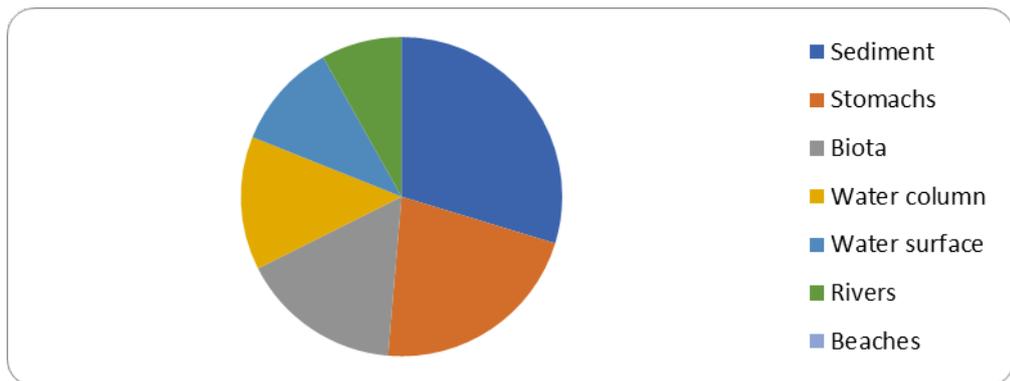
1. What is your preferred matrix to monitor MACRO litter? e.g. seafloor, beaches, floating, rivers,...

#	MATRIX	PRO	CONTRA
1	Floating	9	0
2	Beaches	9	0
3	Seafloor	8	0
4	Rivers	5	0
5	Water column	5	0
6	Beaches water column rivers seafloor	4	0
7	Aerial	2	4



2. What is your preferred matrix to monitor MICRO litter? e.g. sediment, biota, water, beaches, ...

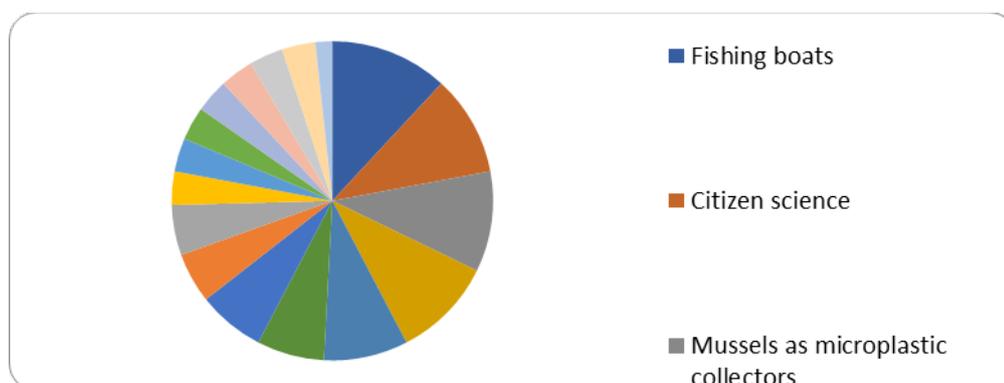
#	MATRIX	PRO	CONTRA
1	Sediment	11	0
2	Stomachs	8	0
3	Biota	6	0
4	Water column	5	0
5	Water surface	4	0
6	Rivers	3	1
7	Beaches	0	0



3. Novel ways for opportunistic marine litter monitoring?

#	MATRIX	PRO	CONTRA
1	Fishing boats	7	0
2	Citizen science	6	0
3	Mussels as microplastic collectors	6	0

4	Sediment traps	6	0
5	Commercial vessels- ship of opportunity	5	0
6	Monitor discarding behaviours	4	1
7	ROV and AUV	4	0
8	Optical plankton counter?	3	0
9	Drones	3	1
10	Ferry box?	2	0
11	James Bond Lotus Esprit	2	0
12	Why jump on bandwagon other surveys: if plastic is important then dedicated surveys	2	1
13	Underwater cable surveys	2	0
14	Mores source monitoring	2	0
15	Surfers	2	0
16	Dustbins of ships at sea	2	0
17	Cargo loss	1	0



The session was concluded with a discussion on the need and potential terms of reference (ToR) of a future Working Group on Marine Litter. The following potential ToR were discussed:

- Distribution of marine litter
- Beach
- Floating/watercolumn
- Seafloor
- Microplastics (Sediment/Water/Biota)

- Impacts of marine litter
- Risk Assessments
- Statistical Analysis
- Modelling
- Measure Development

Although the ToRs were generally accepted, some members of the audience suggested to lower the amount of terms and focus on the most urgent ones to streamline the process and guarantee delivery of all objectives. Several ICES Expert Groups and other international expert groups are also working on marine litter and thus it will be important to set up communication streams between them to lower their individual burden and avoid duplication. The strength and emphasis of an ICES working group should be science and this must be considered when defining the ToRs. The new working group should act as an umbrella were different ICES workstreams on marine litter can be collated and revised in the light of necessary advice requests. Due to the transboundary issue of marine litter and the interest in both ICES and PICES, it became clear that there is a joint interest <http://www.dmi.dk/nyheder/arkiv/nyheder-2017/oktober/foerste-nattefrost-ramte-paa-klokkeslaet/t> to work together.