



MARLICE 2022

II International Forum on Marine
Litter and Circular Economy



MARLICE 2022. SUMMARY OF SESSIONS

CITIZEN SCIENCE AND MICROPLASTICS




MARLICE 2022
II International Forum on
Marine Litter and Circular Economy
Seville 18 – 20 May



**2021
2030** United Nations Decade
of Ocean Science
for Sustainable Development

CITIZEN SCIENCE AND MICROPLASTICS

 AQUARIUM OF SEVILLE - MEDITERRANEO ROOM

 18/05/2022  11:30-13:00

Chairperson: David León (HyT - Projects Coordinator) / María Cabrera (Paisaje Limpio - Responsible for Communication)

DESCRIPTION


Citizen science is not only environmental education or volunteer activities, but a very powerful tool if coordinated correctly. A showcase of ongoing actions related to citizen science for microplastic monitoring was presented to stimulate debate on the heterogeneity of protocols in different natural environments and ecosystems, how NGOs should coordinate their actions and cooperate to achieve open data management and the reuse of data collected.

A total of 78 people from 8 countries participated in the session, including environmental managers and technicians from different regions, researchers, NGOs and private entities related to conservation.



CHAIRPERSON

PhD. David León

 Hombre y Territorio

 Projects Coordinator



Ms María Cabrera Fernández

 Paisaje Limpio

 Responsible for Communication



SECRETARY

PhD. Estibaliz López-Samaniego

 Asociación Vertidos Cero

 Project Management



PROGRAMME

(See the available presentations of this session by clickyng on the presentation title)

11:30-11:35 h - Welcome and presentation of session objectives

David León - Project coordinator (HyT Asociation)
María Cabrera - Project coordinator (Paisaje Limpio)

Part 1. Citizen science, challenges and inspiring actions.

11:35 - 11:45 h - The collaboration between academia and environmental organizations in the study of microplastics

Alicia Mateos Cárdenas - Postdoctoral Researcher-University of Cork

11:45 - 11:50 h - Technical studies of microplastics. Challenges of participation in large rivers

María Plaza - Technician of the Center for the Study of Ports and Coasts of CEDEX

11:50 - 11:55 h - Application of a protocol for sampling and analysis of microplastics in aquatic systems

David León - Project coordinator - HyT Asociation

11:55 - 12:00 h - Citizen science and environmental awareness in microplastics sampling activities in sea and beach

Sara Lizarza - Responsible for citizen science projects in MATER

SPEAKERS

PhD. Alicia Mateos Cárdenas

University College Cork

Postdoctoral Researcher



Ms. María Plaza Arroyo

CEDEX - Center for Studies of Ports and Coasts

Chemical Researcher



Ms. Sara Lizarza Muñoz

MATER

Responsible for citizen science projects



12:00 - 12:05 h - Surfing for Science, a citizen science project to study microplastic pollution

María Ballesteros - Head of environment and education in Surfrider Spain

Parte 2. Part 2. Identification of strengths and weaknesses in citizen science for the study of microplastics.

12:05 - 12:10 h - Introduction

David León - Project coordinator - HyT Asociación

12:10 - 12:40 h - Discussion tables

Parte 3. Discussion and sharing

12:40 - 12:55 h - resentation of conclusions per table Representatives of the working tables

12:55 - 13:00 h - Conclusions of the session


David León - Project coordinator (HyT Asociación)

María Cabrera - Project coordinator (Paisaje Limpio)

SPEAKERS

Ms. María Ballesteros Rivas

 Surfrider Spain

 Environment and Education officer



Key message

1. Know and identify different areas where citizen science can effectively get involved in microplastic studies.
2. Output of main requirements to integrate participation.
3. Obtaining general criteria at different levels to ensure the correct application of citizen science principles.



Short list of the main topics discussed

These were the four main topics discussed in the session. A total of 7 groups of 8-10 people each was generated. Each group debated for 40 minutes on the aforementioned topics and subsequently all results were summarised in a single document

- How can citizen science be best applied in relation to microplastics?
- Would some kind of prior information/training of the participants for data collection be necessary? In what format?
- In what kind of studies or environments could citizen science be opened up through participation?
- What would be the minimum criteria to validate that methodology is carried out correctly?

Conclusions

- Citizen science in Spain is still not well established in relation to microplastic studies and projects.
- The creation of heterogeneous working groups is necessary in order to connect different sectors, forming a forum or similar.
- Specific and consensual protocols are necessary for each category of compartment /ecosystem.
- One of the most important conclusions was the essential role of research entities in the process (training, protocol, support, validation of data).
- The generation of databases and a data repository (vía website ie) available to everybody would be of great use.

Conclusions (continue)

- Specific and adapted training seems key to achieving successful citizen involvement. Including specific materials, awareness raising, feedback to participants
- Regarding the involvement of society in different types of compartments or ecosystem, most of the working groups rejected the idea of larger rivers (due to risks and necessary equipment), biological, air and WWTP samples. Studies out at sea could be developed if the coordination entity ensures the logistics of participation. Initiatives related to rivers and streams, lakes and reservoirs, coastal environments, beaches, soil, and more could be integrated into a citizen science sampling study.
- An observation mentioned in the session suggested looking for “hot spots” or attractive sites to involve the general public in sampling activities, in order to catch their attention and generate interest.
- As a general conclusion across all the groups, the creation of a validation process by an experienced entity managers seems to be necessary. This can be achieved through training, field activities and/or the analysis process. Presence of staff from the research/experienced entity is one of the tools recommended, when possible.

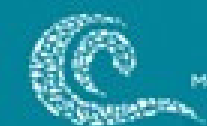


Action items

The session coordinators presented a document outlining the main conclusions to the participants and different suggestions were generated and shared with everyone who participated in the session. Afterwards, in light of the feedback generated, a series of working groups (according to natural environments or ecosystems) was generated in order to further advance the conclusions of the working groups.

HyT announced the generation of a database of microplastic results in close collaboration with Proyecto Libera, connecting different projects and investigations throughout Spain. Collaboration was opened to relevant projects/entities wanting to contribute.





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