

59TH



PENICHE, JULY 07-10, 2026

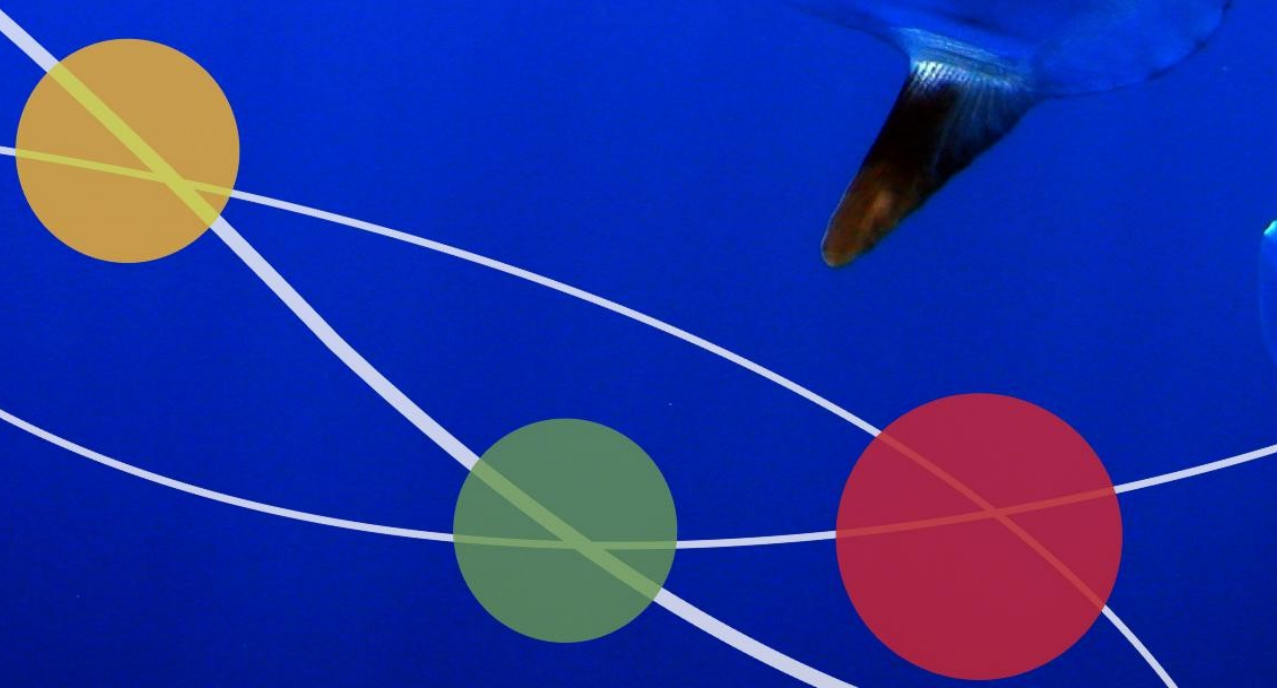
EMBS

EUROPEAN

MARINE BIOLOGY

SYMPOSIUM

Bringing marine biologists
together since 1966



59th European Marine Biology Symposium

Bringing marine biologists together since 1966

7th to 10th July 2026, Peniche, Portugal

Organized by

School of Tourism and Maritime Technology – Polytechnic

University of Leiria

MARE – Marine and Environmental Sciences Centre

ARNET – Aquatic Research Network

EuroMarine – European Marine Research Network Association

Scientific Committee

The 59th EMBS Symposium is proud to present its scientific Committee:

Ana Violante (MARE-IPLeiria/ARNET)
Celso Alves (MARE-IPLeiria/ARNET)
Filipe Costa (CBMA – University of Minho)
Francisco Arenas (CIIMAR – University of Porto)
Gui Menezes (OKEANUS – University of Azores)
Inês F. C. Morão (MARE-IPLeiria/ARNET)
Isabel Sousa Pinto (CIIMAR – University of Porto)
João Canning-Clode (MARE/ARDITI – University of Madeira)
João G. Rodrigues (CIIMAR – University of Porto)
João N. Franco (MARE-IPLeiria/ARNET)
Jorge Gonçalves (CCMAR – University of Algarve)
Laura Martin (INMAR – University of Cadiz)
Maiken Bjørkan (Nordland Research Institute)
Maria J. Campos (MARE-IPLeiria/ARNET)
Maria M. Gil (MARE-IPLeiria/ARNET)
Marta Assunção (CEFAS – United Kingdom)
Nuno Henriques (CCMAR – University of Algarve)
Paulo Maranhão (MARE-IPLeiria/ARNET)
Rui Pedrosa (MARE-IPLeiria/ARNET)
Sara C. Novais (MARE-IPLeiria/ARNET)
Sérgio Leandro (MARE-IPLeiria/ARNET)
Sofia Engrola (CCMAR – University of Algarve)
Sónia Cotrim (MARE-IPLeiria/ARNET)
Susana Loureiro (CESAM – University of Aveiro)
Susana Mendes (MARE-IPLeiria/ARNET)
Susana Silva (MARE-IPLeiria/ARNET)
Teresa Baptista (MARE-IPLeiria/ARNET)
Teresa Mouga (MARE-IPLeiria/ARNET)
Tiago Simões (MARE-IPLeiria/ARNET)
Vera Sequeira (MARE-ULisboa/ARNET)
Vítor Vasconcelos (CIIMAR – University of Porto)

Organising Committee

The 59th EMBS Symposium gladly presents its organising Committee:

Sérgio Leandro, MARE-IPLeiria/ARNET (Chair)

Mark John Costello, EuroMarine Network/EMBS President (Chair)

Maria Jorge Campos, MARE-IPLeiria/ARNET (Chair)

Ana Augusto, MARE-IPLeiria/ARNET

Alice Martins, MARE-IPLeiria/ARNET

Joana Silva, MARE-IPLeiria/ARNET

Celso Alves, MARE-IPLeiria/ARNET

Inês Morão, MARE-IPLeiria/ARNET

Sara Novais, MARE-IPLeiria/ARNET

Susana Mendes, MARE-IPLeiria/ARNET

Carina Félix, MARE-IPLeiria/ARNET

Sónia Barroso, MARE-IPLeiria/ARNET

Filipa Pinto, MARE-IPLeiria/ARNET

Verónica Felício, MARE-IPLeiria/ARNET

Tiago Simões, MARE-IPLeiria/ARNET

Susete Pintéus, MARE-IPLeiria/ARNET

Sílvia Lourenço, MARE-IPLeiria/ARNET

Eirini Apazoglou, EuroMarine Network

Welcome to the 59th EMBS and to Peniche!

It is our great pleasure to welcome you to the 59th European Marine Biology Symposium (EMBS), hosted by the School of Tourism and Maritime Technology of the Polytechnic of Leiria (ESTM-IPLeiria), in partnership with Marine and Environmental Sciences Centre (MARE) and the EuroMarine Network.

For six decades, EMBS has brought together marine scientists from across the world, providing a forum to exchange knowledge, discuss emerging challenges, and build collaborations across disciplines. We are delighted that this tradition continues in Peniche, a city deeply connected to the ocean through its history, culture, fisheries, surfing, and marine research.

This year, we are delighted to welcome approximately 230 participants from 25 countries, reflecting the international and interdisciplinary nature of the EMBS community. The diversity of backgrounds and expertise represented at EMBS reflects the strength of our scientific community and creates an inspiring environment for discussion, collaboration, and innovation.

The scientific programme covers the range of marine biology, from molecular and microbial studies to ecosystems and marine megafauna, encompassing ecology, conservation, oceanography, biotechnology, ecotoxicology, fisheries, and marine management. Alongside outstanding keynote lectures, oral and poster presentations, workshops, and networking opportunities, we hope the symposium will encourage new ideas, new partnerships, and lasting collaborations.

Beyond the scientific programme, we invite you to discover Peniche and its remarkable coastal environment. We hope you will have the opportunity to experience its rich maritime heritage, exceptional biodiversity, renowned seafood, and the unique landscapes of the Berlengas UNESCO Biosphere Reserve.

We sincerely thank all participants, keynote speakers, session conveners, reviewers, sponsors, institutional partners, volunteers, and members of the organising committee whose commitment has made this symposium possible.

We wish you an enjoyable, inspiring, and memorable 59th EMBS 2026.

Warm regards,

Sérgio Leandro, PhD

Director, School of Tourism and Maritime Technology - Polytechnic University of Leiria

Maria Jorge Campos, PhD

Coordinator of MARE – Polytechnic University of Leiria

Mark Costello, PhD

Director, EuroMarine Network

Response of Portuguese oyster *Crassostrea angulata* to variations in environmental conditions (S2-PC-07)

Joana P. C. Cruz^{1,*}, Sara Cabral¹, Frederico Carvalho¹, Joshua Heumüller¹, Ana Amorim^{1,2}, Paula Chainho¹, Ana C. Brito^{1,2}

¹MARE – Marine and Environmental Sciences Centre/ ARNET — Rede de Investigação Aquática, Faculdade de Ciências, Universidade de Lisboa

²DBio – Departamento de Biologia, Faculdade de Ciências da Universidade de Lisboa

*jpcruz@ciencias.ulisboa.pt

Due to climate change global ocean temperatures are expected to rise, leading to changes in salinity and alterations in the timing and magnitude of phytoplankton blooms. Estuaries are among the most vulnerable systems to these changes. In the Sado estuary, oyster aquaculture represents an important socio-economic activity, hence it is key to understand how climate change may affect oyster production. The objective of this study is to understand how alterations in physicochemical (salinity and temperature) and biological parameters (phytoplankton blooms) will affect the behavior of the Portuguese oyster, *Crassostrea angulata*. To this end, extreme water temperature (increase of 5°C up to 30°C, over 17 hours and maintained for 6 hours) and salinity (increase of 12 PSU over 1.5 hours up to 45 PSU and maintained for 4.5 hours) conditions were simulated. In addition, oysters were also exposed to blooms of *Gymnodinium catenatum* (toxic dinoflagellate, the main source of PSP toxin (paralytic shellfish poisoning) on the Portuguese coast) and *Skeletonema marinoi* (non-toxic diatom, isolated from the Sado estuary) for 2.5 hours. Behavior was evaluated through the analysis of valve opening and closing using electromagnetic sensors. Increased temperature did not alter the closing pattern of the oysters. After 2-3 hours under elevated salinity levels, the oysters closed their valves until the end of the experiment. On the other hand, when exposed to phytoplankton blooms, oysters remained open throughout the experiment. These results suggest that oysters may be resilient to warming events and phytoplankton blooms, while actively avoiding hypersaline water conditions.

Benthic Ecosystems as Reservoirs of Plastic-Associated Bacteria: A Culture-Based Study from the Maldives (S2-PC-08)

Vittoria Dias^{1,2,*}, Carmen Rizzo^{3,4}, Teresa Romeo^{5,6}

¹Earth and Environmental Science Department, University of Milano Bicocca, 20126, Milano, Italy

²Sicily Marine Centre, Contrada Porticatello, 29, 98167, Messina, Italy

³Department of Ecosustainable Marine Biotechnology, Stazione Zoologica Anton Dohrn, Sicily Marine Centre, Contrada Porticatello, 29, 98167, Messina, Italy

⁴Institute of Polar Sciences, National Research Council (CNR-ISP), 98122 Messina, Italy

⁵Department of Biology and Evolution of Marine Organism, Stazione Zoologica Anton Dohrn, Sicily Marine Centre, Contrada Porticatello, 29, 98167, Messina, Italy

⁶National Institute for Environmental Protection and Research, 98057 Milazzo, Italy.

*vittoria.dias@szn.it

Plastic pollution represents a major threat to marine ecosystems, particularly in biodiversity hotspots such as the Maldives, where coral reefs and seagrass meadows sustain essential ecological functions. Filter-feeding and sessile organisms, including sponges, ascidians and soft corals, are particularly exposed to suspended particles and may act as biological concentrators of microplastics, promoting the establishment of specialized microbial communities associated with plastic particles within host tissues. This study explores benthic invertebrates (i.e. ascidians, sponges and soft corals) and surrounding sediments from Faafu Atoll (Maldives) as potential sources of bacteria with plastic-related functional traits. Sampling was conducted at two sites characterized by contrasting levels of anthropogenic influence to assess how environmental pressure may shape the occurrence of plastic-associated microbiota. A culture-dependent approach was employed to isolate bacteria from both environmental matrices and host-associated microbiomes through direct isolation and enrichment cultures. Samples (sediment elutriates and animal homogenates) were directly seeded on Marine agar and on a minimal medium supplemented with 1% (w/v) polyethylene (PE) powder as the sole carbon source, and incubated at 30 °C for 10 days. In parallel, enrichment cultures were prepared by incubating sediment and biological materials in minimal medium amended with 1% (w/v) PE powder at 30 °C for 30 days under constant agitation, and subsequently plated on Marine Agar and minimal medium containing PE, under the same condition as direct isolation. Bacterial isolates were screened for traits relevant to marine bioremediation, including tolerance to heavy metals and ability to grow in the presence of hydrocarbon-like substances, as well as potential involvement in plastic degradation processes, particularly relevant in marine environments where plastics co-occur with other pollutants. Notably, growth observed on minimal media supplemented with plastic suggests the presence of microbial communities adapted to colonise or potentially degrade plastic materials. Our findings support the hypothesis that benthic ecosystems can host microbial communities involved in plastic-related processes, serving as ecological hotspots and potential sources of novel microbial resources for sustainable bioremediation strategies.

First evidence of anthropogenic particles (APs) in longnose skate (*Dipturus oxyrinchus*) in the Southern Sicily (S2-PC-09)

Francesca Fabrizi^{1,2,*}, Monique Mancuso^{2,3}, Gioacchino Bono^{4,5}, Polina Rusanova^{4,6}, Ilaria Guardamagna^{2,7,8}, Chiara Anastasia Bruno², Giovanna D'Angelo⁹, Teresa Bottari^{2,3}

59TH



PENICHE, JULY 07-10, 2026

EMBS

E U R O P E A N

M A R I N E B I O L O G Y

S Y M P O S I U M



POLITÉCNICO
DE LEIRIA

ESCOLA SUPERIOR
DE TURISMO E
TECNOLOGIA DO MAR

