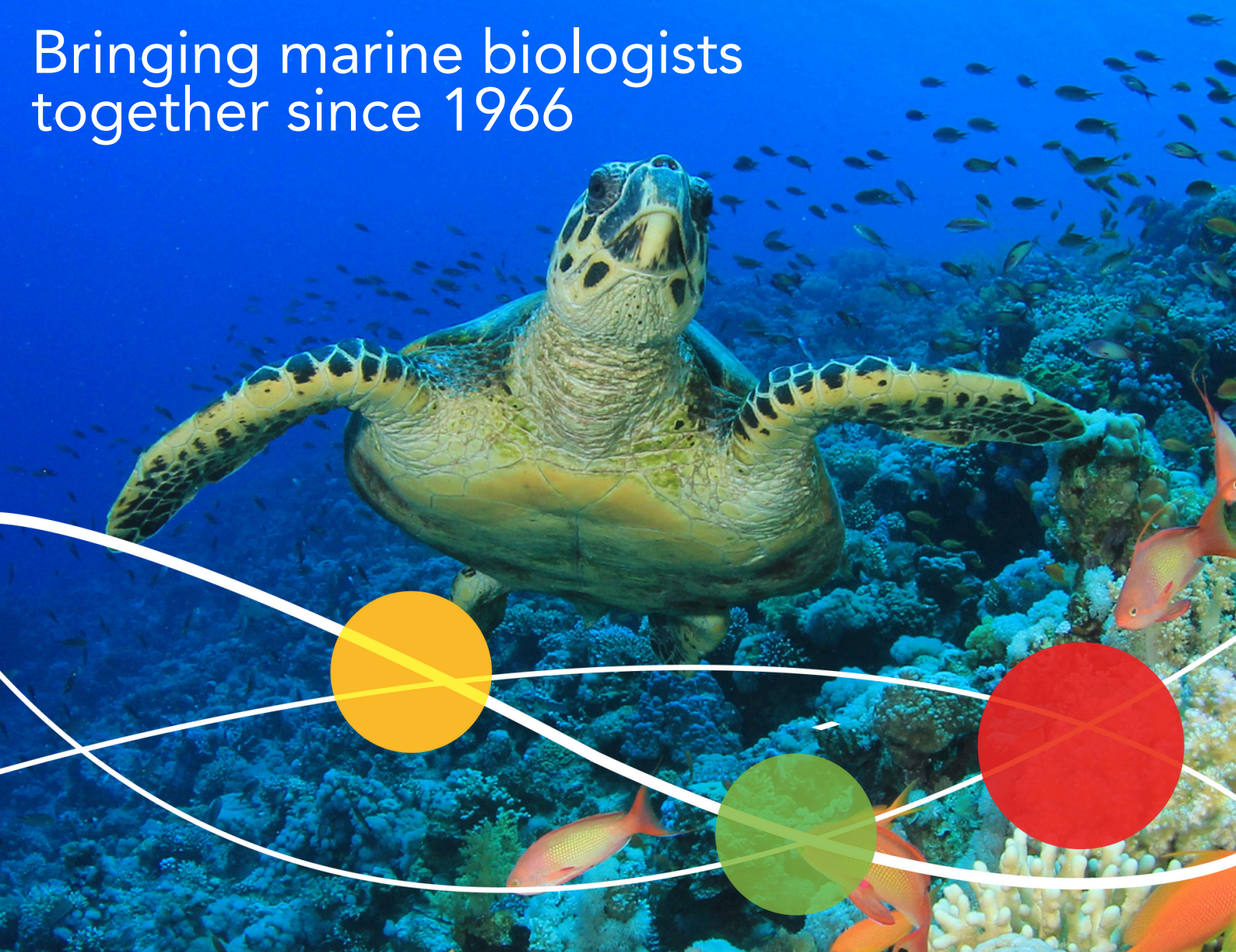


EMBS
EUROPEAN
MARINE BIOLOGY
SYMPOSIUM

EMBS SYMPOSIUM

Bringing marine biologists
together since 1966





EMBS EUROPEAN MARINE BIOLOGY SYMPOSIUM

Programme

6th July 2025

12:00-13:00 Arrival & Registration of participants

13:00-13:30 **Opening Ceremony**

Jarle Jørgensen, Director of the Faculty of Biosciences and Aquaculture, Nord University

Mark Costello, 58th EMBS Convenor and EMBS President

13:30-14:10 **Daniel Pauly**

The Gill-Oxygen Limitation Theory (GOLT): principle and recent developments

14:10-14:20 1 **Filippomaria Cassarino**

How do warming and fishing affect fish communities' functional diversity

14:20-14:30 2 **Chhaya Chaudhary**

Life-cycle bottlenecks shape global marine biodiversity shifts under climate warming

14:30-14:40 3 **Giovanna Guadagnin**

Climatic cues and coastal crabs: adapting to a changing world

14:40-14:50 4 **Inge van der Knaap**

Small and large-scale fish migration along the southern Norwegian coast in relation to marine spatial planning and development

14:50-15:00 5 **Silas Principe**

Predicting marine species distribution in Europe to support conservation targets

15:00-15:10 6 **Jan Phillipp Geißel**

Larval phenology and thermal tolerance as predictor of range expansions

15:10- 15:20 **Questions and Answers**

15:20-16:00 **Afternoon Break**

Session Chair: Simonetta Fraschetti

- 16:00-16:10 **7 Osvaldo Tascón**
How do thermal variability and nutrient availability shape phytoplankton communities?
- 16:10-16:20 **8 Anna Ikonen**
Shifting fatty acid profiles of diatoms adapting to progressing warming
- 16:20-16:30 **9 Alexandra Hahn**
Transcriptomic and physiological evidence of local adaptation in a Baltic copepod
- 16:30-16:40 **10 Jonathan Tempesti**
Fouling and non-indigenous species in Western Mediterranean ports: patterns and drivers
- 16:40-16:50 **11 Norman Göbeler**
Hotfloor: A novel heating system to investigate the effect of heatwaves on benthic ecosystems
- 16:50-17:00 **12 Marco Anglano**
Seasonal cycle of mesozooplankton communities in two coastal sites with different depth in Tenerife, Canary Islands
- 17:00- 17:10 **Questions and Answers**

17:10-19:00 **Welcome reception**

19:00-20:30 **Screening of "Ocean with David Attenborough"**

7th July 2025

08:30 - 09:00 Registration opens

09:00 - 09:40 **Nuria Teixido**
Resilience of coastal benthic biodiversity under global environmental change

Session Chair: Stelios Katsanevakis

Session Chair: Lauriane Ribas-Deulofeu

- 09:40- 09:50 **13.1 David Gillett**
Changes in infaunal macrobenthos of the Southern California continental margin over five decades
- 09:50- 10:00 **14.1 Arianna Pansini**
Cymodocea nodosa can take advantage of predicted acidification
- 10:00- 10:10 **15.1 Camilla Della Torre**
Tolerance to ocean acidification in the limpet *Patella caerulea* from CO₂ vents of Ischia
- 10:10- 10:20 **16.1 Marco Munari**
Acidification effects on contaminants & One Health risks at volcanic CO₂ vents
- 10:20-10:30 **Questions and Answers**
- 13.2 Ovidiu Popa**
AI on Deck: Enhancing Ocean Observations through high-resolution zooplankton analysis
- 14.2 Inga Kirstein**
Plankton communities today & tomorrow – global change drivers and marine heatwaves in a mesocosm
- 15.2 Sünnje Linnéa Basedow**
The impact of advection on a subarctic fjord food web dominated by the copepod *Calanus finmarchicus*
- 16.2 Ellen Oldenburg**
Beyond blooms: winter ecosystem reset determines microbial community dynamics

Session Chair: Barbara Horta e Costa

Session Chair: Thanos Dailianis

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|-------------|---|---|
| 11:00-11:10 | 17.1 Natalie Vachon Spatial variation in carbon source use and functional diversity around Qikiqtait, Nunavut | 17.2 Henriette Horn Evaluating plankton diversity with a new Atlantic-wide database: the Benguela case study |
| 11:10-11:20 | 18.1 Tiziana Durazzano Depth-distributed zooplankton functional diversity related to vertical carbon export in the Central Arctic Ocean | 18.2 Florian Lüsrow Pelagic tunicate assemblages along two latitudinal transects across the Sargasso Sea in spring 2023 |
| 11:20-11:30 | 19.1 Janina Pykäri Carbon stocks and diversity in benthic macroinvertebrates across environmental gradients | 19.2 Janja Francé Environmental status of pelagic habitats: lessons from phytoplankton case studies |
| 11:30-11:40 | 20.1 Méliane Deshaies Carbon storage, dynamics and budgets sea cucumber <i>Cucumaria frondosa</i> | 20.2 Marco Thines Diversity of marine oomycete parasites of marine primary producers and the zoospore loop |
| 11:40-11:50 | 21.1 Anaïs Richard Beach wrack and greenhouse gas emissions in Baltic coastal ecosystems | 21.2 Moritz Nusser Does bioturbation impact methane ebullition from soft marine sediments? |
| 11:50-12:00 | Questions and Answers | |
| 12:00-12:10 | 22.1 Sahed Ahmed Palash Effects of warming on mesozooplankton in the Elbe estuary: a summer mesocosm experiment | 22.2 D K A Barnes Fundamental relationships between iceberg disturbance and seabed spatial competition |
| 12:10-12:20 | 23.1 Kirsty Morris Temporal health variation in Irish <i>Mytilus</i> in relation to SST | 23.2 Carolin Uhler A decade apart - comparison of benthic communities in the deep central Arctic Ocean |
| 12:20-12:30 | 24.1 Cristina Sánchez Jiménez Effects of heatwaves on juvenile clam's biology and behaviour | 24.2 Marie Elisabeth Kaufmann Macrobenthic diversity and distribution in the Beagle Channel region |
| 12:30-12:40 | 25.1 Tjitske Kooistra Heat wave resilience of a mud-loving clam in different habitats | 25.2 Jorien Rippen Habitat heterogeneity shapes marine biodiversity along a sea-dike |
| 12:40-12:50 | 26.1 Marie Fouet Heatwaves exacerbate the impacts of invasive species in intertidal flats | 26.2 Kristjan Herkül Distribution, co-occurrence and niche of charophytes and angiosperms in the northern Baltic Sea |
| 12:50-13:00 | Questions and Answers | |

13:00-14:00 Lunch Break

14:00-14:40 Britas Klemens Eriksson

Using bioacoustics to uncover data deficient underwater ecosystems

Session Chair: Silas Principe

14:40-14:50 **27.1 Siti Nurtahirah Ja'Afar**
Redox proteomics of *Acropora digitifera*: protein thiol dynamics and thermal stress adaptation

14:50-15:00 **28.1 Lucia Gastoldi**
Temperature and phosphate effects on coral photo-metabolism

15:00-15:10 **29.1 Cédric Meunier**
influence of temperature and nutrient availability on plant-ectotherm trophic interactions

15:10-15:20 **30.1 Brenda Walles**
The impact of marine heatwaves on European flat oysters from different origins

15:20-15:30 **Questions and Answers**

Session Chair: Marco Munari

27.2 Daniela Yepsen
Juvenile hake *Merluccius gayi gayi* hotspots and overlap with the bottom trawl fleet in Chile

28.2 Soraia Vieira
Food web attributes to assess estuarine benthic ecosystem

29.2 Adeline Tauran
Impact of environmental changes on coastal subtidal macrozoobenthic communities' evolution

30.2 Constantinos Varotsis
Marine diatoms in the presence of microplastics, nanoplastics and isotopes of ¹³C and ¹⁵N

15:30-16:00 Afternoon Break

16:00-16:10 **31.1 Francesco Fabiano**
Microbiome dynamics in sponge aquaculture: wild and integrated fish farm cultivation

16:10-16:20 **32.1 Nicole Jahnsen**
Effects of artificial light pollution on the commercial bivalve *Mytilus chilensis*

16:20-16:30 **33.1 Margherita Burini**
Effects of multiple stressors on Grado lagoon ecosystem functioning

16:30-16:40 **34.1 Iryna Kapshyna**
Meiofauna sandy-beach communities reflect grain-size change after human impact

16:40-16:50 **35.1 Virginia Menicagli**
Emerging contaminants effects on seagrass *Cymodocea nodosa*

16:50-17:00 **Questions and Answers**

31.2 Geraldina Signa
Unveiling loggerhead sea turtle diet and foraging areas in the Mediterranean Sea

32.2 Danny Buss
Foraging preferences of North Atlantic right whale and fin whale using archaeological and museum specimens

33.2 William Mills
Ecological and conservation implications of a declining fur seal population for giant petrels

34.2 Elisa Arroyo Martínez
Ontogenetic distribution of elasmobranch species in the ISRA Murcia Pockmarks

35.2 Andreja Ramšak
Mussel culture – an ecosystem service under threat

19:30-21:00 Conference Dinner

09:00-09:40 **Cornelia Jaspers**

Global change impacts on marine ecosystems: do gelatinous zooplankton traits facilitate jellyfish blooms in the ocean of tomorrow?

Session Chair: Jukka-Pekka Verta

09:40- 09:50 **36 Ana Azevedo**

Modelling habitat suitability of *Posidonia oceanica* in a changing ocean

09:50-10:00 **37 Isabella Provera**

Transcriptional memory in *Posidonia oceanica* seedlings: persistence and role in heat stress responses

10:00-10:10 **38 Fabio Blanco Murillo**

Unravelling the effect of marine heat waves on seagrass belowground

10:10-10:20 **39 Stefanie Ries**

Seascape genomics of Scandinavian eelgrass: implications for conservation

10:20-10:30 **Questions and Answers**

10:30-11:00 Morning Break

Session Chair: Jukka-Pekka Verta

Session Chair: Mathieu Cusson

11:00-11:10 **40.1 Patrizia Stipcich**

Seagrass leaf bleaching: does it affect the plant photoprotective mechanisms?

40.2 Alberto Serrano

Antarctic benthic habitats using non-destructive methods

11:10-11:20 **41.1 Laura Steeves**

Biodiversity in northern European seagrass meadows: spatial and temporal trends

41.2 Martina Orlando-Bonaca

Benthic vegetation distribution in the northern Adriatic: present and future

11:20-11:30 **42.1 Elisabeth Juliussen**

Changes in eelgrass fish community across a spatial gradient

42.2 Valentina Lauria

Finding the surviving spots of the endangered bamboo coral *Isidella elongata* in the central Mediterranean

11:30-11:40 **43.1 Johan Severinson**

Biodiversity impacts of ecosystem shift from seagrass to drift algae

43.2 Alice Premici

Deep sea fauna associated with cold water corals of Bari Canyon, Southern Adriatic Sea

11:40-11:50 **44.1 Cristina Galván**

Satellite-based assessment of seagrass habitat functions for ecosystem management

44.2 Domen Trkov

Pinna nobilis shells as key elements in the environment for coastal fish community

11:50-12:00 **Questions and Answers**

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|-------------|---|---|
| 12:00-12:10 | 45.1 Leo Minini Deciphering the genetic basis of growth and heat tolerance in sugar kelp | 45.2 Ana Fortič Empty <i>Pinna nobilis</i> shells: refuge for mobile macroinvertebrates |
| 12:10-12:20 | 46.1 Elvira Ramos Macroalgal communities: impact of climate change on species near their tolerance limits | 46.2 Louisa Alina Schulz The distribution and population structure of the quahog, <i>Arctica islandica</i> in the German Baltic Sea |
| 12:20-12:30 | 47.1 Alexander Jueterbock The application of thermal priming for kelp farming and restoration | 47.2 Hafiz Borkha-nuddin Temporal dynamics of reef invertebrates in Pulau Bidong and Pulau Yu, Terengganu: recovery and resilience |
| 12:30-12:40 | 48.1 Nina Larissa Arroyo Status of kelp forests in Spanish and Portuguese waters | 48.2 Piergiorgio Massa From ancient genomes to modern conservation in Atlantic bluefin tuna |
| 12:40-12:50 | 49.1 Ralf Rauten-berger Ecotypic salinity adaptation of <i>Saccharina latissima</i> from Skjerstadfjorden | 49.2 Olena Uzun Large-scale biodiversity assessment of Antarctic meiofauna using multi-gene DNA |
| 12:50-13:00 | Questions and Answers | |

13:00-14:00 Lunch Break

Session Chair: Mathieu Cusson

Session Chair: Stelios Katsanevakis

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|-------------|---|--|
| 14:00-14:10 | 50.1 Arne Berre Digital Twins of the Ocean for monitoring and management of marine biodiversity | 50.2 Cesar Bordehore Fisheries modelling: a new approach to maximising profits and landings |
| 14:10-14:20 | 51.1 Nicolas Bill BRUVS compared to eDNA and Trawls in the German Bight | 51.2 Bríd O'Connor Sensitivity analysis of fish species in the Northeast Atlantic |
| 14:20-14:30 | 52.1 Roxana Preston Developing genetic diversity estimates for charophytes in the Baltic Sea | 52.2 Sara D'Ambros Burchio An integrative framework for addressing taxonomic challenges in <i>Cystoseira</i> |
| 14:30-14:40 | Questions and Answers | |
| 14:40-14:50 | 53.1 David Poling Computer vision for semi-supervised counting of fish in underwater video | 53.2 Stelios Katsanevakis Harnessing advanced technologies for monitoring and managing aquatic invasive species in European waters |

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|-------------|---|---|
| 14:50-15:00 | 54.1 Juan José Ortiz García Otoliths vs eye lenses, parallel histories from different growth structures | 54.2 Guillaume Marchessaux Invasion of the blue crab <i>Callinectes sapidus</i> |
| 15:00-15:10 | 55.1 Mathilde Horaud Allochrony in Atlantic lumpfish: genomic and otolith shape in spring and autumn spawners | 55.2 Stefano Varrella Can multi-marker eDNA replace classical approaches for alien species detection? |
| 15:10-15:20 | 56.1 Chiara Papetti Monitoring Weddell Sea biodiversity using Antarctic fish as proxies for connectivity | 56.2 Lisa Sandri Macrobenthic biodiversity and functional patterns in three Adriatic marinas |
| 15:20-15:30 | Questions and Answers | |

15:30-16:00 Afternoon Break

Session Chair: Inga Kirstein

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|-------------|---|
| 16:00-16:10 | 57 Karolina Jonko-Sobuś Infrared spectroscopy: uses in marine biology data collection |
| 16:10-16:20 | 58 Ana Lokovšek Microalgal-derived biostimulants as a novel strategy for restoration of <i>Cystoseira</i> |
| 16:20-16:30 | 59 Paolo Cappa SMART drumlines reduce wildlife mortality in shark management programs |
| 16:30-16:40 | 60 Inma Herrera Long-term assessment of whale-watching trends in the proposed National Park of Guguy (Canary Islands) |
| 16:40-16:50 | Questions and Answers |
| 16:50-17:00 | 61 Mathieu Cusson From scour to recovery: macroalgal resilience in ice-disturbed coastal ecosystems |
| 17:00-17:10 | 62 Borut Mavric The circalittoral epibenthic communities in the Northern Adriatic Sea; A novel surveying methodology |
| 17:10-17:20 | 63 Jasmin S Mueller Insights into small-scale dynamics of intertidal and subtidal soft-bottom infauna |
| 17:20-17:30 | 64 Yuthika Jalim Diet and trophic position of <i>Cucumaria frondosa</i> and <i>Mytilus edulis</i> across populations from eastern and northern Canada |
| 17:30-17:40 | Questions and Answers |

18:00-20:00 Poster Session / Screening of documentary "Sea of Marmara"
Yellow Submarine Quiz

9th July 2025

09:00-09:40 Simonetta Fraschetti

Restoring marine ecosystems: key achievements and future challenges

Session Chair: Eirini Apazoglou

09:40-09:50

65 Marina Prieto-Amador

Temporal and spatial analysis of El Cachucho MPA effects

09:50-10:00

66 Jesús Padrón García

Guguy, a key marine area for a National Park proposal

10:00-10:10

67 Christian Nilsson

Depth Learning – using Digital Twin of the Ocean resources to uncover ecological trends in a Swedish MPA

10:10-10:20

68 Kaja Balazy

Zooplankton for understanding Arctic change: perspectives from seabird diets

10:20-10:30

Questions and Answers

10:30-11:00 Morning Break

11:00-11:10

69 Nur Eda Topçu Eryalçın

Assessing coralligenous habitats in an Aegean MPA (Eastern Mediterranean)

11:10-11:20

70 Paolo Comandini

Salt marsh restoration in the Venice Lagoon: barriers and enablers

11:20-11:30

71 Barbara Horta e Costa

Social attributes are key to global marine fishers' vulnerability to climate change

11:30-11:40

72 Qianshuo Zhao

Prioritisation analysis for biodiversity conservation in the West Pacific

11:40-11:50

73 Anna Maria Addamo

Systematic conservation planning of MPAs for a science-based MSP

11:50-12:00

Questions and Answers

12:00-12:30 Closing Ceremony

15:45-18:30 Excursion Arctic Coastal Walk near Bodø