



Aquaculture Horizons

April 28-30, 2025 | Setúbal, Portugal

International Conference and Exhibition on

AQUACULTURE & FISHERIES

April 28-30, 2025 | Polytechnic University of Setubal, Portugal

Silver Sponsor



Exhibitor

EXTRU-TECH

Hosting University

Supported By



INSTRUCTIONS FOR SPEAKERS

1. **Keynote Talks:** Keynote speakers will be allotted 20 minutes to present their results, followed by a 5 minutes discussion period.
2. **Invited Talks:** Invited speakers will be allotted 17 minutes to present their results, followed by a 3-minutes discussion period.
3. **Oral Talks:** Oral speakers will be allotted 12 minutes to present their results, followed by a 3-minutes discussion period.
4. Please do not exceed the allotted time slot.
5. Speakers should have their presentations saved on a USB memory stick.
6. It is suggested to email a copy of the presentations to us as back up.
7. Please prepare the presentation in PPT files, PDF is not recommended.
8. **Basic AV setup will be provided:** laser pointer, cordless mike, desktop mike, sound system.
9. Laptops equipped with Windows 10, Office 2010 Pro English (Word, Powerpoint, Excel) and Adobe Reader are provided.
10. If your presentation files contain movies, please make sure that they are well formatted and connected to the main files. You may check your slides during the breaks.
11. Projectors are equipped with standard VGA connection ports. Mac users should bring their own adapter cord.
12. Please re-check this program prior to the conference to confirm if any changes have been made to your session.
13. Conference volunteers will move the mic during Q&A. Audience with questions may raise hand to receive the mic.

INSTRUCTIONS FOR POSTER

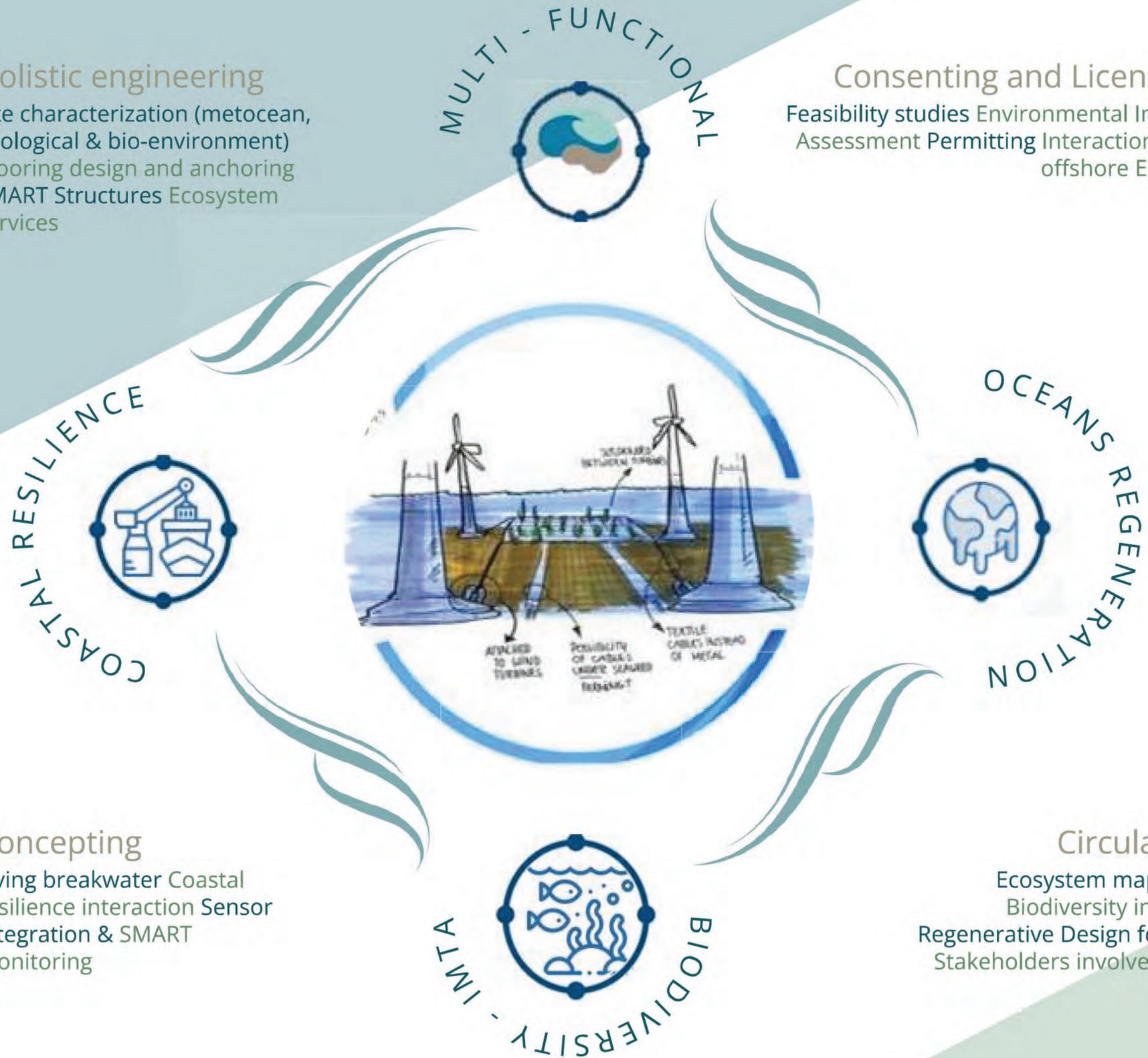
1. Maximum poster size is A0.
2. Push pins for attaching the poster to the board will be provided.
3. Poster presenters will be directed to the designated board at the start of the poster session.
4. Author must be present to provide details and answer questions during the selected poster session times.

AQUACULTURE SOLUTIONS

Holistic engineering

Site characterization (metocean, geological & bio-environment)
Mooring design and anchoring
SMART Structures Ecosystem services

Consenting and Licensing
Feasibility studies Environmental Impact Assessment Permitting Interaction with offshore Energy



Concepting

Living breakwater Coastal resilience interaction Sensor integration & SMART monitoring

Circularity
Ecosystem mapping
Biodiversity impact
Regenerative Design for life
Stakeholders involvement

TRACK RECORD

I3-4 seaweed

An EU-wide project with 16 partners advancing sustainable seaweed cultivation and biotech, where HAEDDES develops a Digital Twin to optimize aquaculture yield and health.

PRR Vertical Bivalves

Led by Oceano Fresco, this project targets regenerative bivalve aquaculture, with HAEDDES creating an Ecosystem Services Assessment Tool to boost sustainability and farm performance.

Aquabreak

HAEDDES leads this eco-innovation project combining seaweed farming with coastal protection via a Nature-Based Solution, enhancing ecosystem services and coastal resilience in Portugal and Norway.

Application

NEXUS: HAEDDES visualizes real-time aquatic data to reveal ecosystem dynamics and support sustainable waterway management.

NESEV: A HAEDDES platform modeling ecosystems as scalable, interactive networks across nature, society, and economy.

ADVISORY BOARD MEMBERS



Hon. Prof. Roy D. PALMER

Founder - Association of International Seafood Professionals & Seafood Consumers Association, Australia



Andreia C. M. Rodrigues

Aix Marseille University, France



Paul Robert Van Der Heijden

Founder, Mature Development BV
Netherlands

COMMITTEE MEMBERS



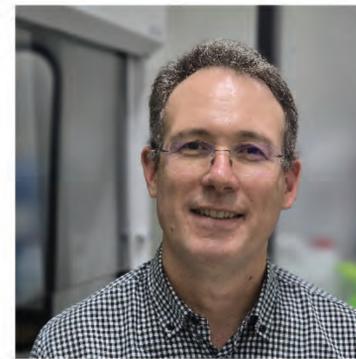
Ricardo Salgado

Setubal Polytechnic University
Portugal



Ana Mata

Setubal Polytechnic University
Portugal



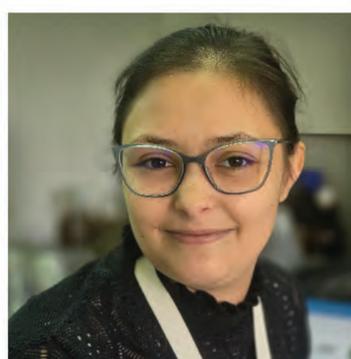
Nuno Borges

Setubal Polytechnic University
Portugal



Dina Galhanas

Setubal Polytechnic University
Portugal



Inês Ferreira

Setubal Polytechnic University
Portugal



Romeu Ribeiro

Setubal Polytechnic University
Portugal

Setubal Polytechnic University Welcomes Participants of Aquaculture Horizons 2025 Conference

Welcome to all participants, speakers and guests,

It is with great pleasure that of Setubal Polytechnic University welcomes the Aquaculture Horizons 2025 conference, which marks an important moment of meeting and exchanging knowledge.

We are very happy to bring together professors, students, researchers and professionals from the sector who will contribute to the advancement of discussions and innovations in Aquaculture.

This event offers a unique opportunity to learn, share ideas and create new partnerships. Throughout the days, there will be the opportunity to explore relevant topics, listen to presentations from renowned experts and participate in debates that will shape the future of aquaculture.

The hosting of the Aquaculture Horizons 2025 conference will mark an important moment for the Setubal Polytechnic University and for the Setubal region, where aquaculture represents an important sector. Each person's commitment to building an environment of collaboration and excellence will contribute to the success of the conference.



**Prof. Ângela Maria
Gomes Teles de Matos
Cremon de Lemos**

President of Setubal
Polytechnic University
Portugal

DAY - 1, 28 APRIL, 2025

AQUACULTURE HORIZONS 2025

INTERNATIONAL CONFERENCE AND EXHIBITION ON AQUACULTURE POLYTECHNIC UNIVERSITY OF SETUBAL, PORTUGAL

08:00 – 08:30 Registrations

08:30 – 08:45 **Welcome**

Paul Robert van der Heijden, MatureDevelopment BV, The Netherlands

Antonio Correia, Aquanostra, Portugal

Luisa Torre, Polytechnic University of Setubal, Portugal

ROOM-A

Session Chair: Paul Robert van der Heijden, MatureDevelopment BV, The Netherlands

08:45 – 09:10 **Keynote Talk:** Offshore the Future of Aquaculture

Paulo Serra Lopes, Mariculture Systems Ltd, Portugal

09:10 – 09:35 **Keynote Talk:** The Context of the Aquaculture Industry in Portugal and Setúbal: Challenges and Opportunities

Antonio Correia, Aquanostra, Portugal

09:35 – 10:55 **Crustacean and Shellfish Innovation Session- Chair Gregory Smith, University of Tasmania, Australia**

09:35 – 09:55 **Title:** Larval Culture of the Tropical Spiny Lobster *Panulirus homarus*; A New Candidate Species for Aquaculture in Oman

Mohamed Al Wahaibi, Center for Excellence in Marine Biotechnology, Sultanate of Oman

09:55 – 10:15 **Title:** *Palinurus elephas* Culture – Fishery Restoration and Farming?

David J Fletcher, RAS Aquaculture Research Ltd, United Kingdom

10:15 – 10:35 **Title:** Molecular Insights into the Life History of the Ornate Lobster (*Panulirus ornatus*): A Breakthrough in Decapod Research

Tomer Ventura, University of the Sunshine Coast, Australia

10:35 – 10:55 **Title:** The Benefits and Pitfalls of Ozone Use in Marine Hatchery Systems

Gregory Smith, University of Tasmania, Australia

10:55 – 11:25 **Refreshment Break**

11:25 – 13:25 **Session Chair: Paul Robert van der Heijden**, MatureDevelopment BV, The Netherlands

11:25 – 11:45 **Title:** European Lobster Farm Scale Up Powered by Artificial Intelligence

Asbjorn Drengstig, Norwegian Lobster Farm, Norway

11:45 – 12:05 **Title:** The Science Behind Artificial Intelligence Powered European Lobster Production

Carly Daniels, Norwegian Lobster Farm, Norway

12:05 – 12:25 **Title:** Conserving the European Black Lobster (*Homarus gammarus*) through Breeding, Research, and Community Engagement at the North Sea Oceanarium, Denmark

Martin W Riis, Northsea Oceanarium, Denmark

12:25 – 12:45 **Title:** Effect of Artemia Prey Size, Type of Prey and V-UV Irradiation on Survival and Growth Performance of European Lobster Larvae

Ivar Lund, Danish Technical University, Denmark

12:45 – 13:05 **Title:** Advances in the Management of Cannibalism in the Ornate Rock Lobster *Panulirus Ornatus*
Quinn Fitzgibbon, University of Tasmania, Australia

13:05 – 13:25 **Title:** Variation in Reproductive Traits of the Mud Crab (*Scylla olivacea*) Across the Indo-Pacific: Implications for Aquaculture and Sustainable Fisheries Management
Sukree Hajisamae, Prince of Songkla University, Thailand

13:25 – 14:15 **Lunch Break**

14:15 – 16:05 **Session Chair–Dusan Palic, Ludwig–Maximilians–University Munich, Germany**

14:15 – 14:35 **Title:** Microbial Flocculation : Exploring the Avenue in Green and Smart Aquafarming
Babitha Rani Asanaru Majeedkutty, ICAR–Central Institute of Fisheries Education, India

14:35 – 14:55 **Title:** Trade-off Between Fisheries Utilization and Environmental Protection in Lakes of China
Jiashou Liu, Institute of Hydrobiology, Chinese Academy of Sciences, China

14:55 – 15:15 **Title:** Environmental Effect on Oyster Growth in the Sado Estuary (Portugal)
Dina Galhanas, Setubal Polytechnic University, Portugal

15:15 – 15:35 **Title:** The Secondary Sexual Characteristics of Female *Procambarus clarkii*: Application in the Accurate Identification and Selection of Mature Female Crayfish
Wei Li, Institute of Hydrobiology, Chinese Academy of Sciences, China

15:35 – 16:05 **Refreshment Break**

16:05 – 18:05 **Session Chair– Dusan Palic, Ludwig–Maximilians–University Munich, Germany**

16:05 – 16:25 **Title:** Shape Your Body: Early–Life Environment Shapes Claw Bilateral Asymmetry in the European Lobster (*Homarus gammarus*)
Gioia Burini, University of Tuscia, Italy

16:25 – 16:45 **Title:** Does Genetic Bottlenecking Undermine European Lobster Hatchery Stocking?
Charlie Ellis, University of Exeter, United Kingdom

16:45 – 17:05 **Title:** Into the Wild: A New Approach to the Aquaculture Production of Brown Trout (*Salmo trutta L.*) to Promote Restocking Success
Carlos M. Alexandre, University of Evora, Portugal

17:05 – 17:25 **Title:** Bridging Conservation and Fisheries: Restorative Aquaculture in Tasmania
Andrew Trotter, University of Tasmania, Australia

17:25 – 17:45 **Title:** Recent Models of the Hydroelastic Behaviour of Floating Flexible Net Cages for Offshore Aquaculture
Sarat Chandra Mohapatra, Instituto Superior Tecnico, Portugal

19:30 Onwards **Conference Dinner at Forte de Albarquel**
Welcome Note from The Mayor of Setubal, André Valente Martins

ROOM-B

14:15 – 15:35 **Workshop : Innovative Aquaculture for Sustainability: Advancing Sustainable Practices Across the Seafood Industry**
Gregory Smith, University of Tasmania, Australia
Linn Indrestrand, Port of Hirtshals, Denmark
Jean-Jose Filippi, Hatchery Manager, Stella Mare, Marine Research Centre, University of Corsica and CNRS, Corsica
Andrew Trotter, University of Tasmania, Australia

DAY - 2, 29 APRIL, 2025

AQUACULTURE HORIZONS 2025

- 08:35 – 10:40** Session Chair- **Andreia C. M. Rodrigues**, Aix Marseille Université, Mediterranean Institute of Oceanography (MIO), Marseille, France
- 08:35 – 09:00** **Keynote Talk:** Healthy Fish for Healthy People: Global Veterinary Efforts to Support Responsible Growth of Aquaculture
Dusan Palic, Ludwig-Maximilians-University Munich, Germany
- 09:00 – 09:20** **Title:** Revolutionizing Aquaculture Health Monitoring with AI-Powered Diagnostics
Ihor Feoktistov, Leven Vision B.V, The Netherlands
- 09:20 – 09:40** **Title:** Parasites and Health Condition of Marine Resources in A Framework of Global Change: Cases of Study in the Catalan Coast (NW Mediterranean)
Carmen Gilardoni, Institute of Marine Science (ICM CSIC), Spain
- 09:40 – 10:00** **Title:** Effects of Microplastics on Blue Mussel (*Mytilus edulis*)
Aurore Zalouk-Vergnoux, Nantes University, France
- 10:00 – 10:20** **Title:** Vertical Fish Project – Impact of Anisakis spp. Infection Levels on the European Hake (*Merluccius merluccius*) Fillet Quality
Sónia Gomes, University of Porto, Portugal
- 10:20 – 10:40** **Title:** Development of Oral Vaccines for Aquaculture Using Spore-Surface-Display Technology
Claudia R. Serra, CIIMAR – Interdisciplinary Centre of Marine and Environmental Research, Portugal
- 10:40 – 11:10** Refreshment Break
- 11:10 – 12:30** Session Chair- **Ana Antunes**, Setubal Polytechnic University, Portugal
- 11:10 – 11:30** **Title:** The Feasibility of Agricultural Wastes on Optimizing Water Quality and Natural Bait By Regulating Microbial Loop
Chunlei Song, Institute of Hydrobiology, Chinese Academy of Sciences, China
- 11:30 – 11:50** **Title:** Improving Marine FinFish Seedstock Production
Marty Riche, Florida Atlantic University, USA
- 11:50 – 12:10** **Title:** Bridging Ecosystems: Aquaculture’s Role in the Spread of Marine NonIndigenous Species
Romeu S. Ribeiro, Setubal Polytechnic University, Portugal
- 12:10 – 12:30** **Title:** Introducing CADMUS to HACCP
Roy D. Palmer, Association of International Seafood Professionals, Australia
- 12:30 – 13:15** Lunch Break
- 13:15 – 15:15** **Panel: Aquatic Animal Welfare Open Discussion Forum**
Title: New Frontiers in Animal Welfare: Emerging Tools and Techniques
Andreia Rodrigues, Dusan Palic, Francesc Padros Bover & Billo Heinzpeter Studer
- Title:** Why Animal Welfare Matters: Opening the Dialogue
Andreia C. M. Rodrigues, Aix Marseille Université, Mediterranean Institute of Oceanography (MIO), Marseille, France

Title: Disease Control and Prevention Tools to Support Fish Health and Well Being

Dusan Palic, Ludwig-Maximilians-University Munich, Germany

Title: Fish Welfare in Fish Farming: Present Crossroads and Future Challenges

Francesc Padros Bover, Veterinary School of the Universitat Autònoma de Barcelona, Spain

Title: Fish Welfare: Ensure Well-Being or Reduce Suffering?

Billo Heinzpeter Studer, think.fish, Italy

15:15 – 15:45 Refreshment Break

15:45 – 18:25 Session Chair– Andreia Rodrigues, Aix Marseille Université, Mediterranean Institute of Oceanography (MIO), Marseille, France

15:45 – 16:05 Title: Effects of Replacing Fish Oil and Fishmeal with Microbial Diets on Salmon Growth, Lipid Composition and Gene Expression

Chris Parrish, Memorial University of Newfoundland, Canada

16:05 – 16:25 Title: Protein Alternatives from Circular Bioeconomy for Aquafeeds

Luisa M.P.Valente, CIIMAR – Interdisciplinary Centre of Marine and Environmental Research, Portugal

16:25 – 16:45 Title: White Grape Marc Extracts as Potential Modulators of European Seabass Growth, Immune Status and Disease Resistance

Claudia R. Serra, CIIMAR – Interdisciplinary Centre of Marine and Environmental Research, Portugal

16:45 – 17:05 Title: Discovering the Antioxidant Potential of Halophyte Plants

Ines Joao Ferreira, Setubal Polytechnic University, Portugal

17:05 – 17:25 Title: Assessment of Fatty Acid Metabolism in European Lobster (*Homarus gammarus*) Larvae and Postlarvae: A Pathway to Optimized Larval Nutrition

Renata Goncalves, S2AQUA– Collaborative Laboratory, Association for a Sustainable and Smart Aquaculture, Portugal

17:25 – 17:45 Title: Formulation of Sustainable Fish Feed for Aquaponics: Utilizing Poultry Droppings to Enhance Nutritional Efficiency and Environmental Sustainability

Vaibhav Bhimraj Naik, Indian Institute of Technology Kharagpur, India

17:45 – 18:05 Title: Vermi-Tea Production from Fish Waste in Vermicomposting Reactor for Enhanced Nutrient Recovery in Aquaponics System

Ahmad Faisal, Indian Institute of Technology Kharagpur, India

18:05 – 18:25 Title: Economic Challenges and Livelihood Resilience in the Baltic Fisheries Sector: The Impact of Feed and Aquaculture Market Shifts

Michael Rosciszewski-Dodgson, University of Gdansk, Poland

18:30 – 19:00 Poster Session

Title: Advancing the Watershed Fragility Index (WFI) for Planning and Designing Sustainable Aquaculture Using AI and Machine Learning

Michael van Zyll de Jong, University of New Brunswick, Canada

Title: Fish-Parasite-Man: The Triangle That Drive the Adoption of New Strategies for One Health

Paula Ramos, CIIMAR – Interdisciplinary Centre of Marine and Environmental Research, Portugal

Title: *Stephanostomum* Spp. (Digenea: Acanthocolpidae) A Muscle Parasite of Pouting (*Trisopterus luscus* (Linnaeus, 1758) Collected In Portuguese Waters and Its Risk to Food Safety

Paula Ramos, CIIMAR – Interdisciplinary Centre of Marine and Environmental Research, Portugal

DAY - 3, 30 APRIL, 2025

AQUACULTURE HORIZONS 2025

09:00 – 10:15

AI Panel Session

Title: What are the Governance Effects of Artificial Intelligence in Aquaculture?

Paul Robert van der Heijden, MatureDevelopment BV, The Netherlands

Title: Operationalising AI at Scale in Aquaculture

Hans Petter Dalen, IBM, Denmark

Ihor Feoktistov, Leven Vision B.V, The Netherlands

Tamara Tatian, IBM, United Kingdom

10:15 – 10:40

Refreshment Break

Session Chair– Paul Robert van der Heijden, MatureDevelopment BV, The Netherlands

10:40 – 11:20

Title: NEXUS: Streamlining Aquaculture Real Time Monitoring

Joao Alves, HAEDS, Portugal

11:20 – 11:40

Title: Incorporating Image Analysis, Machine Learning, and Automation into Aquaculture Research

Dean Giosio, University of Tasmania, Australia

11:40 – 12:00

Title: How do we Quantify Shell Quality in Oyster Aquaculture?

Ernest Chuku, University of Tasmania, Australia

12:00 – 12:20

Title: A Computer Vision Method to Estimate Ventilation Rate of Atlantic Salmon in Sea Fish Farms

Lukas Folkman, Griffith University, Australia

12:20 – 12:40

Title: Using Computer Vision to Assess the Gill Health of Farmed Atlantic Salmon (*Salmo salar*)

Quynh Vo, Griffith University, Australia

12:40 – 13:30

Lunch Break

Session Chair– Paul Robert van der Heijden, MatureDevelopment BV, The Netherlands

13:30 – 13:50

Title: Island Innovation – A conversation with James Ellsmoor – Paul van der Heijden will discuss the work of Island Innovation with CEO/Founder James Ellsmoor

James Ellsmoor, Island Innovation, Portugal

13:50 – 14:10

Title: A Novel AI System to Automatically Measure Shrimp for Selective Breeding in Aquaculture.

Abiam Remache Gonzalez, Universidad de Las Palmas de Gran Canaria, Spain

14:10 – 14:30

Title: Development of a Low Cost Acquisition Board with IoT Support for Aquaculture Monitoring

Henrique Primo, Setubal Polytechnic University, Portugal

14:30 – 15:30

AI Workshop

Paul Robert van der Heijden, MatureDevelopment BV, The Netherlands

Hans Petter Dalen, IBM, Denmark

Tamara Tatian, IBM, United Kingdom

15:30 – 16:00

Closing Session & Poster Awards

Luisa Torre, Polytechnic University of Setubal, Portugal

Paul Robert van der Heijden, MatureDevelopment BV, The Netherlands

Andreia C. M. Rodrigues, Aix Marseille Université, Mediterranean Institute of Oceanography (MIO), Marseille, France

FLOOR PLAN

Blue – Stand and exposition area
(dark blue – 3 m stand)
Red – Refreshments
Yellow- Poster session
Purple – Lunch
Green - Toilet

A1 – Auditorium 1 – Room A
A2 – Auditorium 2 – Room B



Supporting Partners

AAS
AQUACULTORES DE
SETÚBAL

Association of International
seafood
Professionals

AWF
Aquaculture without Frontiers

Centro Interdisciplinar de Estudios Estratégicos para la Acuicultura
CIDEEA
Construyendo un futuro azul

GILLS
Global Initiative for LDC
Leadership through Seafood

SOL
CONNECT N CONSULT

sea
Certification

Media Partners

Akuakultur
MAJALAH PERIKANAN BUDIDAYA

Algae Planet

eco
environment coastal & offshore

AG VISOR PRO
ANSWERS NOW!



Prism Scientific Services Pty Ltd., a premier conference organizer, is committed to advancing innovation and sustainability in the aquaculture sector. Our mission is to bring together global experts, researchers, and industry leaders to foster knowledge exchange and collaboration that supports responsible aquaculture practices. Through our conferences, we spotlight the latest scientific developments, technologies, and sustainable solutions, playing a key role in shaping the future of aquaculture. With a strong focus on interdisciplinary dialogue, we aim to address pressing challenges such as environmental impact, food security, and marine conservation. Rooted in our commitment to sustainability, we strive to minimize our environmental footprint by promoting green event practices and encouraging eco-conscious engagement. As enablers of progress, we are proud to support the aquaculture industry's journey toward innovation, responsibility, and long-term sustainability.

If you are interested in forming a partnership with us for the planning and organization of conferences and events worldwide, please don't hesitate to contact us via email at writeus@scientificprism.com or by phone at **+61 416000202**. Our services extend to facilitating conferences anywhere in the world, and we look forward to the opportunity to discuss your specific needs and requirements.

we wish to see you at
Aquaculture Horizons – 2026

rakshith.kumar@aquacultureconference.com.au

Australia: +61 390163202

Prism Scientific Services Pty Ltd

302/480 Collins Street, Melbourne, VIC 3000, Australia

www.europeaquacultureconference.com