

**MICRO 2020**

**FATE AND IMPACT OF MICROPLASTICS:  
KNOWLEDGE AND RESPONSIBILITIES.**

**CONFERENCE PROCEEDINGS**

ISBN 978-84-09-28637-9



# **MICRO2020** **INTERNATIONAL CONFERENCE**

**23-27 NOVEMBER 2020 LANZAROTE AND BEYOND\***



**FATE AND IMPACTS OF MICROPLASTICS: KNOWLEDGE AND RESPONSIBILITIES**



*MICRO\** is a biannual international conference;  
a collaborative process coordinated by the scientific community and stakeholders.

*MICRO 2020* is hosted by the Marine Sciences For Society researchers' network and the World Network of Island and Coastal Biosphere Reserves, under the patronage of UNESCO.

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To correctly cite an abstract in this book:

*AUTHORS (2020). TITLE. In MICRO 2020. Fate and Impact of Microplastics: Knowledge and Responsibilities. 999 pp. MSFS+WNICBR (Eds). ISBN 978-84-09-28637-9. CC-BY-NC-SA, 2021.*

To correctly cite this book:

*MICRO 2020. Fate and Impact of Microplastics: Knowledge and Responsibilities. 999 pp. MSFS+WNICBR (Eds). ISBN 978-84-09-28637-9. CC-BY-NC-SA, 2021.*

**Under COVID-19 conditions, MICRO 2020 was substantially online-based.**

This 3rd edition of MICRO was a chance to contribute to fostering a collaborative effort among our continuously expanding MICRO community.

For this edition, **Local Nodes** played an invaluable role, they included:

**Aalborg, Banyuls, Barcelona, Bastia, Bayreuth, Bouguenais, Boulogne sur mer, Braunschweig, Brussels, Bühl, Copenhagen, Créteil, Crozon, Exeter, Gran Canaria, Guyancourt, Helgoland, Ithaca, La Trinité sur Mer, Lanzarote, Leipzig, Madrid, Mallorca, Marne la Vallée, Mazatlán, Menorca, Oostende, Palavas, Plouzané, Plymouth, Rostock, Siena, Toronto, Trondheim, Urdaibai, Utrecht, Vigo and Wageningen.**

We were more than 2000 authors thankful to be part of such an intense week. Hope the way we supported each other and our pursuits during the conference extends 'MICRO 2020: Lanzarote and Beyond' to 'MICRO 2022: OUTSIDE'

**Authors, Speakers, Chairpersons, Scientific Committee, Technical Crew, Core Group, Nodes and ALL participants:** SUCH A GREAT WEEK, accompanied throughout by Elinor Ostrom, Donella Meadows and Lynn Margulis.

**THANKS Gaia !**

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Microplastic particles in road de-icing salt.....	533
Effects of polyethylene microplastics on benthic invertebrates and ecosystem function in lotic mesocosms.....	534
Investigating the seasonal importance on the composition and concentration of microplastics in coastal seawater, beach sediments and the wild mussel ( <i>Mytilus edulis</i> ).....	535
<b>Session 26.1_Me. Chaired by Mateo Cordier, Guyancourt.....</b>	<b>536</b>
The dietary bioavailability of nanoplastics to salmon using an ex vivo gut sac technique.....	537
Effects of microplastics in marine organic matter production and transformation.....	538
Abundance and microplastics ingestion by commercial shrimp <i>Pleoticus muelleri</i> at an impacted coastal environment (Southwestern Atlantic).....	539
Exposure of <i>Sparus aurata</i> to a microplastic enriched diet under laboratory conditions.....	540
Bioavailability of phenanthrene and pyrene onto microplastics in the aquatic environment and simulated digestive fluids.....	541
<b>Session 26.1_Ma. Chaired by Juan Baztan, Crozon.....</b>	<b>542</b>
Transport of polyamide microplastics at the sediment-water interface – First results from mesocosm studies.....	543
Degradation and half-life of biodegradable plastic films on different marine beach sediments...	544
Abundance and distribution of microplastics in the German bight – Do ships leave skid marks? .....	545
Characterizing microplastics formed from photodegraded plastics placed in simulated moving water conditions.....	546
<b>Session 26.2_O. Chaired by Arnaud Huvet, Plouzané.....</b>	<b>547</b>
Exposure to polyethylene microplastics with or without herbicide significantly affect valve activity and growth of oyster, <i>Crassostrea gigas</i> .....	548
Occurrence of microplastics in pacific oysters from aquaculture areas in Santa Catarina Island, Brazil: preliminary results.....	549
Biodiversity and structure of plastisphere in lentic ecosystems.....	550
A global study reveals rare and unexplored bacteria that are specific to the plastic biofilm and reoccur across habitats.....	551
<b>Session 26.2_Me. Chaired by Eva Cardona, Menorca.....</b>	<b>552</b>
Microplastics budget for Norway’s largest lake utilizing a multidisciplinary approach.....	553
Primary and secondary microplastics in rural and urban beaches in southern Brazil.....	554
The Ocean Race Science: An innovative collaboration between science and extreme offshore sailing.....	555
The amount of plastic in soil from Mausund and Froan Nature reserve, Norway. A comparison with concentrations in laboratory exposure studies.....	556
<b>Session 26.2_Ma. Chaired by Ana Liria, Gran Canaria.....</b>	<b>557</b>

## **Abundance and microplastics ingestion by commercial shrimp *Pleoticus muelleri* at an impacted coastal environment (Southwestern Atlantic)**

Fernandez Melisa, Forero López Ana Deisy, Colombo Carolina Victoria, Arduzzo Maialen, Buzzi Natalia Sol, Rimondino Guido Noe.

Microplastics (particles of size < 5 mm) are recognized as emerging pollutants that have been found in most of the world's aquatic environments. They are of particular concern due to their capability to be ingested, enabling bioaccumulation and/or bio-magnification through marine food webs. Focusing on Argentina's coastal wetlands, the Bahía Blanca Estuary (BBE) is considered one of the most important in this country due to its high economic impact and also for being habitat of important commercial species like macrocrustaceans and fishes. The shrimp *Pleoticus muelleri* is an important economic resource for artisanal fishing and highly consumed in Argentina. For this reason, we investigated the abundance and characteristic of MPs in the abdominal muscle and gastrointestinal tract of the shrimp *P. muelleri*, as well as in the surface waters from the inner zone of BBE. The results showed that the dominant shape of MPs were fibers both in surface waters and shrimps. The fibers' colors were mainly blue and black in surface waters, while in shrimps, they were transparent and black. The mean abundance of MPs in surface water and the shrimp's abdominal tissues were  $31.03 \pm 3.01$  items.L-1 and 3.91 items. g-1 wet weight, respectively. Infrared Spectroscopy suggests that these fibers found in both environmental matrices correspond to semi-synthetic cellulose-based remains, poly(amide), polyethylene (PE), and polypropylene (PP). Therefore, the information of this study generates new knowledge about the materials of the sewage discharges, which should be considered for stakeholders in the management and conservation of this large coastal wetland.

Keywords : estuary , microplastics , seafood , shrimp

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