



SATURDAY, August 25

WAS MEMBERS MEETING

Saturday, August 25 16:00 - 17:00 Sully 1

OPENING CEREMONY & WELCOME DRINK

Saturday, August 25 18:00 - 19:00 Berlioz Auditorium
Chair: Patrick Sorgeloos

SUNDAY, August 26

SUNDAY

PLENARY

Sunday, August 26 09:00 - 10:45 Berlioz Auditorium

Chair: Michael New

09:00 **EAS and WAS Awards**

09:15 **Árni M. Mathiesen**

FAO UPDATE ON THE STATUS OF WORLD AQUACULTURE

09:30 **Robins McIntosh**

CHAROEN POKPHAND FOODS – CHANGING THE FACE OF ASIAN
AQUACULTURE

10:00 **Øyvind Oaland**

TECHNOLOGICAL INNOVATION IN SALMON FARMING

10:30 **STUDENT SPOTLIGHT AWARD**

Inácio Mateus Assane

COMBINATION OF ANTIMICROBIALS AS AN APPROACH TO REDUCE THEIR
USE IN AQUACULTURE: EXAMPLE OF USING THIAMPHENICOL WITH
FLORFENICOL AGAINST *Aeromonas hydrophila*

Samuel M. Pountney, Ingrid Lein, Herve Migaud, Andrew Davie

TEMPERATURE EFFECTS ON CAPTIVE LUMPFISH *Cyclopterus lumpus*
BROODSTOCK SPAWNING SEASON AND GAMETE QUALITY

Wouter Visch, Per Bergström, Göran Nylund, Henrik Pavia, Mats Lindegarth
SPATIAL GROWTH PATTERNS AND NUTRIENT MITIGATION CAPACITY OF
THE BLUE MUSSEL *Mytilus edulis* AND KELP *Saccharina latissima* ON THE
SWEDISH WEST COAST

10:45 **BREAK**

IMMUNOLOGY AND PATHOLOGY

Sunday, August 26 11:20 - 12:40 Rondelet

Chair: Nerea Roher

- 11:20 Elisabeth Ytteborg**, Gerrit Timmerhaus, Vibeke Høst, Celeste Jacq
SWIMMING CHALLENGE WITH WILD, FARMED AND HYBRID ATLANTIC SALMON *Salmo salar* REVEAL REMARKABLE PHYSIOLOGICAL DIFFERENCES
- 11:40 Folalu Adekunle Awe**, Adeolu Akinyemi
IDENTIFICATION OF BACTERIA ISOLATED FROM CATFISH *Clarias gariepinus* FROM SELECTED FISH FARMS IN ODOGBOLU LOCAL GOVERNMENT, OGUN STATE, NIGERIA
- 12:00 Bibha Kumari**, Shahla Yasmin
INVESTIGATION OF HISTOPATHOLOGICAL CHANGES IN *Heteropneustes fossilis* CAUSED BY ARSENIC
- 12:20 Angela Lusiasuti**, Djoko Wiryono, Ratna Kurniasih
THE BLOOD DISORDER IN *Osphronemus guramy*: IS IT POSSIBLY CAUSED BY MEGALOCYTIVIRUS INFECTION?

STUDENT WORKSHOP

Sunday, August 26 11:20 - 12:40 Einstein Auditorium

Chairs: Nuno Leite, Nicole Rhody

- 11:20 Nuno Leite, Katherin Steinberg**
WELCOME
- 11:30 Jean Michel Mortillaro**
THE ROLE OF CIRAD - LA RECHERCHE AGRONOMIQUE POUR LE DÉVELOPPEMENT (AGRICULTURE RESEARCH FOR DEVELOPMENT) IN RESEARCH AND PARTNERSHIP IN TROPICAL AQUACULTURE AND THE OPPORTUNITIES FOR STUDENTS
- 11:45 Nicole Rhody**
TIPS ON HOW TO PREPARE FOR YOUR NEXT JOB INTERVIEW
- 12:00 Tomé Silva**, SPAROS
BRINGING MODELING TOOLS FROM RESEARCH TO PRACTICAL APPLICATIONS
- 12:25 OPEN PANEL DISCUSSION WITH:**
Kathrin Steinberg, EAS Board Student Representative
Jorge Dias, SPAROS, Industry
Nicole Rhody, WAS Student Activities Committee, Mote Marine Laboratory, Non-Profit Research Institution
Patricia M.C. Moraes-Valenti, WAS Board, University of Santo Amaro

MICROBIAL COMMUNITY MANAGEMENT

Sunday, August 26 11:20 - 12:40 Sully 2

Chair: Olav Vadstein

- 11:20** **Stine Wiborg Dahle**, Roman Netzer, Trond Størseth, Deni Ribicic, Deni Košeto, Gunhild Hageskal, Anna Lewin, Kari K.J. Attramadal
SYSTEMATIC MICROBIOTA PROFILING AND DEVELOPMENT OF DECISION SUPPORT TOOLS FOR NEXT GENERATION AQUACULTURE MANAGEMENT
- 11:40** **Priscila Goncalves**, Elizabeth Copeland, Amanda Ricketts, Simon Rechner, Rocky de Nys, Arnold Mangott, Torsten Thomas
MAPPING MICROBIAL COMMUNITY SHIFTS DURING BIOREMEDIATION OF SHRIMP FARMING WATER
- 12:00** **David Straus**, Thomas Meinelt, Dibo Liu, Lars-Flemming Pedersen, Manuel Gesto, John Davidson, Chris Good
PERACETIC ACID – A GREENER SOLUTION FOR DISINFECTING AQUACULTURE SYSTEMS
- 12:20** **Van Bao Duy Le**, Ngoc Phuoc Nguyen, Kristof Dierckens, Viet Dung Nguyen, Nico Boon, Tim Lacoere, Frederiek-Maarten Kerckhof, Jo De Vrieze, Olaf Vadstein, Peter Bossier
GUT MICROBIOTA OF MIGRATING WILD RABBIT FISH *Siganus guttatus* LARVAE HAVE LOW SPATIAL AND TEMPORAL VARIABILITY

NON-FOOD AQUACULTURE

Sunday, August 26 11:20 - 12:40 Sully 1

Chair: Hugues de Verdal

- 11:20** **Martha Patricia Hernández-Vergara**, Lorenzo Díaz-Jiménez, Carlos I. Pérez-Rostro
THE EFFECT OF THE SOURCE OF DIETARY CAROTENE AND ENVIRONMENTAL COLOR ON THE BODY PIGMENTATION OF THE CLOWN FISH *Amphiprion ocellaris*
- 11:40** **Dong Zhang**
SEAHORSE AQUACULTURE: A SUSTAINABLE SOURCE OF MEDICINE
- 12:00** **Mateusz Rawski**, Bartosz Kieronczyk, Jan Mazurkiewicz, Silvia Nogales-Mérida, Abdelbasset Benzertiha, Sanan Talibov, Damian Józefiak
THE USE OF *Bacillus subtilis* PB6 IN SPINY SOFT-SHELL TURTLE *Apalone spinifera* AS FEED AND WATER SUPPLEMENT

- 12:20 Oluwatoyin Adebola**, Oluayo Bello-Olusoji, Oyedapo Fagbenro, Timothy Sabejeje
EFFICIENCY AND SELECTIVITY OF GILLNET MESH SIZES FOR ASSESSING FISH COMPOSITION OF EGBE WATER RESERVOIR, EKITI STATE, NIGERIA
- 12:40 John Bostock**, Martyn Haines, John Birger Stav, Catherine Pons, Panos Christofologiannis, Dag Willmann, George Adrian Stoica, Steven McKillop
SKILL DEVELOPMENT AND ACCREDITATION FOR CAGE-BASED AQUACULTURE: THE ERASMUS+ BlueEDU SECTOR SKILLS ALLIANCE

GENERAL CONTRIBUTED 1

Sunday, August 26 11:20 - 12:40 Sully 3

Chair: Abdul Wahab

- 11:20 M. Mechlaoui**, R. Salah, S. Kaushik, P.A. Geraert, M. Briens, D. Dominguez, L. Robaina, D. Montero, M. Izquierdo
EFFECTS OF DIFFERENT DIETARY SELENIUM SOURCES ON GROWTH PERFORMANCE, LIVER AND MUSCLE COMPOSITION, ANTIOXIDANT STATUS, STRESS RESPONSE AND EXPRESSION OF RELATED GENES IN GILT HEAD SEABREAM *Sparus aurata*
- 11:40 Viviana Rocca**, Florent Tarbouriech
RELAUNCHING THE TRADITIONAL SHELLFISH FARMING IN THE FRENCH SOUTH MEDITERRANEAN TO BOOST OYSTER AND MUSSEL QUALITIES AND THEIR BY-PRODUCTS TO A PREMIUM LEVEL
- 12:00 Abdul Wahab**, M. Rahman, P. Reale, M. Dickson, M. Phillips
AQUACULTURE INTERVENTIONS IN THE COASTAL FISHING HOUSEHOLDS FOR REDUCING PRESSURE ON HILSA SHAD FISHERY
- 12:20 Shahroz Mahean Haque**, Fariha Reza, Ratumoni Rumana, Huzzatul Islam, Russell J Borski, Hillary Egna
EFFECTS OF COMBINING SHING *Heteropneustes fossilis* AT DIFFERENT STOCKING DENSITIES ON PRODUCTION AND ECONOMIC BENEFITS OF KOI-CARP POLYCULTURE

COMMUNICATION TO SOCIETY

Sunday, August 26 11:20 - 15:10 Tiberiade

Chair: Mark Flaherty

SUNDAY

- 11:20 Barry Costa-Pierce**, Kristina Snuttan Sundell, David Fredriksson,
Adam St. Gelais, Zach Miller-Hope, Holly Parker
OCEAN FOOD SYSTEMS: A TRANSDISCIPLINARY, ECOSYSTEMS ECOLOGY
APPROACH TO MARINE AQUACULTURE
- 11:40 Justine Delettre**, Philippe Vallette, Francisco J. Franco Del Amo,
Stefano Angelini, Florence Huron
MR.GOODFISH: A SUSTAINABLE SEAFOOD CONSUMPTION PROGRAMME
- 12:00 Marit Schei Olsen**, Tonje Osmundsen
THE POWER OF PERCEPTIONS: IN SEARCH FOR SOCIAL ACCEPTANCE
- 12:20 Mark Flaherty**, Gregor Reid, Thierry Chopin, Erin Latham
PUBLIC ATTITUDES TOWARDS MARINE AQUACULTURE IN CANADA:
INSIGHTS FROM THE PACIFIC AND ATLANTIC COASTS
- 12:40 LUNCH**
- 14:30 Isaac Ankamah-Yeboah**, Jette Bredahl Jacobsen, Søren Boye Olesen,
Max Nielsen, Rasmus Nielsen
IMPACT OF ANIMAL WELFARE AND ENVIRONMENTAL INFORMATION ON THE
CHOICE OF ORGANIC FISH: EVIDENCE FROM GERMAN CONSUMERS
- 14:50 Patit Paban Halder**
STUDY OF SOLVING THE UNEMPLOYMENT PROBLEM BY ORNAMENTAL
FISHERY TRADE: AN OVERVIEW OF WEST BENGAL

FOOD AND VALUE CREATION FROM THE ATLANTIC OCEAN

Sunday, August 26 09:30 - 17:10 Joffre 5

Chair: Marta Iglesias

The Atlantic Ocean is a shared natural resource for many countries bordering the Atlantic Ocean from the Arctic to Antarctic, including the European Union's outermost regions and other islands in the Atlantic Ocean that are most exposed to climate change, food scarcity and heavily dependent on sea-related activities.

International Research and Innovation cooperation opens the door for new avenues and opportunities for Global aquaculture, as recognised in the Galway Statement on Atlantic Ocean Cooperation (2013) and the Belém Statement on Atlantic Ocean Research Cooperation (2017).

This workshop will bring our cooperation in this promising sector to the next level of ambition focusing on already identified key common areas of interest discussed at the ‘*A New Era of Blue Enlightenment*’ Conference in Lisbon in July 2017.

Under the theme: ‘*Food and Value Creation from the Atlantic Ocean*’ together with our key partners, four key challenges for global food nutrition will be discussed from different angles (public perception, new technologies, sustainable production and climate variability) and recommendations will be identified for the way forward. Furthermore, new ways for cooperation will also be discussed and promoted.

We encourage you to share your views and engage in a lively dialogue to make the most out of this Atlantic Ocean cooperation for the aquaculture sector.

10:30 Registration and Welcome Coffee

11:00 Introductory remarks

- Sigi Gruber, Head of the Marine Resources Unit, Directorate-General for Research and Innovation, European Commission
- Belemane Semoli, Chief Director, Aquaculture and Economic Development, South Africa
- Andrei Polejack, General Coordinator for Oceans, Antarctica and Geosciences, Ministry of Science, Technology, Innovations and Communications - MCTIC, Brazil

Progress of work under the Galway Statement between Canada, the European Union and the United States

- Mike Rust, National Oceanic and Atmospheric Administration, United States
- Jay Parsons, Director Aquaculture, Biotechnology and Aquatic Animal Health Branch, Canada
- Sigi Gruber, Head of the Marine Resources Unit, Directorate-General for Research and Innovation, European Commission and Wojciech Wawrzynski, Horizon 2020 AORAC-SA project

Perspectives from FAO

- Matthias Halwart, Head of Aquaculture branch, Food and Agriculture Organization of the United Nations - “*Global food and nutrition security from the oceans*”

12:15 Panel discussions on scientific and societal challenges of food and value chain creation from the Atlantic Ocean

Chief rapporteur: Jacques Fuchs, retired official of the European Commission

Panel 1: Public perception on aquaculture products

Insights from Atlantic coastal countries illustrating the challenge/solutions:

- Denis Bailly, Horizon 2020 Respon-SEA-ble project - “Communicating aquaculture across the North-Atlantic”
- Eric Routledge, Brazilian Agricultural Research Corporation (EMBRAPA), Brazil
- Xenia Schneider, Horizon 2020 MARINA project – “Sustainable Aquaculture in the Atlantic through Responsible Research and Innovation”

Recommendations and way forward for cooperation.

13:00 Networking Lunch

14:00 Panel 2: New and emerging technologies to service societal needs and new value chains

Insights from Atlantic coastal countries illustrating the challenges/solutions:

- Ronaldo Cavalli, Federal University of Rio Grance (FURG), Brazil
- John Bolton, University of Cape Town, South Africa – “*Integrated systems research*”
- Philippe Potin, Horizon 2020 GENIALG project – “*New value chain for cultivated marine algae*”
- Trevor Telfer, Horizon 2020 TAPAS project – “*Sustainable integrated systems and circularity*”

Recommendations and way forward for cooperation

14:45 Panel 3: Ensuring sustainable aquaculture production

Insights from Atlantic coastal countries illustrating the challenge/solutions:

- Mark Cyrus, Department of Agriculture, Forestry and Fisheries (DAFF), South Africa – “*New species and markets*”
- Brett Macey, DAFF, South Africa – “*One health approach to aquatic animal health management*”
- Wagner Valenti, São Paulo State University (UNESP), Brazil
- Marieke Reuver, Horizon 2020 ParaFishControl project and Isabelle Arzul, Horizon 2020 VIVALDI project – “*Animal disease control*”

Recommendations and way forward for cooperation

15:30 Networking Coffee Break

15:45 Panel 4: Climate variability and ecosystem approach to aquaculture

Insights from Atlantic coastal countries illustrating the challenge/solutions:

- João Gomes Ferreira, Horizon 2020 CERES project – “*Impact and adaptation of climate change*”
- Additional speakers from Brazil and South Africa tba

Recommendations and way forward for cooperation

**16:30 New ways of cooperation:
Reinforce industrial partnership - mirroring the European Aquaculture Technology and Innovation Platform**

- Alexandra Neyts, Secretary General, European Aquaculture Technology and innovation Platform (EATIP)
- Giovanni Lemos, Brazilian Fish Farming Association (PeixeBR), Brazil
- Brett Macey, DAFF, South Africa – “*The bio-innovation aquaculture programme*”

Promote and facilitate human capital development and scientific exchange

- Wojciech Wawrzynski, International Council for the Exploration of the Sea (ICES)
- Marc Vandeputte, Horizon 2020 AQUAEXCEL2020 project
- Hanne Risan Johnsen, Horizon 2020 SAF21 project

17:15 - 17:30 Wrap-up panel discussion and conclusions

- Sigi Gruber, Head of the Marine Resources Unit, Directorate-General for Research and Innovation, European Commission
- Belemane Semoli, Chief Director, Aquaculture and Economic Development, South Africa
- Andrei Polejack, General Coordinator for Oceans, Antarctica and Geosciences, Ministry of Science, Technology, Innovations and Communications - MCTIC, Brazil

VALUE CHAIN ECONOMICS

Sunday, August 26 11:20 - 17:10 Barthez

Chair: Sigurdur Bogason

- 11:20 Panagiotis Efstathiou**, Evagelia Kouskouni, Paraskevi Karlovasiti, Zacharoula Manolidou, Ekaterina Karageorgou, Andreas Efstathiou
HEALTH AND ECONOMIC BENEFITS OF COPPER ALLOY MESH (CAM) USE IN AQUACULTURE
- 11:40 Gregor Reid**, Helen Gurney-Smith, Amber Garber, Duncan Knowler, David Marcogliese, Thierry Chopin, Kathy Brewer-Dalton, Richard Moccia, Mark Flaherty, Ian Forster, Caitlin Smith, Sena De Silva
CLIMATE CHANGE AND AQUACULTURE: CONSIDERING BIOLOGICAL RESPONSE AND RESOURCES
- 12:00 Manoel Xavier Pedroza Filho**, Vinícius Souza Ribeiro
PERFORMANCE ANALYSIS OF GLOBAL VALUE CHAINS: A PROPOSAL OF INDICATORS FOR AQUACULTURE IN BRAZIL
- 12:20 Dimitar Taskov**, Francis Murray
STRUCTURE AND PERFORMANCE OF THE UK MARINE NET-CAGE SALMONID AQUACULTURE INDUSTRY

12:40 LUNCH

14:30 **Frank Asche**, Geir Sogn-Grundvåg, Jimmy Young, Dengjun Zhang
ECOLABELS AND PRODUCT LONGEVITY: THE CASE OF WHITEFISH IN UK GROCERY RETAILING

14:50 **Muhammad Yahya**, Frank Asche, Roy Endré Dahl
TEMPORAL AND SPECTRAL VOLATILITY SPILLOVER DYNAMICS IN AQUACULTURE FISH MARKETS

15:10 **Audun Iversen**, Oystein Hermansen, Frank Asche, Ragnar Nystoyl
SALMON PRODUCTION COSTS AND IT'S EXPLAINING FACTORS:
A COMPARISON BETWEEN THE FIVE MAJOR PRODUCING COUNTRIES

15:30 **Audun Iversen**, Oystein Hermansen, Ragnar Nystoyl, Eirik Junge Hess
ECONOMIC EFFECTS OF SEA LICE – AN ILLUSTRATION FROM NORWEGIAN SALMON FARMING

15:50 **Majid Mohammad Nejad**, Hajimohammad Shirmohammadli, Shahrbanu Alami Rostami
THE EFFECT OF WEIGHT CHANGES IN DRY MATTER, PROTEIN, FAT AND ASH AT SILVER CARP *Hypophthalmichthys molitrix* (VALENCIENNES, 1844)

16:10 **Isaac Ankamah-Yeboah**, Afjal Hossain, Max Nielsen, Badiuzzaman
MARKET INTEGRATION BETWEEN FARMED AND WILD FISH SPECIES IN BANGLADESH

16:30 **Venticia Hukom**, Max Nielsen, Isaac Ankamah-Yeboah, Rasmus Nielsen
HOW CAN WARM-WATER SHRIMP CONQUER THE COLD WORLD? A HEDONIC PRICE STUDY ON SHRIMP IN DANISH RETAIL SALE

FISHBOOST: FISH BREEDING AND GENETICS

Sunday, August 26 11:20 - 17:10 Louisville

Chair: Anna Sonesson

- 11:20 Anna Sonesson**
OVERVIEW OF FISHBOOST AND BREEDING BASICS
- 11:40 Kasper Janssen**
PROFITABILITY OF BREEDING PROGRAMS AND IMPLICATIONS FOR
MANAGEMENT
- 12:00 Ross Houston**
IMPROVEMENT OF DISEASE RESISTANCE TRAITS
- 12:20 Antti Kause**
IMPROVEMENT OF PRODUCTION EFFICIENCY TRAITS
- 12:40 Anna Sonesson**
MANAGEMENT OF INBREEDING
- 12:50 LUNCH**
- 14:30 Beatriz Villanueva**
GAINS IN BREEDING PROGRAMS FOR DISEASE RESISTANCE AND FEED
EFFICIENCY
- 14:50 Ross Houston**
GENOTYPING TECHNOLOGIES
- 15:10 Anna Sonesson**
BENEFITS OF GENOMIC SELECTION
- 15:30 BREAK**
- 15:50 Nikos Zampoukas**
FP9 INFORMATION
- 16:10 Group Table Discussions on**
RESEARCH NEEDS AND FUTURE CHALLENGES OF AQUACULTURE BREEDING

MOLLUSCS

Sunday, August 26 11:20 - 17:10 Antigone 1

Chair: Aad Smaal

SUNDAY

- 11:20** **Daphné Chérel**, Peter G. Beninger
OOCYTE ATRESIA IN CULTURED COMMON COCKLE *Cerastoderma edule*
- 11:40** **Unai Aldalur**, Leire Arantzamendi, Beñat Zaldibar, Izaskun Zorita
ASSESSMENT OF THE REPRODUCTIVE CYCLE AND PRESENCE OF PARASITES IN MOLLUSCS CULTURED IN OFFSHORE WATERS OF THE SOUTHEASTERN BAY OF BISCAY
- 12:00** **Ana Gavrilovic**, Jurica Jug Dujakovic, Ana Ljubicic
THE DEPENDANCE OF THE PRODUCTION CYCLE OF EUROPEAN FLAT OYSTER *Ostrea edulis* (LINNAEUS, 1758) ON THE TIME OF HATCHING
- 12:20** **Fariborz Ehteshami**, Nicholas Romano, Hossein Rameshi
EFFECT OF DIETARY POLYUNSATURATED FATTY ACIDS ON *Pinctada margaritifera* LARVAL GROWTH
- 12:40** **LUNCH**
- 14:30** **Rebeca Moreira**, Patricia Pereiro, Pablo Balseiro, Massimo Milan, Marianna Pauletto, Luca Bargelloni, Beatriz Novoa, Antonio Figueras
REVEALING *Mytilus galloprovincialis* TRANSCRIPTOMIC PROFILES DURING ONTOGENY
- 14:50** **Réjean Tremblay**
SETTLEMENT TRIGGER IN BLUE MUSSELS
- 15:10** **Franck Lagarde**, Annie Fiandrino, Martin Ubertini, Réjean Tremblay, Serge Mortreux, Claude Chiantella, Béatrice Bec, Cécile Roques, Delphine Bonnet, Ismaël Bernard, Hélène Cochet, Grégory Messiaen, Marion Richard, Emmanuelle Roque d'orbcastel, Stéphane Pouvreau, Christophe Lett
TROPIC INTERACTIONS AND CONNECTIVITY STRUCTURE SPATIAL PATTERNS OF PACIFIC OYSTER RECRUITMENT IN A HEAVILY SHELLFISH FARMED MEDITERRANEAN LAGOON
- 15:30** **Jacob Capelle**, Marnix R. van Stralen
RESOURCE PROVISIONING FOR MUSSEL CULTURE IN THE NETHERLANDS: THE CHANGE FROM MUSSEL SEED FISHERY TO SEED MUSSEL COLLECTORS

- 15:50** **Rebecca Smith**, Andrew Jeffs
ASSESSING THE COMMERCIAL POTENTIAL FOR COLLECTION OF GREENSHELL™ MUSSEL SPAT IN THE HAURAKI GULF, NEW ZEALAND
- 16:10** **Jens Kjerulf Petersen**, Camille Saurel, Pernille Nielsen
EXPERIENCE WITH ON-BOTTOM MUSSEL CULTURE IN LOW TIDAL AREAS: THE LIMFJORDEN CASE STUDY
- 16:30** **Harvey Harbach**, Harry Palm
QUALITY VALIDATION OF THE BALTIC SEA MUSSEL *Mytilus edulis*-like BY FLESH WATER CONTENT
- 16:50** **Carolynn S. Culver**, Jonathan Davis, Andrew Kim, Art Seavey, Brent Vadopalas
ROCK SCALLOP CULTURE: TO CEMENT OR NOT TO CEMENT?

FUNCTIONAL INGREDIENTS

Sunday, August 26 11:20 - 17:10 Pasteur Auditorium
Chair: Figueiredo-Silva Claudia



- 11:20** **Marianne Nergård**, Victoria Valdenegro, Trygve Sigholt, Elisabeth Aasum, Alf S. Dalum, Gerrit Timmerhaus, Aleksei Krasnov
FISH ARE WHAT THEY EAT: KRILL EFFECTS ON COMPOSITION, HISTOPATHOLOGICAL CHANGES AND HEALTH MARKERS OF ATLANTIC SALMON *Salmo salar* L. GILLS
- 11:40** **Delano Dias Schleder**, Martina Blank, Felipe Nascimento Vieira, Edemar Roberto Andreatta, Leila Hayashi
NEW INSIGHTS ABOUT LIPID MODULATION ON PACIFIC WHITE SHRIMP FED DIFFERENT COMBINATIONS OF BROWN SEAWEEDS AND THEIR INVOLVEMENT IN WHITE SPOT DISEASE RESISTANCE
- 12:00** **Jurij Wacyk**, Daniela Ortiz, Alvaro Peña, Iliak Harmsen, Pablo Salgado
THE INCLUSION OF A GRAPE MARC EXTRACT MODULATES OXYGEN RADICAL ABSORBANCE CAPACITY (ORAC) AND BIOCHEMICAL PARAMETERS IN RAINBOW TROUT PLASMA
- 12:20** **LUNCH**

- 14:30 Nicola Pontefract**, Eric Leclercq, Mark Rawling, Victoria Valdenegro, Mathieu Castex, Daniel Merrifield
EFFECT OF A SINGLE-STRAIN YEAST FRACTION ON ATLANTIC SALMON SKIN MUCOSAL BARRIERS AND SUSCEPTIBILITY TO SEA LICE
- 14:50 Mark Rawling**, Eric Leclercq, Andrew Foey, Daniel Merrifield, Mathieu Castex
THE EFFECTS OF FEEDING A NOVEL MULTI-STRAINS YEAST FRACTION ON THE MUCOSAL IMMUNE RESPONSES OF RAINBOW TROUT *Oncorhynchus mykiss*
- 15:10 Nicola Pontefract**, Mark Rawling, John Tinsley, Elizabeth Aasum, Mathieu Castex, Daniel Merrifield
DEVELOPMENT OF A HIGH THROUGHPUT REAL-TIME qPCR ASSAY TECHNIQUE FOR THE TARGETED GENE EXPRESSION ANALYSIS OF ATLANTIC SALMON *Salmo salar* MUCOSAL TISSUE RESPONSES
- 15:30 Silvia Torrecillas**, Antonio Serradell, Alex Makol, Genciana Terova, E. Gini, Victoria Valdenegro, Tatiana Kalinowski, Marisol Izquierdo, Félix Acosta, Daniel Montero
DIETARY PREBIOTICS AND PHYTOGENICS IN LOW FISH MEAL AND FISH OIL BASED DIETS FOR EUROPEAN SEABASS *Dicentrarchus labrax*: AN EFFECTIVE TOOL TO BOOST MUCOSAL TISSUES HEALTH AND DISEASE RESISTANCE
- 15:50 Claudia Figueiredo-Silva**, Mihai Sun, Dana Tomlinson, Terry L. Ward
TRACE MINERAL NUTRITION OF FISH AND SHRIMP: A SHORT REVIEW
- 16:10 Philipp Segler**, Diana Siebert, Yang-Su Kim, Michael Schlachter, Henrike Seibel, Carsten Schulz
INOSINE-5-MONOPHOSPHATE AS A FEEDING STIMULANT CAN ENHANCE GROWTH PERFORMANCE IN ATLANTIC SALMON *Salmo salar* EXPOSED TO HANDLING STRESS
- 16:30 Torunn Forberg**, Victoria Valdenegro, Kristian Sørø, Elisabeth Aasum, Hanne Johnsen, Lill-Heidi Johansen, Heidi E. Mikalsen
IMPROVING LUMPFISH *Cyclopterus lumpus* GROWTH AND ROBUSTNESS: EFFECTS OF REDUCED NUTRIENT DENSITY AND FUNCTIONAL ADDITIVES
- 16:50 Øystein Sæle**, Angela Ros Etayo, Ivar Rønnestad, Kai Kristoffer Lie, Hoang T.M.D. Le
NUTRIENT SENSING IN THE INTESTINE – IMPACT ON PERISTALSIS AND THE TRANSCRIPTOME

GENOME REGULATION AND MANIPULATION

Sunday, August 26 11:20 - 17:10 Antigone 3

Chair: Atle Bones

- 11:20 Samuel A.M. Martin**, Carola E. Dehler, Bertrand Collet, Pierre Boudinot
GENERATION OF SALMONID INTERFERON ATTENUATED CELL LINES BY GENE EDITING USING CRISPR/CAS9 APPROACH
- 11:40 Delphine Lallias**, Edwige Quillet, Nicolas Dechamp, Jean-Michel Calvez, Marjorie Bideau, Lionel Goardon, Laurent Labbé, Mathilde Dupont-Nivet
ANALYSIS OF GENETIC VARIABILITY OF GLOBAL DNA METHYLATION IN RESPONSE TO AN EARLY TEMPERATURE STRESS IN RAINBOW TROUT
- 12:00 Jingwei Liu**, Huihua Hu, Stephane Panserat, Lucie Marandel
EXPRESSION PATTERNS OF DNA METHYLTRANSFERASE GENES DURING GAMETOGENESIS AND EARLY DEVELOPMENT IN RAINBOW TROUT
Oncorhynchus mykiss
- 12:20 Atle M. Bones**, Per Winge, Amit K Sharma, Charlotte Volpe, Marianne Nymark
GENOME EDITING OF MARINE MICROALGAE FOR CHARACTERIZATION AND METABOLIC ENGINEERING
- 12:40 LUNCH**
- 14:30 Richard Sayre**, Elena Sineva, Susan Laramore, Tatiana Vinogradova-Shah
ENTERIC BACTERIA EXPRESSING dsRNA TARGETTING ESSENTIAL WSSV GENES PREVENT WHITE SPOT SYNDROM VIRUS (WSSV) IN SHRIMP
Litopenaeus vannamei
- 14:50 Tarik Massucci Toledo**, Ana Pavasovic, Christopher Collet, Peter Prentis
GENE EXPRESSION IN HEPATOPANCREAS AND TAIL MUSCLE ACROSS MOULT STAGES OF THE REDCLAW CRAYFISH *Cherax quadricarinatus*
- 15:10 Krzysztof Jagiello**, Marcin Polonis, Stefan Dobosz, Konrad Ocalewicz
MITOTIC AND MEIOTIC GYNOGENESIS AND TRIPLOIDIZATION OF THE BROOK TROUT *Salvelinus fontinalis* AND EVALUATION OF THE OCCURRING MALFORMATIONS AFTER THOSE PROCESSES
- 15:30 Marcin Polonis**, Krzysztof Jagiello, Stefan Dobosz, Konrad Ocalewicz
ANDROGENESIS IN RAINBOW TROUT *Oncorhynchus mykiss* – IONIZING RADIATION (IR) – INDUCED REDUCTION OF EGG QUALITY?

- 15:50 Nermeen Abass**, Rex Dunham
GROWTH OF GROWTH HORMONE cDNA TRANSGENIC CHANNEL CATFISH *Ictalurus punctatus* IS INFLUENCED BY CONSTRUCT PROMOTER TYPE, FAMILY LINE AND STRAIN
- 16:10 Han Liu**, Hongliang Xu, Weimin Wang
RIBONUCLEASES 1 HAVE ANTIMICROBIAL FUNCTION BOTH *IN VITRO* AND *IN VIVO* IN BLUNT SNOUT BREEM *Megalobrama amblycephala*

BIODIVERSITY, CONSERVATION, ALIEN SPECIES

Sunday, August 26 14:30 - 17:10 Rondelet

Chairs: Fabrice Teletchea, Matthias Halwart

- 14:30 Fabrice Teletchea**, Jean-Nicolas Beisel
HOW FISH AQUACULTURE PRODUCTION HAS EVOLVED IN THE PAST DECADES: TRUE SPECIES DIVERSIFICATION?
- 14:50 Matthias Halwart**, Devin Bartley, Malcolm Beveridge, Simon Funge-Smith, Ruth Garcia Gomez, Daniela Lucente, Graham Mair, Chiara Sirani, Austin Stankus, Xiaowei Zhou, Zhiyi Zhang
THE STATE OF THE WORLD'S AQUATIC GENETIC RESOURCES
- 15:10 Øivind Bergh**, Lars Asplin, Nina Sandlund, Anne D. Sandvik, Joao G. Ferreira, Nick Taylor
IMPACTS OF CLIMATE CHANGE ON NORTH EUROPEAN AQUACULTURE
- 15:30 Sylvie Lapègue**, Serge Heurtebise, Jean-Baptiste Lamy, Florence Cornette, Lionel Dégremont, Emilie Flahauw, Mélodie Chapat, Pierre Boudry, Nicolas Bierne, Pierre-Alexandre Gagnaire
THE PACIFIC AND THE PORTUGUESE CUPPED OYSTERS, A PAIR OF SEMI-ISOLATED SPECIES AS GENOMIC RESOURCES FOR SHELLFISH AQUACULTURE
- 15:50 Amit Savaya-Alkalay**, Papa Demba Ndao, Nicolas Jouanard, Assaf Barki, Eliahu D. Aflalo, Amir Sagi
REPRODUCTIVE BARRIERS BETWEEN *MACROBRACHIUM* SPECIES PERMIT SUSTAINABLE AQUACULTURE AND BIOCONTROL OF SCHISTOSOMIASIS IN AFRICA
- 16:10 Sahar Mejri**, Cameron Luck, Martin Riche, Paul Wills, Rejean Tremblay, Aaron Adams, Jon Shenker
GAINING BETTER INSIGHT INTO THE REPRODUCTIVE PHYSIOLOGY AND EARLY LIFE DEVELOPMENT OF BONEFISH *Albula vulpes*

- 16:30** **Ulyana Alexandrova**, Angelina Firsova, Marina Yaitskaya
THE DEVELOPMENT OF THE REPRODUCTIVE SYSTEM OF AFRICAN CATFISH
Clarias gariepinus IN RAS

MICROBIAL AND MARINE ALGAE IN AQUAFEED

Sunday, August 26 14:30 - 17:10 Sully 2

Chairs: Luisa Valente, Kjell Inge Reitan

- 14:30** **Kjell Inge Reitan**, Luisa M.P. Valente
Short info about the two ERANET projects “Microbial raw materials as source for protein and EPA and DHA for use in aquafeed – MICRO-Feed” and “Improving Bio utilisation of Marine algae as sustainable feed ingredients to increase efficiency and quality of aquaculture production.”
- 14:40** **Inga Marie Aasen**, Helga Ertesvåg, Tonje Bjerkan Heggset, Olav Vadstein, Dominic Nanton, Hüseyin Sevgili
PRODUCTION OF HETEROTROPHIC MICROORGANISMS FOR USE AS A SOURCE OF LONG-CHAIN OMEGA3 FATTY ACIDS IN AQUAFEED
- 14:55** **Helena Abreu**
SEAWEED BIOMASS FOR AQUAFEEDS: AVAILABILITY AND DIFFERENTIATION FACTORS
- 15:10** **Xinxin Wang**
MICROALGAE AS FEED SOURCE FOR AQUACULTURE: INFLUENCE OF ENVIRONMENTAL FACTORS ON LIPID AND PROTEIN COMPOSITION
- 15:30** **Olav Vadstein**, Helga Ertesvåg, Marianne Nymark
MICROBES AS PRODUCTION ORGANISMS OF DHA/EPA: THE NEED FOR STRAIN IMPROVEMENT
- 15:50** **Luisa M.P. Valente**, Sónia Batista, M. Manuela E. Pintado, Flemming Jessen, Francesca Tulli
BIO-UTILISATION OF MACRO- AND MICROALGAE IN EUROPEAN SEA BASS AFTER TECHNOLOGICAL PROCESSING
- 16:10** **Hüseyin Sevgili**, İsa Aydın, Adem Kurtoğlu, Özgür Aktaş, Faruk Pak, Inga. M. Aasen, Kjell Inge Reitan, Miachael Sandmann, Matilde Skogen Chauton, Gamze Turan, Mahir Kanyilmaz
Thraustochytrids, *Phaeodactylum tricornutum* AND *Nannochloropsis oculata* IN DIETS OF JUVENILE EUROPEAN SEA BASS *Dicentrarchus labrax*

16:30 Solveig L. Sørensen, Ateshm Ghirmay, Yangyang Gong, Dalia Dahle, Ghana Vasanth, Mette Sørensen, Viswanath Kiron
 INTESTINAL HEALTH OF ATLANTIC SALMON *Salmo salar* FED WITH MICROALGAE *Nannochloropsis* AND *Tetraselmis*

16:50 Yangyang Gong, Mette Sørensen, Jorge Dias, Solveig L. Sørensen, Ghana K. Vasanth, Dalia Dahle, Viswanath Kiron
 EFFECT OF FEED ADDITIVES ON THE UTILIZATION OF MICROALGAE *Nannochloropsis* sp. FED TO ATLANTIC SALMON *Salmo salar*

FOOD SAFETY

Sunday, August 26 15:30 - 17:10 Sully 1

Chair: Turker Bodur

15:20 Melony Sellars, Jeff Cowley, Dean Musson, Min Rao, Moira Menzies, Brian Murphy
 RNAi ANTIVIRALS FOR SHRIMP AQUACULTURE

15:40 Samwel M. Limbu, Li Zhou, Sheng-Xiang Sun, Mei-Ling Zhang, Zhen-Yu Du
 CHRONIC EXPOSURE TO LOW ENVIRONMENTAL CONCENTRATIONS AND LEGAL AQUACULTURE DOSES OF ANTIBIOTICS CAUSE SYSTEMIC ADVERSE EFFECTS IN NILE TILAPIA *Oreochromis niloticus* AND PROVOKE DIFFERENTIAL HUMAN HEALTH RISK

16:00 Emmanuel Ogueji, Christopher Nwani, Stanley Iheanacho, Christian Mbah, Ogochukwu Okeke, Abubakar Yaji, Robert Onyeneke
 OXIDATIVE STRESS, BIOCHEMICAL, LIPID PEROXIDATION AND ANTIOXIDANT RESPONSES IN *Clarias gariepinus* EXPOSED TO IVERMECTIN DRUG

16:20 Ayofe Mutalib Hammed, Fatai G. Owodeinde, Hakeem A. Fashina-Bombata, Oluwatoyin A. Salami
 CHEMICAL AND MICROBIAL ASSESSMENT OF SOME FRESH WATER FISH SPECIES (*Tilapia zilli*, *Clarias gariepinus*, *Chrysichthys nigrodigitatus* AND *Sarotherodon melanotheron*) IN SELECTED AREAS OF LAGOS STATE, NIGERIA

16:40 Mohamed Mahmoud, Thorsten Tybussek, Mahmoud Magdy, Helene Loos, Maria Wagenstaller, Andrea Buettner
 STATUS UPDATE ON MALODOR FORMATION AND ACCUMULATION SOURCES IN AQUACULTURE

17:00 Anis Somani, Heather Manuel
 COMPREHENSIVE BENEFITS OF DEEPCHILL COOLING FOR SUPERIOR PRESERVATION AND YIELD GAIN IN SHRIMPS

VACCINES AND THERAPEUTANTS

Sunday, August 26 14:30 - 17:10 Einstein Auditorium

Chair: Laurent Dupuis

- 14:30 Chamilani Nikapitiya**, H.P.S.U. Chandrarathna, S.H.S. Dananjaya, Mahanama De Zoysa, Jehee Lee
BACTERIOPHAGE IN THE CONTROL OF PATHOGENIC *E. tarda* IN CULTURED FISH
- 14:50 Samira Sarter**
ONE HEALTH APPROACH ON ANTIMICROBIAL RESISTANCE AND THE PRUDENT USE OF ANTIBIOTICS IN FISH FARMING
- 15:10 Inácio Mateus Assane**, Katia S. Gozi, Gustavo M.R. Valladão, Fabiana Pilarski
COMBINATION OF ANTIMICROBIALS AS AN APPROACH TO REDUCE THEIR USE IN AQUACULTURE: EXAMPLE OF USING THIAMPHENICOL WITH FLORFENICOL AGAINST *Aeromonas hydrophila*
- 15:30 Laurent Dupuis**, Lauke Labrie
EXCIPIENTS IN AQUACULTURE MEDICATION: SURVEY, MECHANISMS OF ACTIONS AND PERSPECTIVES
- 15:50 Nermeen M. Abu-Elala**, Ahmed Samir, Momtaz Wasfy, Magdy Elsayed
EFFICACY OF NANO-ADJUVANTED IMMERSION STREPTOCOCCUS VACCINE IN NILE TILAPIA *Oreochromis niloticus* FINGERLINGS
- 16:10 Kartik Baruah**, Peter Bossier
PLANT-DERIVED COMPOUNDS IN AQUACULTURE HEALTH MANAGEMENT: FROM THE MODES OF ACTION TO PRACTICAL APPLICATION
- 16:30 Chika Ikele**, Bernard Mgbenka, Chioma Ikele
EVALUATION OF PARASITICIDAL POTENTIALS OF *Moringa oleifera* ON THE CONTROL OF *Ichthyophthirius multifiliis* AND ITS KEY LIFE STAGE "THERONTS" ON *Clarias gariepinus* JUVENILES
- 16:50 Sven M. Bergmann**, Matthias Reichert, Christoph Lindenberger, Günter Kotterba, Rainer Buchholz
ANTIVIRAL SUBSTANCES OBTAINED FROM ALGAE USED TO COMBAT AGAINST THE KOI HERPESVIRUS DISEASE (KHVD)

TILAPIA

Sunday, August 26 14:30 - 17:10 Tiberiade

Chair: Hugues de Verdal

SUNDAY

- 14:30** **Kouadio Nanan Kouamé Félix**, Gnabro Ouakoubo Gaston, Aboya Narcisse
STRATEGIES FOR THE MANAGEMENT OF TILAPIA ALEVINS *Oreochromis niloticus* OF BRAILLOUS ORIGIN FOR SUSTAINABLE DEVELOPMENT OF CULTURE OF FISH IN IVORY COAST
- 14:50** **Joachim Kuzimbila Yongo**
NUTRITION, A LIMITING FACTOR FOR PERFORMANCE, WEIGHT GAIN, TILAPIA STRAINS HIGH IN SUB-SAHARAN AFRICA: CASE OF PEASANT FARMING IN THE WEST OF THE DRC
- 15:10** **Kazi Ahmed Kabir**, M.C.J. Verdegem, J.W. Schrama, J.A.J. Verreth, M.J. Phillips
EFFECT OF DIETARY PROTEIN TO ENERGY RATIO ON PERFORMANCE OF NILE TILAPIA AND FOOD WEB ENHANCEMENT IN SEMI-INTENSIVE POND AQUACULTURE
- 15:30** **Heba Abdel-Ghany**, Mohamed Salem
DIETARY ORANGE PEEL AS A GROWTH PROMOTER FOR NILE TILAPIA *Oreochromis niloticus*
- 15:50** **Sara Picón-Camacho**, Corinne Pichou, Peter Zeddah, Alain Le Breton
PHYLOGENETIC COMPARATIVE STUDY AND POPULATION STRUCTURE THROUGH GENOMIC ANALYSIS OF *Streptococcus agalactiae* STRAINS ISOLATED FROM AFRICAN TILAPIA FISH FARMS
- 16:10** **Andrea Elena Pizarro Muñoz**, Renata Barroso
ECONOMIC VIABILITY OF TILAPIA FARMING IN NORTHEAST BRAZIL
- 16:30** **Ting-Bao Yang**, Yin-Yin Zhou, Shuai Zhang
MONOGENEAN SPECIES OF TILAPIAS IN CHINA AND ECOLOGY OF SOME SPECIES IN EXPERIMENTAL SYSTEM
- 16:50** **Regina Edziyie**, Stephen Gyamfi, Kwasi Obirikorang, Emmanuel Frimpong, Daniel Adjei-Boateng
ZOOPLANKTON POPULATIONS IN TILAPIA PONDS FED WITH DIFFERENT DIETS

LIVE FEEDS

Sunday, August 26 14:30 - 17:10 Sully 3

Chair: Mike Schwarz

- 14:30** **Reginald Blaylock**, Adam Daw, Eric Saillant
THE EFFECT OF TEMPERATURE ON THE LIFE SPAN AND REPRODUCTION OF THE COPEPOD *Parvocalanus crassirostris*
- 14:50** **Maren Gagnat**, Taisuke Iizuka, Osamu Takaoka, Björn Ronge, Shukei Masuma
CULTIVATED COPEPODS *Acartia tonsa* IMPROVE SURVIVAL FIVEFOLD AND GROWTH THREEFOLD IN JAPANESE YELLOWTAIL *Seriola quinqueradiata*
- 15:10** **Øyvind J. Hansen**, Velmurugu Puvanendran, Jens P. Jøstensen, Elin Eidsvik, Atle Mortensen, Bjørn Ronge
EARLY INTRODUCTION OF COPEPODS AND DRY DIET DURING START FEEDING PERMANENTLY ENHANCES GROWTH IN FARMED ATLANTIC COD *Gadus morhua*
- 15:30** **Hilke Alberts-Hubatsch**, Jan Beermann, James Matthew Slater
FATTY ACID PROFILE OF MARINE AMPHIPODS FED TERRESTRIAL FEEDSTUFFS AND ITS IMPLICATIONS FOR AQUACULTURE
- 15:50** **Alaa El-Dahhar**
EFFECT OF FEEDING RATE ON SURVIVAL, GROWTH PERFORMANCE AND FEED UTILIZATION OF GILT HEAD SEA BREAM *Sparus urata* LARVAE DURING THE WEANING PERIOD

EAS GENERAL ASSEMBLY

Sunday, August 26 17:15 - 18:00 Sully 3

MONDAY, August 27

FUNCTIONAL INGREDIENTS - CONTINUED

Monday, August 27 09:00 - 10:40 Pasteur Auditorium

Chair: Figueiredo-Silva Claudia



MONDAY

- 09:00** **Pierrick Kersanté**, Guillaume Le Reste, Luxsanawadee Soonngam, Romain Le Hen, Joël Duperray
EFFECTS OF A SUSTAINABLE MIX OF FREE AMINO ACIDS ON FEED INTAKE IN WHITE SHRIMP *Litopenaeus vannamei* JUVENILE REARED IN AQUARIUM
- 09:20** **Norhan E. Saleh**, Elham A. Wassef, Ahmed M. Ashry
EVALUATION OF TAURINE AS A FEED ADDITIVE IN SEA BASS *Dicentrarchus labrax* DIET
- 09:40** **Alvaro Rodriguez**, Cristina Garcia, Antonio Martinez, Gustavo Espelleta
EFFECT OF COMPLEMENTARY FEED WITH EMULSIFIERS PROPERTIES ON THE GROWTH PERFORMANCE AND NUTRIENT UTILISATION IN EUROPEAN SEA BASS *Sparus aurata*
- 10:00** **Vincent Fournier**, Mikael Herault, Kyeong-Jun Lee
NUTRITIONAL AND HEALTH PERFORMANCES OF DIETARY SHRIMP HYDROLYSATE AND KRILL MEAL IN RED SEABREAM *Pagrus major* FED LOW FISH MEAL DIET

AQUACULTURE AND PROSPECTIVE

Monday, August 27 09:00 - 12:50 Sully 3

Chair: Denis Lacroix

- 09.00** **Denis Lacroix**
INTRODUCTION
- 09.15** **Satchi Kaushik**
INDIA
- 09.35** **Kangsen Mai**
CHINA

09.55 Patrick Sorgeloos
VIETNAM

10.15 Geir Lasse Taranger
NORWAY

10.35 BREAK

10.50 Sherif Sadek
EGYPT

11.10 Leonidas Papacharisis
GREECE

11.30 Wagner Cotroni Valenti
BRAZIL

11.50 ROUND TABLE
Questions from the audience
Recommendations for common research priorities for aquaculture, in the world at 2040

SEA CUCUMBER, SEA URCHINS, POLYCHAETES

Monday, August 27 09:00 - 12:50 Tiberiade

Chair: Luisa Valente

09:00 Mark Cyrus, Brett Macey, Donia Wozniak, Sebastiaan de Vos, John Bolton
IMPROVING LARVAL PRODUCTION OF THE COMMERCIALY IMPORTANT SEA URCHIN *Tripneustes gratilla*: SETTLEMENT, METAMORPHOSIS AND POST-SETTLEMENT SURVIVAL

09:20 Leonardo Mantilla-Aldana, Estefania Pereira-Pinto, Pedro Campoy-López, Ricardo Beiras
NEW APPROACH TO A QUANTITATIVE METHOD TO ESTIMATION OF THE GAMETOGENIC CONDITIONS IN THE EDIBLE SEA URCHIN *Paracentrotus lividus* BY IMAGE ANALYSIS

09:40 Filipa Rocha, Luís F. Baião, A. Cristina Rocha, Juliana Gadelha, Ana Oliveira, Manuela Pintado, Francisco Arenas, C. Marisa R. Almeida, Luisa M.P. Valente
GONAD QUALITY AND SAFETY OF TWO WILD POPULATIONS OF SEA URCHIN *Paracentrotus lividus* HARVESTED IN THE NORTH ATLANTIC COAST (PORTUGAL)

- 10:00** **Barbara Loi**, Edoardo Demuru, Gianni Brundu, Maura Baroli, Gemma Giménez Papiol, Andrea Di Biase, Alessio Bonaldo
THE INFLUENCE OF DIET ON GONAD QUALITY IN THE SEA URCHIN *Paracentrotus lividus*
- 10:20** **Sílvia Lourenço**, Ricardo José, Carlos Andrade, Luisa M.P. Valente
GROWTH PERFORMANCE OF SEA URCHIN *Paracentrotus lividus* FED DIETS WITH INCREASING PROTEIN LEVELS
- 10:40** **BREAK**
- 11:10** **Filipa Rocha**, Luís F. Baião, Tiago Sá, Luisa M. P. Valente
DIETARY CAROTENOIDS CAN AFFECT GONAD COLOUR OF SEA URCHIN *Paracentrotus lividus*
- 11:30** **Haiqing Wang**, Inka Seekamp, Arne Malzahn, Andreas Hagemann, Ana Karina Carvajal, Rasa Slizyte, Inger Beate Standal, Aleksander Handå, Kjell Inge Reitan
NUTRITIONAL COMPOSITION OF THE POLYCHAETE *Hediste diversicolor* CULTIVATED WITH LAND-BASED AQUACULTURE WASTE: A POTENTIALLY SUSTAINABLE FEED

SELECTION AND BREEDING PROGRAMMES

Monday, August 27 09:00 - 12:50 Joffre 5

Chair: Matias Medina

- 09:00** **Atle Mortensen**, Øyvind J. Hansen, Richard Johansen, Tove Hansen, Velmurugu Puvanendran
RESULTS FROM THE NATIONAL COD BREEDING PROGRAM BRINGS NEW HOPE FOR COMMERCIAL FARMING OF ATLANTIC COD *Gadus morhua* IN NORWAY
- 09:20** **Anastasia Bestin**, Ana Acin Perez, Frédéric Cachelou, Daniel Guémené, Pierrick Haffray
VERY HIGH GENETIC CORRELATION FOR EGG PRODUCTION TRAITS BETWEEN TWO SUCCESSIVE SPAWNING IN RAINBOW TROUT

- 09:40** **Pierrick Haffray**, Anastasia Bestiin, Florian Enez, Sébastien Courant, Daniel Guémené, Alexandre Desgranges, François Allal, Mathilde Dupont-Nivet, Marc Vandeputte
GENETIC PARAMETERS OF RESISTANCE TO GASTROENTERITIS (RTGE) AND RAINBOW TROUT FRY SYNDROME (RTFS) IN RAINBOW TROUT *Oncorhynchus mykiss* AND THEIR GENETIC CORRELATIONS WITH PRODUCTION TRAITS
- 10:00** **Hugues de Verdal**, Marc Vandeputte, Catherine M. O'Connell, Marie-Laure Bégout, Wagdy Mekkawy, Béatrice Chatain, John A.H. Benzie
MEASURING INDIVIDUAL FEED EFFICIENCY AND ITS CORRELATIONS WITH PERFORMANCES AND AGONISTIC BEHAVIOURS IN JUVENILE NILE TILAPIA *Oreochromis niloticus* REARED IN GROUPS
- 10:20** **Serean Adams**, John Smith, Robin Tervit, Lindsay McGowan, Samantha Gale, J. Taylor, Carol Peychers, Ellie Watts, Julien Vignier
GREENSHELL™ MUSSEL *Perna canaliculus* SPERM CRYOPRESERVATION: APPLICATION IN SELECTIVE BREEDING
- 10:40** **BREAK**
- 11:10** **Maud Alix**, Eva Blondeau-Bidet, Evelyse Grousset, Ainaz Shiranghi, Alain Vergnet, Bruno Guinand, Béatrice Chatain, Viviane Boulo, Jehan-Hervé Lignot
EFFECTS OF FASTING AND REFEEDING ON THE DIGESTIVE PHYSIOLOGY OF SELECTED SEA BASS POPULATIONS
- 11:30** **Mathieu Besson**, François Allal, Béatrice Chatain, Alain Vergnet, Frédéric Clota, Marc Vandeputte
SELECTIVE BREEDING ON TOLERANCE TO FASTING IMPROVES FEED CONVERSION RATIO OF SEA BASS
- 11:50** **John Buchanan**, America Fujimoto, Tiago Hori, Melissa Allen, Jason Stannard
DEVELOPMENT OF A LOW-DENSITY SNP MARKER PANEL IN PACIFIC WHITE SHRIMP *Penaeus vannamei* FOR APPLICATION IN PARENTAGE ASSIGNMENT, DETECTION OF INBREEDING, AND DIVERSITY ASSESSMENT

BIO-FLOC SYSTEMS

Monday, August 27 09:00 - 12:50 Sully 1

Chair: Yoram Avnimelech

- 09:00** **Peter Bossier**, Yoram Avnimelech
LINKING FLOC CHARACTERISTICS TO OPERATIONAL PARAMETERS
- 09:20** **Carlos Pérez-Rostro**, Alfredo Gallardo-Colli, Martha Hernandez-Vergara, Manuel Perez-Fuentes
COMPENSATORY GROWTH OF NILE TILAPIA *Oreochromis niloticus* SUBJECTED TO CYCLIC FASTING AND RE-FEEDING PERIODS IN BIOFLOC SYSTEM
- 09:40** **Felix Sugantham**, S. Ezhilmathi, A. Gopalakannan, M. Menaga
BIOAVAILABILITY OF CRUDE PROTEIN AND LIPID FROM BIOFLOC BASED FEED NUTROFLOC IN INTENSIVE NURSERY CULTURE OF *Penaeus vannamei*
- 10:00** **Nyan Taw**
INTENSIVE SHRIMP FARMING SYSTEMS IN ASIA: COMMERCIAL IMPLEMENTATION OF BIOSECURE AND BIOFLOC PRODUCTION SYSTEMS TO HELP CONTROL SHRIMP FARMING DISEASES
- 10:20** **Adolfo Jatobá**, Joana Hübner, Filipe Antunes da Silva, Esmeralda Chamorro Legarda, Felipe do Nascimento Vieira
GROWTH PERFORMANCE OF AMAZON RIVER PRAWN REARED IN BFT
- 10:40** **BREAK**
- 11:10** **Felipe do Nascimento Vieira**, Esmeralda Legarda, Marco Lorenzo, Matheus Martins, Moisés Poli
PACIFIC WHITE SHRIMP AND NILE TILAPIA INTEGRATION IN BIOFLOC SYSTEM UNDER DIFFERENT FISH-STOCKING DENSITIES
- 11:30** **Vicente Ernesto**, Azmina Goulamaly, Francois Grosse, Yoram Avnimelech
BIOFLOC TECHNOLOGY AS A MEANS TO RECOVER SHRIMP FARM IN MOZAMBIQUE
- 11:50** **Barbara Hostins**, Wilson Wasielesky, Geert Rombaut, Dionéia Cesar, Olivier Decamp, Peter Bossier, Peter De Schryver
MANAGING BIOFLOCS OPERATIONAL PARAMETERS MINIMIZES THE RISK FOR HEPATOPANCREATIC NECROSIS DISEASE (AHPND) OUTBREAKS

MONDAY

- 12:10 Marc Verdegem**, Samara Hutting, Joost van Loo, Johan Schrama, Johan Verreth
MICROORGANISMS IN BIOFLOCS MAKE UNAVAILABLE PHOSPHATE, FIXED IN DIETARY PHYTATE, AVAILABLE FOR NILE TILAPIA
- 12:30 Eric De Muylder**
ADVANTAGES AND DISADVANTAGES OF ADDING CARBON IN INTENSIVE CULTURE OF *Litopenaeus vannamei* WITH BIOFLOCS
- 12:50 LUNCH**
- 14:30 Wilson Wasielesky**, Nathalia Santos, Plínio Furtado, Dionéia César
EVALUATION OF THE USE OF BIOBALLS IN THE NITRIFICATION PROCESS OF PACIFIC WHITE SHRIMP *Litopenaeus vannamei* BIOFLOC TECHNOLOGY CULTURE SYSTEM
- 14:50 Yoram Avnimelech**
SUSPENDED OR LOCALIZED BIOFLOC SYSTEMS: DEFINITION, DATA AND NEED FOR FURTHER RESEARCH

AGRICULTURE / AQUACULTURE CIRCULAR CO-PRODUCTION AND ECO-INTENSIFICATION

Monday, August 27 09:00 - 15:10 Sully 2

Chair: Lionel Dabbadie

- 09:00 Olivier M. Joffre**, Laurens Klerkx, Devi Hermsen, Kazi Ahmed Kabir, Tran Huu Tinh, Marc Verdegem
NUTRITIOUS POND CONCEPT, A PATHWAY TO SUSTAINABLE INTENSIFICATION OF AQUACULTURE SYSTEMS?
- 09:20 Sherif Sadek**, Valerio Crespi
EFFICIENT USE OF RESOURCES FOR THE SUCCESSFUL DEVELOPMENT OF AQUACULTURE IN THE DESERT AND ARID LANDS
- 09:40 Alan Kennedy**, Alexandre Tahar, Ronan Cooney, Sarah Naughton, Conor Behan, Andy Fogarty, Richard Fitzgerald, Neil Rowan, Eoghan Clifford
MOREFISH – ENHANCING PRODUCTION AND SUSTAINABILITY IN IRISH FRESHWATER AQUACULTURE
- 10:00 Alexandre Tahar**, Alan Kennedy, Ronan Cooney, Sarah Naughton, Conor Behan, Emer O'Neill, Siobhan Kavanagh, Neil Rowan, Eoghan Clifford
SUPPORTING THE SUSTAINABLE DEVELOPMENT OF THE IRISH FRESHWATER AQUACULTURE INDUSTRY

- 10:20** **Amon P. Shoko**, Eusebia E. Ulotu, Salome D. Shayo, Mathew O. Silas, Sloans Chimatiro, Nazael Madalla, Rashid Tamatamah
A VALUE CHAIN ANALYSIS OF AQUACULTURE INDUSTRY IN TANZANIA: THE CASE OF FEEDS AND SEEDS AND IMPLICATIONS FOR SECTOR GROWTH
- 10:40** **BREAK**
- 11:10** **Elyne Dugény**, Bruno Petton, Fabrice Pernet
THE INFLUENCE OF SURROUNDING SPECIES ON THE DISEASE RISK OF THE PACIFIC OYSTER *Crassostrea gigas*
- 11:30** **Majid Mohammad Nejad**, Hajimohammad Shirmohammadli
THE POSSIBILITY OF RAISING *Rutilus rutilus caspicus* AND *Rutilus frisii kutum* TOGETHER
- 11:50** **Nepheronia Ogburn**, Suresh Ramraj Subashchandrabose, Damian M. Ogburn, Wayne O'Connor, Megharaj Mallavarapu
COMMERCIAL *Artemia* BIOMASS PRODUCTION SYSTEM USING DISTILLERY AND WINERY WASTES IN AUSTRALIA BASED ON PHILIPPINES PARADIGM
- 12:10** **Konstantin D. Matishov**, Tatiana S. Gridina, Yliana S. Aleksandrova
INFLUENCE OF THE MICROBIOLOGICAL PREPARATION ON AGRICULTURAL CROPS PRODUCED TOGETHER WITH THE HYDROBIONTS VIA AQUAPONIC METHOD IN THE FLOOR-TYPE SYSTEMS
- 12:30** **Türker Bodur**, Esra Okudur
COMPARISON OF GROWTH RATES OF SOME PLANTS IN HYDROPONICS AND AQUAPONICS
- 12:50** **LUNCH**
- 14:30** **Daniele Brigolin**, Mateja Slovec, Andrea Alberto Forchino, Ana Slanatar, Lara Pozzato, Marco Francese, Patricija Pirnat, Andrej Udovc
THE INTERREG ITALY-SLOVENIA PROJECT BLUEGRASS: SUSTAINING AQUAPONICS DEVELOPMENT IN THE AREA
- 14:50** **Lidia Robaina**, Carlos Andrade, Angela M. Pereira Barreto da Veiga Moreno, Carmen Florido de la Nuez, Francisco López del Pino, Marta Jacob Escuariza, Carlos Rodríguez Robaina, Raquel Quiros Pozo, Anaís Ventura Castellano, Sara Ramírez-Bolaños, Juan A. Jiménez Rodríguez, Mariano Chirivella Caballero, Priscila Velázquez Ortuño, Vanesa Raya Ramallo, Jose A. Haroun Tabraue, José Manuel Pérez Alemán, Eduardo Portillo Hahnefeld
R+D+i TOWARDS AQUAPONIC DEVELOPMENT IN THE UP ISLANDS AND THE CIRCULAR ECONOMY (ISLANDAP - INTERREG MAC/1.1 a/207) -- FIRST COLLABORATIVE RESULTS

EATIP-EU: “FEED GLOBALLY – PRODUCE LOCALLY”

Monday, August 27 09:00 - 15:30 Barthez

Chair: Sigi Gruber, Alexandra Neyts

Food security and safety matter. The need for sufficient, safe and nutritious food is rapidly growing on a global scale. Through multi-stakeholder collaboration and industry-driven innovation, European aquaculture has become a highly industrialised and knowledge-intensive sector, with the potential of contributing to the aims set in the “Food from the Oceans” report, the “Food2030” Initiative, and challenges such as the ‘Clean oceans’ related mission presented in the Mazzucato report. The European Research and Innovation Programmes support a range of actions that promote biological, technological and socio-economic developments in aquaculture. These comprise both excellent research, close-to-market innovations, state-of-the-art research infrastructures, capacity building and international collaboration.

As a joint effort, the European Commission and EATiP are setting focus on the impact of European research for the benefit of aquaculture development within Europe as well as worldwide. Through three consecutive sessions, they present some major outcomes of technology and innovation efforts that contribute to tackle the bottlenecks and opportunities in aquaculture towards the overall goal of ensuring food and nutrition security.

09:00 **Alexandra Neyts**, EATiP
Welcome by the EATiP

09:05 **SESSION 1 – Setting the scene: How can more food and biomass be obtained from aquaculture in a way that maximises the benefits for future generations?**

Chair and moderator: Sigi Gruber, DG RTD

Opening and introduction of the session, Sigi Gruber, DG RTD

- Lorella de la Cruz Iglesias, DG MARE
- TOWARDS A SUSTAINABLE AND COMPETITIVE EUROPEAN AQUACULTURE SECTOR: CURRENT STATUS AND FUTURE CHALLENGES
- Karen Fabbri, DG RTD
- FOOD 2030: AQUACULTURE AS A NEW FRONTIER FOR FOOD PRODUCTION
- Gustavo Larrazábal, EATiP
- EATIP: RESEARCH AND DEVELOPMENT AS A DRIVER FOR ACHIEVING THE SECTORS VISION FOR GROWTH

MONDAY

- 09:20** **Carina Keskitalo**, European Commission’s Group of Chief Scientific Advisors
THE ROLE OF MARICULTURE IN PROVIDING MORE FOOD AND BIOMASS FROM THE OCEANS: THE FOOD FROM THE OCEANS SCIENTIFIC OPINION
- 09:30** **Tom Redd**, JPI Oceans
AQUACULTURE IN 2037 – A BACKCASTING FORESIGHT EXERCISE
- 09:40** **Jon Arne Grøttum**, Norwegian Seafood Federation
SEAFOOD 2030 – THINK GLOBALLY, ACT LOCALLY. A CASE FOR SUSTAINABLE AQUACULTURE GROWTH
- 09:50** **Katerina Moutou**, University of Thessaly, Greece
FORMULATE AND POSITION RESEARCH NEEDS IN FOOD 2030
- 10:00** **Marc Vandeputte**, INRA
AQUAEXCEL 2020 – RESEARCH INFRASTRUCTURE KNOWLEDGE OUTPUTS WITH IMPACT
- 10:10** **Arthur Rigaud**, FARNET
AQUACULTURE RELATED FLAG PROJECTS
- 10:20** **Panel discussion** – Moderator: Sigi Gruber
POSITIONING THE ROLE OF AQUACULTURE IN FOOD SECURITY, PUBLIC HEALTH AND CLIMATE CHALLENGES
- 10:40** **COFFEE BREAK**
- 11:10** **SESSION 2 – Aquaculture 4.0: automation, precision farming and data systems**
Chair and Moderator: Synnøve Helland, EATiP

Introducing the session, Synnøve Helland, EATiP
- 11:20** **Frank Børre Pedersen**, DNV-GL
DIGITALISATION AND BLOCKCHAIN AS TOOLS FOR BUILDING TRUST IN FUTURE AQUACULTURE
- 11:30** **Martin Føre**, SINTEF
E-INFRASTRUCTURE SUPPORTING VIRTUAL AQUACULTURE EXPERIMENTS
- 11:40** **Jean-Yves Lebras**, CLS
INNOVATIVE SERVICES TO MONITOR SPATIAL DISTRIBUTION OF AQUACULTURE ACTIVITIES

- 11:50 Project presentations** with focus on impact: how will the project results influence aquaculture developments?
Horizon 2020 projects:
- SPG – Horizon 2020 SME instrument (Stein Åge Davidsen, SFD Seafarm Development)
 - CERES, Horizon 2020-funded project (Pauline Kamermans, Wageningen Marine Research)
 - Q&A
- 12:20 Panel Discussion** – Moderator: Synnøve Helland, EATiP
- 12:50 LUNCH BREAK**
- 14:00 SESSION 3 – Sustainable global aquaculture**
 Chair and Moderator: Patrick Lavens, EATiP
- Introducing the session**, Patrick Lavens, EATiP
- 14:10 Patrick Lavens**, EATiP **Denis Bailly**, University of Brest, Respon-SEA-ble, Horizon 2020 EU-funded project
 COMMUNICATING AQUACULTURE ACROSS THE NORTH-ATLANTIC
- 14:20 David Basset**, EATiP
 TOWARDS A WIN-WIN COOPERATION IN GLOBAL AQUACULTURE
- 14:30 Sigi Gruber**, DG RTD
 FEEDBACK FROM ONGOING WORK IN DIFFERENT EUROPEAN SEA BASINS
- 14:40 Project presentations** with focus on impact: how will the project results influence aquaculture developments?
List of projects:
- SYLFEED – Horizon 2020-Bio based industries Joint Undertaking (Amélie Drouault, Arbiom SAS)
 - Genialg, Horizon 2020 EU-funded project (Philippe Potin, Sorbonne University)
 - Q&A
- 15:00 Panel Discussion** – Moderator: Patrick Lavens, EATiP
 HOW TO PROMOTE INTERNATIONAL COLLABORATION IN A COMPETITIVE MARKET?
- 15:20** Wrap-up and recommendations to feed in the FOOD 2030 initiative.
- 15:30 – COFFEE BREAK**

SOCIO-ECONOMICS

Monday, August 27 09:00 - 17:10 Louisville

Chairs: Ragnar Tveterås, Frank Asche



- 09:00 Gesche Krause**, Jose Perez Agúndez, Lucia Fanning, Cornelia Kreiß, Selina M. Stead, Nardine Stybel
APPLYING SOCIAL INDICATORS TO SUPPORT KNOWLEDGE TRANSFER FOR AQUACULTURE WITHIN THE “BLUE GROWTH STRATEGY”
- 09:20 Carole Engle**, Jonathan van Senten
THE REGULATORY COST BURDEN ON U.S. AQUACULTURE FARMS
- 09:40 Meghna Sinha**, Albiya Arshabi, Bibha Kumari, D.K. Paul
STUDY OF SOCIAL STATUS OF FISHING COMMUNITIES IN PATNA, INDIA
- 10:00 Henri-Joël Niamien K.**, Joseph Kaudhis K., Marc Oswald
GNANAGONFLA: ABOUT INVENTIVENESS OF FORGOTTEN LAND, AN EXAMPLE OF UNEXPECTED DEVELOPMENT OF MERCHANT FAMILY FISH FARMING
- 10:20 Ruth Pincinato**, Atle Oglend, Renata Melon Barroso, Andrea Munoz
TAKING A RIDE WITH COD -- NORWEGIAN SALMON IN THE BRAZILIAN SEAFOOD MARKET
- 10:40 BREAK**
- 11:10 Marianna Cavallo**, Jose A. Perez Agundez
REVIEWING PUBLIC CONSULTATION MECHANISMS ENHANCING SOCIAL ACCEPTABILITY OF AQUACULTURE IN THE MEDITERRANEAN SEA
- 11:30 Katia Frangoudes**, Maiwenn Paul
UNDERSTANDING THE ROOTS OF SOCIAL PROTESTS AGAINST MARINE FARMING DEVELOPMENT IN BRITTANY FRANCE
- 11:50 Cecile Brugère**, Meryl Williams
WE R... WOMEN IN AQUACULTURE: OVERCOMING WOMEN'S INVISIBILITY AND GENDER INEQUALITIES IN AQUACULTURE
- 12:10 Rodrigue Yossa**
MANAGING AQUACULTURE PROJECTS

- 12:30** **Cecile Brugere**, William Clark, K. Padmakumar
 WHAT MOTIVATES FISH FARMERS' CHOICE FOR FISH FEED IMPROVED WITH NON-CONVENTIONAL INGREDIENTS? INSIGHTS FROM THE THEORY OF PLANNED BEHAVIOUR, WITH AN APPLICATION TO POND FARMERS IN INDIA
- 12:50** **LUNCH**
- 14:30** **Anang Hari Kristanto**, Tri Heru Prihadi, Brata Pantjara, Jacques Slembrouck, Jean-Christophe Avarre
 AN OVERVIEW OF AQUACULTURE IN INDONESIA
- 14:50** **Debib Rida**
 THE COMPANY SPECIALIZES IN FISHING TO FIND COMPANIES SPECIALIZED IN AQUACULTURE TO BUY EQUIPMENT
- 15:10** **Thanasis Arvanitis**, Kostas Seferis, Nikos Theiakoulis, Konstantinos Bovolis, Tassos Sarigiannis
 BLUE MINER CLOUD BASED PLATFORM FOR AQUACULTURE ANALYTICS
- 15:30** **Zifei Liu**
 RESEARCH ON "THREE FISHERIES" DEVELOPMENT BASED ON THE RURAL VITALIZATION STRATEGY
- 15:50** **Rocio Robles**, Constantinos C. Mylonas
 "DIVERSIFY": EXPLORING THE BIOLOGICAL AND SOCIO-ECONOMIC POTENTIAL OF NEW/EMERGING CANDIDATE SPECIES FOR THE EXPANSION OF THE EUROPEAN AQUACULTURE INDUSTRY
- 16:10** **Yuko Onozaka**, Jonas Torrissen
 ENVIRONMENTAL HALO EFFECTS AND CROSS-PRODUCTS PERCEPTION SPILLOVERS: A CASE OF FARMED SALMON AND WILD-CAPTURED COD

WELFARE

Monday, August 27 09:00 - 15:10 Antigone 3

Chair: Sonia Rey Planellas

- 09:00** **Ingrid Lein**, Jelena Kolarevic, Bjarne Gjerde, Åsa Marie Espmark
 PERFORMANCE AND WELFARE IN BALLAN WRASSE *Labrus berggylta* AND LUMPFISH *Cyclopterus lumpus* REARED AT DIFFERENT LIGHT REGIMES
- 09:20** **Maureen A. Ellis**, Susan Jarvis, Sonia Rey, James F. Turnbull
 THE USE OF ENVIRONMENTAL ENRICHMENT TO REDUCE FIN DAMAGE IN FARMED ATLANTIC SALMON *Salmo salar*

- 09:40 Peter Luft**, Raphael Gebhard, Ralf Bochert
ENCOUNTERING THE THERMAL PREFERENCE OF MARAENA WHITEFISH
Coregonus maraena REARED IN AQUACULTURE
- 10:00 Malthe Hvas**, Ole Folkedal, Frode Oppedal
THE USE OF SWIM TUNNEL STUDIES IN DEFINING ENVIRONMENTAL
THRESHOLDS FOR ATLANTIC SALMON AND CLEANERFISH IN EXPOSED
AQUACULTURE
- 10:20 Lluís Tort**, Ali R. Khansari, Mariana Teles, Joan C. Balasch, Eva Vallejos-Vidal,
David Parra, Felipe Reyes-López
THE VARIABILITY OF STRESS AND IMMUNE RESPONSES IN FISH
SUBJECTED TO STRESSORS: EVIDENCES FROM PHYSIOLOGICAL AND
GENOMIC DATA IN THREE MODEL SPECIES
- 10:40 BREAK**
- 11:10 Sébastien Alfonso**, Didier Leguay, Lucette Joassard, Christine Jarc,
Xavier Cousin, Béatrice Chatain, Marie-Laure Bégout
BEHAVIORAL AND PHYSIOLOGICAL RESPONSES TO HYPOXIA, HIGH TOTAL
AMMONIA NITROGEN (TAN) CONCENTRATION IN EUROPEAN SEA BASS
Dicentrarchus labrax
- 11:30 Bastien Sadoul**, Isabelle Leguen, Sébastien Alfonso, Benjamin Geffroy,
Béatrice Chatain, Patrick Prunet, Marie-Laure Bégout
CONSISTENCY IN RISK TAKING TESTS THROUGHOUT LIFE AND
CHALLENGING SITUATIONS
- 11:50 Sébastien Alfonso**, Benjamin Geffroy, Bastien Sadoul, Lucette Joassard,
Manuel Gesto, Béatrice Chatain, Marie-Laure Bégout
STRESS COPING-STYLE IN EUROPEAN SEA BASS *Dicentrarchus labrax*:
FROM GENES TO PHYSIOLOGY AND BEHAVIOUR
- 12:10 Iciar Martinez**, Harkaitz Eguiraun, Oskar Casquero, Asgeir J. Sørensen
FISH WELFARE: REDUCING THE NUMBER OF FISH IN EXPERIMENTS WITH
SHOALING SPECIES
- 12:30 Daniel Wright**, Tim Dempster, Lars Stien, Frode Oppedal
TAGGING EFFECTS ON ATLANTIC SALMON IN DEPTH-MODIFIED CAGES
- 12:50 LUNCH**
- 14:30 Mahmoud Eltholth**, Sonia Rey, William Leschen, Simon Mackenzie,
Radi Mohammed, Abdallah Salah, Ahmad Hamza, Wael Eltras, David Little
PARTICIPATORY HEALTH MANAGEMENT STRATEGY DEVELOPMENT FOR
AQUACULTURE IN EGYPT: A NOVEL APPROACH FOR POND DESIGN

14:50 Douglas Waley, Natasha Boyland, Krzysztof Wojtas
CONSUMER ATTITUDES TO FISH WELFARE IN EUROPEAN SOCIETY

MICRO AND MACRO ALGAE CULTURE

Monday, August 27 09:00 - 17:10 Einstein Auditorium

Chair: Aleksander Handa



- 09:00 Cecilia Biancacci**, Gordon McDougall, John Day, Michele Stanley
THE APPLICATION OF A LAB SCALE PHOTOBIOREACTOR FOR LABORATORY CULTIVATION OF *Osmundea pinnatifida*
- 09:20 Henrice Jansen**, Marit Nederlof, Ingrid Van der Meer, Adrie Van der Werf
PERFORMANCE OF FIVE ULVA STRAINS: PRODUCTIVITY, CHEMICAL COMPOSITION AND NUTRIENT DYNAMICS AND SELECTION CRITERIA FOR FARMING PRACTICES AND ECOSYSTEM INTERACTIONS
- 09:40 Ana Nobre**, Luisa M.P. Valente, Maria H. Abreu, Rui Pereira, Amir Neori
DEMONSTRATION OF A NITROGEN BUDGET MODEL TO ASSESS WATER RENEWAL RATES AND NITROGEN LIMITATION IN COMMERCIAL SEAWEED FARMS
- 10:00 Jorunn Skjermo**, Aires Duarte, Silje Forbord, Kristine Steinhovden, Torfinn Solvang, Trond Størseth, Aleksander Handa
OPTIMIZING OF WINGED KELP *Alaria esculenta* HATCHERY CONDITIONS
- 10:20 Torfinn Solvang**, Morten Omholt Alver, Emil Scott Bale
STANDARDIZED PRODUCTION OF KELP; FROM DEVELOPMENT OF HATCHERY TOOLS TO THE SEAFARM CONCEPT SPOKe
- 10:40 BREAK**
- 11:10 Silje Forbord**, Guri Ellila Brodahl, Sanna Matsson, Jorunn Skjermo, Ole Jacob Broch, Morten Omholt Alver, Torfinn Solvang, Saifullah Saifullah, Kristine Braaten Steinhovden, Solveig Foldal, Yngvar Olsen, Aleksander Handa
A NORWEGIAN CULTIVATION PROGRAM FOR THE SUGAR KELP *Saccharina latissima*

MONDAY

- 11:30 Sanna Matsson**, Reinhold Fieler, Hartvig Christie, Silje Forbord, Bodil Bluhm, Anna Metaxas, Aleksander Handå
BIOFOULING ON CULTIVATED KELP: REGIONAL AND LATITUDINAL VARIATION IN NORWAY
- 11:50 Ole Jacob Broch**, Morten Omholt Alver, Trine Bekkby, Hege Gundersen, Aleksander Handå, Jorunn Skjermo, Kasper Hancke
THE POTENTIAL FOR KELP *Saccharina latissima* CULTIVATION IN NORWAY
- 12:10 Kasper Hancke**, Ole Jacob Broch, Trine Bekkby, Yngvar Olsen, Reinhold Fieler, Hege Gundersen, Morten Omholt Alver, Hartvig Christie
POTENTIAL IMPACTS OF INDUSTRIAL-SCALE KELP FARMING ON COASTAL ECOSYSTEMS
- 12:30 Inga Marie Aasen**, Ingrid Sandbakken, Michael Roleda, Jorunn Skjermo, Åshild Krogdahl
PROCESSING OF BROWN ALGAE FOR UTILISATION AS ANIMAL AND FISH FEED, AND INTEGRATION OF THE PRODUCTION IN A SEAWEED BIOREFINERY
- 12:50 LUNCH**
- 14:30 Corinna Dubischar**, Maria Brandmann, Jan Tebben, Joachim Henjes, Tilmann Harder
THE USE OF MICRO- AND MACROALGAE AS NUTRACEUTICALS, WITH SPECIAL EMPHASIS ON NEUROPROTECTIVE PROPERTIES OF ALGAL METABOLITES – PROJECT OUTLINE
- 14:50 Francisca Brito**, Gabriela Sousa, Rui Pereira, Helena Abreu, Anake Kijjoo, Leonardo Magnoni
ANTIOXIDANT POTENTIAL OF *Gracilaria* sp. AGAR EXTRACTION WASTE
- 15:10 Sander van den Burg**, Ana Daniel, Ana Dias, Liliana Alves, Roel Helmes, Gohar Nuhoff-Isakhanyan
TECHNO-ECONOMIC AND LIFE-CYCLE ASSESSMENT OF TWO NEW VALUE CHAINS FOR EUROPEAN SEAWEEDS
- 15:30 Natacha Nogueira**, Nereida Cordeiro
LIPID AND FATTY ACID COMPOSITION OF *Chlorella autotrophica* (CHLOROPHYTA) GROWN OUTDOORS IN TWO DIFFERENT PHOTOBIOREACTORS
- 15:50 Brett Macey**, John J. Bolton, Kris de Jager
MICROBIOME OF ULVA GROWN IN ABALONE EFFLUENT WATER: IS THEIR A DISEASE RISK ASSOCIATED WITH ITS USE AS AN AQUAFEED?

MOLLUSCS - CONTINUED

Monday, August 27 09:00 - 17:10 Antigone 1

Chair: Aad Smaal

- 09:00 Jasper van Houcke**, Pim van Dalen, Wessel Bakhuizen, Jozef Linssen, Joop Luten
TAILOR-MADE SEAFOOD: OYSTER REFINEMENT AS A TOOL OF OVERCOMING CONSUMER BARRIERS
- 09:20 Leire Arantzamendi**, Luis Lagos, Izaskun Zorita
EFFECT OF DENSITY ON THE GROWTH AND SURVIVAL OF PACIFIC OYSTER *Crassostrea gigas* REARED IN WATERS OF THE BASQUE COAST (SE BAY OF BISCAY)
- 09:40 Eva Hartog**, Tony van der Hiele, Jacob Capelle, Pauline Kamermans
EFFECT OF INUNDATION TIME ON GROWTH, QUALITY AND SURVIVAL OF PACIFIC OYSTER *Magallana gigas* FOR SITE-SPECIFIC (OFF-BOTTOM) AQUACULTURE IN THE OOSTERSCHELDE, THE NETHERLANDS
- 10:00 Corinne Audemard**, Tal Ben-Horin, Lisa Calvo, Kimberly Reece, Dave Bushek
INFLUENCE OF AERIAL EXPOSURE AT LOW TIDE ON CONCENTRATIONS OF HUMAN-PATHOGENIC VIBRIOS IN OYSTERS CULTURED IN THE INTERTIDAL ZONE
- 10:20 Marie-Agnès Travers**, Leila Parizadeh, Céline Garcia, Philippe Haffner, Lionel Degremont, Frédérique Le Roux
ECOLOGICALLY REALISTIC MODEL OF INFECTION FOR EXPLORING THE HOST DAMAGE CAUSED BY *Vibrio aestuarianus*
- 10:40 BREAK**
- 11:10 Morgan Smits**, Adeline Bidault, Sebastien Artigaud, Serena Ferraresso, Luca Bargelloni, Christine Paillard
GENOMIC FACTORS UNDERLYING RESISTANCE TO BROWN RING DISEASE IN THE MANILA CLAM *Ruditapes philippinarum*
- 11:30 Pierre Boudry**, Sébastien Lachambre, Sabine Roussel, Sylvain Huchette, Kyme Chenevert, Christophe Lambert, Jérôme Bugeon, Anastasia Bestin, Romain Morvezen, Florian Enez, Pierrick Haffray
MIXED-FAMILY ESTIMATION OF GENETIC PARAMETERS OF GROWTH, MORPHOLOGIC, IMMUNE AND BEHAVIORAL TRAITS IN THE EUROPEAN ABALONE *Haliotis tuberculata*

- 11:50** **Julien Vignier**, Serean Adams, Zoe Hilton, Norman Ragg, Hannah Mae, Samantha Gale, Aditya Kesarcodi-Watson, Mark Camara, Nick King, Xavier Pochon, Kirsty Smith, Emmanuel Malpot, Tim Young, Andrea Alfaro, David Burritt, Jane Symonds
AN OVERVIEW OF PACIFIC OYSTER RESEARCH IN NEW ZEALAND
- 12:10** **Florian Enez**, Romain Morvezen, Jean-Baptiste Lamy, Lionel Dégremont, Daniel Guémené, Rachid Mahla, Lucie Genestout, Anastasia Bestin, Lucie Bouckellyoen, Fiz Da Costa, Emilie Vétois, Adeline Lange, Sylvie Lapègue, Pierrick Haffray
MASS SELECTION WITH FACTORIAL MATING DESIGNS AND DNA-PARENTAGE ASSIGNMENT IS USABLE TO IMPROVE SURVIVAL TO SUMMER MORTALITY IN PACIFIC OYSTER *Crassostrea gigas*
- 12:30** **Marion Richard**, Beatrice Bec, Charles Vanhuysse, Sebastien Mas, David Parin, Camila Chantalat, Patrik Le Gall, Annie Fiandrino, Franck Lagarde, Serge Mortreux, Vincent Ouisse, Anaïs Degut, Elise Hatey, Martine Fortune, Emmanuelle Roque d'orbcastel, Gregory Messiaen, Dominique Munaron, Myriam Callier, Jocelyne Oheix, Valérie Derolez, Behzad Mostajir
MICROBIAL FOOD WEB STRUCTURE CHANGES IN INTERACTION WITH JUVENILE OYSTERS DURING MORTALITY EPISODE IN THE THAU LAGOON (FRANCE)
- 12:50** **LUNCH**
- 14:30** **Ramón Filgueira**, Cécile Vimond, Laura Steeves
DOES PUMPING RATE AFFECT PARTICLE RETENTION EFFICIENCY IN BIVALVES? THE CASE OF OYSTERS AND MUSSELS
- 14:50** **Aspasia A. Steriotti**, Maria A. Zaimaki, John A. Theodorou
FEEDING BEHAVIOR AND PSEUDO-FAECES PRODUCTION OF MEDITERRANEAN MUSSEL *Mytilus galloprovincialis* AT INDOOR CONDITIONS
- 15:10** **Ana Nobre**, Ricardo Pires, Filipe Soares, João G. Ferreira, François Hubert, Luisa M.P. Valente
A TOOL FOR SEED STOCK MANAGEMENT IN COMMERCIAL OYSTER NURSERIES
- 15:30** **Rebeca Moreira**, Alejandro Romero, Raquel Aranguren, Beatriz Novoa, Antonio Figueras
IS THE INVASIVE MUSSEL *L. securis* A RISK FOR THE PRODUCTION OF *M. galloprovincialis*?

- 15:50 Daniele Brigolin**, Erika Maria Diletta Porporato, Fabio Pranovi, Roberto Pastres
MEDITERRANEAN MUSSEL GROWTH UNDER CLIMATE CHANGE: A MODELLING STUDY CARRIED OUT IN THE NORTHERN ADRIATIC SEA
- 16:10 Joao Ferreira**, Joao P. Nunes, Joao Lencart e Silva, Alhambra Cubillo, Heather Moore, Adele Boyd, Matt Service, Changbo Zhu
VALUATION OF REGULATORY ECOSYSTEM SERVICES FROM SHELLFISH FARMING
- 16:30 Aad Smaal**, Joao Ferreira, Jon Grant, Jens Petersen, Oivind Strand
MORE WITH MOLLUSCS
- 16:50 Tony van der Hiele**, Jacob Capelle, Kathrin Poser, Lazaros Spaias, Luca van Duren
USING EARTH OBSERVATION DATA AS A TOOL FOR THE OPTIMIZATION OF GROWTH ON MUSSEL BOTTOM CULTURE FARMS

IMMUNOLOGY AND PATHOLOGY - CONTINUED

Monday, August 27 09:00 - 17:10 Rondelet

Chair: Nerea Roher

- 09:00 Jinliang Zhao**, Ruiqi Zhang, Yueyue Hao, Xiaoying Cao, Shoujie Tang, Yan Zhao
RETINA DEVELOPMENT OF THE MANDARRIN FISH *Siniperca chuatsi* AT THE LARVAL AND JUVENILE STAGE
- 09:20 Parisa Norouzitallab**, Kartik Baruah, Daisy Vanrompay, Peter Bossier
INNATE IMMUNITY OF THE BRINE SHRIMP *Artemia* SHOWS LONG-LASTING ANTI-BACTERIAL FEATURES: PHENOMENON VERIFIED DURING A TRANSGENERATIONAL STUDY
- 09:40 Magalí Rey**, Rebeca Moreira, Beatriz Novoa, Antonio Figueras
REPROGRAMMING OF *M. galloprovincialis* HEMOCYTES TRANSCRIPTOME AFTER *V. splendidus* INFECTION
- 10:00 Caroline Montagnani**, Maxime Lafont, Bruno Petton, Julien de Lorgeril, Manon Fallet, Agnès Vergnes, Jeremie Vidal-Dupiol, Yannick Gueguen, Cristian Chaparro, Eve Toulza, Christoph Grunau, Benjamin Gourbal, Guillaume Mitta, Celine Cosseau
HOW TO TRAIN YOUR OYSTER? A STORY OF IMMUNE SHAPING AND PRIMING IN THE PACIFIC OYSTER *Crassostrea gigas*

- 10:20** **Guillaume Mitta**, Julien de Lorgeril, Aude Lucasson, Bruno Petton, Eve Toulza, Caroline Montagnani, Camille Clerissi, Jeremie Vidal-Dupiol, Cristian Chaparro, Richard Galinier, Jean-Michel Escoubas, Philippe Haffner, Lionel Dégremont, Guillaume M. Charrière, Maxime Lafont, Abigaïl Delort, Agnès Vergnes, Marlène Chiarello, Tristan Rubio, Marc Leroy, Adeline Pérignon, Denis Régler, Marianne Alunno-Bruscia, Pierre Boudry, Frédérique Le Roux, Delphine Destoumieux-Garzon, Yannick Gueguen
CRACKING THE CODE OF PACIFIC OYSTER MORTALITY SYNDROME
- 10:40** **BREAK**
- 11:10** **Nerea Roher**, Jie Ji, David Ramos-Vicente, Carlos Herrera, Enric Navas, José Miguel Lizcano, Jordi García-Fernández, Hector Escrivá, Àlex Bayés
CHARACTERIZATION OF THE TLR FAMILY IN *Branchiostoma lanceolatum* AND DISCOVERY OF A NOVEL TLR22 INVOLVED IN dsRNA RECOGNITION IN AMPHIOXUS
- 11:30** **Maria Angéles Esteban**, Barbara Rossi, José María García-Beltrán, Alberto Cuesta, Benedetta Tugnoli, Andrea Piva, Ester Grilli
IN VITRO STUDY OF A DOSE- AND TIME- EFFECT RESPONSE OF A COMBINATION OF ORGANIC ACIDS AND NATURE-IDENTICAL COMPOUNDS ON GILT HEAD SEABREAM HEAD-KIDNEY LEUCOCYTES
- 11:50** **Shankar Chandra Mandal**, Emma Carrick, Manfred Weidmann, Simon MacKenzie, Amaya Albalat
TRIGGERING OF PROTEIN PHOSPHORYLATION IN RAINBOW TROUT *Oncorhynchus mykiss* EPITHELIAL CELL LINE RTGILL-W1 BY VIRAL AND BACTERIAL PAMPS
- 12:10** **Margarita Álvarez Rodríguez**, Patricia Pereiro, Felipe E. Reyes-López, Lluís Tort, Antonio Figueras, Beatriz Novoa
ANALYSIS OF THE LONG-LIVED RESPONSE INDUCED BY IMMUNOSTIMULANTS AND EFFECT ON A VIRAL INFECTION IN ZEBRAFISH *Danio rerio*
- 12:30** **Savitree Ritchuay**, Simon Mackenzie
CHARACTERISATION OF PAMP-PRR INTERACTIONS IN NILE TILAPIA *Oreochromis niloticus* USING A MACROPHAGE PRIMARY CELL CULTURE
- 12:50** **Marta Librán Pérez**, María M. Costa, Antonio Figueras, Beatriz Novoa
β-GLUCANS ADMINISTRATION INDUCES METABOLIC CHANGES AND DIFFERENTIAL SURVIVAL RATES AFTER A BACTERIAL OR VIRAL INFECTION IN TURBOT *Scophthalmus maximus*

13:10 LUNCH

- 14:30 Paolo Ronza**, Diego Robledo, Ana Paula Losada, Roberto Bermúdez, Belén G. Pardo, María Isabel Quiroga, Paulino Martínez
TRANSCRIPTOME ANALYSIS OF TURBOT *Scophthalmus maximus* THYMUS IN RESPONSE TO INFECTION BY *Enteromyxum scophthalmi* (MYXOZOA)
- 14:50 Yuanxing Zhang**, Dahai Yang, Qin Liu
UNLOCKING THE FISH NON-CANONICAL INFLAMMASOME ACTIVATION IN RESPONSE TO INFECTION
- 15:10 Felipe E. Reyes-Lopez**, Johan Aerts, Eva Vallejos-Vidal, Bart Ampe, Kristof Dierckens, Lluís Tort, Peter Bossier
ASSOCIATION BETWEEN INNATE IMMUNITY AND CORTISOL RELEASE IN GNOTOBIOTIC FULL-SIBLING EUROPEAN SEA BASS *Dicentrarchus labrax* LARVAE CHALLENGED WITH *Vibrio anguillarum*
- 15:30 Maud Alix**, Denis Saulnier, Eric Gasset, Margaux Crusot, Denis Coves, Agnes Bardon-Albaret, Alexandre Bantz, Cassandre Certain, Jehan-Hervé Lignot, Patricia Cucchi
THE TENACIBACULOSIS IN THE TROPICAL ORBICULAR BATFISH *Platax orbicularis* HIGHLIGHTS ON THE TRADE-OFF IN THE GUT BETWEEN IMMUNITY, OSMOREGULATION AND DIGESTION
- 15:50 Marina Machado**, R. Azeredo, F. Fontinha, A. Domingues, S. Fernandez-Boo, L.E.C Conceição, J. Dias, N.M.S. dos Santos, B. Costas
METHIONINE AND TRYPTOPHAN DIETARY SUPPLEMENTATION INDUCE OPPOSITE EFFECTS ON THE EUROPEAN SEA BASS *Dicentrarchus labrax* IMMUNE RESPONSE AND DISEASE RESISTANCE
- 16:10 Isabelle Arzul**, Delphine Serpin, Bruno Chollet, Juliette Gaillard, Christine Dubreuil, Mathilde Noyer, Lydie Canier, Céline Garcia
DIVERSITY OF THE PROTOZOAN PARASITE *Marteilia refringens* IN MARINE BIVALVES IN EUROPE
- 16:30 Jean-Baptiste Lamy**, Tristan Renault, Antoine Bietry, Nicole Faury, Steeve Webb, Jean-François Pepin, Benjamin Morga
UNSUSPECTED OSHV-1 GENOMIC DIVERSITY AT INTER- AND INTRA-HOST LEVEL
- 16:50 Wael Eltras**, Bahadır Emre, Mahmoud Eltholth, Radi Mohammed, Ahmed Hamza, Abdullah Salah, Sonia Rey-Planellas, Simon Mackenzie, David Little, William Leschen
CURRENT AND PAST STATUS OF TILAPIA FARMERS IN KAFR EL SHEIK GOVERNORATE, EGYPT, WITH SPECIAL REFERENCE TO FARM PERFORMANCE AND FISH HEALTH ISSUES

FEED ADDITIVES

Monday, August 27 11:10 - 17:10 Pasteur Auditorium

Chair: Torunn Forberg



- 11:10** **Norhan Saleh**, Elham Wassef, Shymaa Shalaby
THE ROLE OF DIETARY ASTAXANTHIN IN EUROPEAN SEA BASS
Dicentrarchus labrax GROWTH, IMMUNITY, ANTIOXIDANT COMPETENCE AND STRESS TOLERANCE
- 11:30** **Manuela Parini**, Alessio Paoli
1-MONOGLYCERIDES OF SHORT- AND MEDIUM-CHAIN FATTY ACIDS: AN INNOVATIVE APPROACH TO CONTROL *Lactococcus garvieae* IN RAINBOW TROUT, *Streptococcus agalactiae* AND *Streptococcus iniae* IN TILAPIA
- 11:50** **Alessio Bonaldo**, Luca Parma, Sara Ciulli, Enrico Volpe, Barbara Rossi, Andrea Piva, Matteo Soverini, Federica D'Amico, Marco Candela, Pier Paolo Gatta, Ester Grilli
EFFECTS OF INCREASING LEVEL OF DIETARY ORGANIC ACIDS AND NATURE-IDENTICAL COMPOUNDS ON GROWTH, INTESTINAL IMMUNE PARAMETERS AND GUT BACTERIAL COMMUNITIES OF EUROPEAN SEA BASS *Dicentrarchus labrax* JUVENILES
- 12:10** **Benedict Standen**, Carina Schieder, Rui Goncalves
ARE ESSENTIAL OILS REALLY ESSENTIAL; THE FISH MEAL DILEMMA
- 12:30** **Nejdet Gültepe**
ASSESSMENT OF THE EFFECTS OF D-LIMONENE ON THE HEMATOLOGICAL AND BIOCHEMICAL BLOOD PARAMETERS OF RAINBOW TROUT
Oncorhynchus mykiss
- 12:50** **Alex Diana**, Michael Wilhelm
BACTERIOSTATIC ACTIVITY OF PHYTOGENIC FLAVONOIDS AND BENEFICIAL EFFECTS ON GROWTH AND SURVIVAL OF RED NILE TILAPIA DURING SEX REVERSAL
- 13:10** **LUNCH**
- 14:30** **Isabel Reis Batista**, Joachim Henjes, Matthew Slater
THE USE OF MARENININE IN AQUACULTURE – MUCH MORE THAN JUST GREENING

- 14:50 Virak Visudtiphole**, Metavee Phromson, Siriporn Tala, Phimsucha Bunphimpapha, Kanchana Sittikankaew, Sopacha Arayamethakorn, Sita Preedanon, Waraporn Jangsutthivorawat, Sage Chaiyapechara, Panida Unagul
EFFECTS OF LONG-CHAIN POLYUNSATURATED FATTY ACID FORTIFICATION USING *Aurantiochytrium limacinum* BCC52274 ON GROWTH AND HEALTH OF POST LARVAL PACIFIC WHITE SHRIMP *Litopenaeus vannamei*
- 15:10 Simon Roques**, C. Deborde, N. Richard, S. Skiba-Cassy, A. Moing, B. Fauconneau
1H-NMR METABOLOMIC INVESTIGATION OF THE EFFECT OF ALTERNATIVE DIETS ON RAINBOW TROUT PLASMA PROFILES
- 15:30 Catherine Pujol-Baxley**
PROTEINplus: A BIOTECHNOLOGY PLATFORM TO MEET THE NEEDS OF AQUACULTURE
- 15:50 Adejoke A. Adewumi**, Egun O. Malomo, Adekunle I. Adebayo
UTILIZATION OF DIFFERENT PORTIONS OF CASSAVA ROOT AS ENERGY SOURCE IN THE DIET OF THE NILE TILAPIA *Oreochromis niloticus*
- 16:10 Alberto J.P. Nunes**, Adhemar Rodrigues Oliveira-Neto, Karthik Masagounder
REDUCING CRUDE PROTEIN LEVELS IN THE DIETS OF JUVENILE *Litopenaeus vannamei* THROUGH SUPPLEMENTATION OF ESSENTIAL AMINO ACIDS
- 16:30 Maarten Jay van Schoonhoven**
AQUACULTURE FEEDS AND THE RISK OF MYCOTOXINS
- 16:50 Sjo Zwart**, Simeon Deguara
EFFECTS OF ALIPHOS® MONOCAL AND WINDMILL® AQUAPHOS ON PERFORMANCE AND PHOSPHORUS RETENTION IN EUROPEAN SEA BASS *Dicentrarchus labrax*

OFF THE SHELF SOLUTIONS FOR FINFISH AND SHELLFISH SELECTIVE BREEDING

Development of biological resources for the selective breeding of shellfish and finfish

Monday, August 27 14:30 - 17:10 Sully 3

Chair: Christopher Robert Bridges

Programme:

14:30 Chairman's Introduction Company Forum / SLIDO Instructions – Questions and online polls

14:40 **Keitaro Kato**, Aquaculture Research Institute, Kindai University
BREEDING AND INDUSTRIALIZATION IN MARINE FISH AQUACULTURE IN KINDAI UNIVERSITY, JAPAN

15:10 **Antonio Coli**, Selonda Aquaculture SA
INDUSTRY REQUIREMENTS FOR SELECTIVE BREEDING SEA BREAM AND SEA BASS – THE MEDITERRANEAN PERSPECTIVE

15:30 **Stylianios Kyriakidis**, Christopher Hollenbeck and Ian A. Johnston (University of St Andrews, UK)
PIPELINE FOR HIGH THROUGHPUT AMPLICON SEQUENCING OF HAPLOTYPES FOR PARENTAGE ASSIGNMENT IN AQUACULTURE BREEDING

15:50 **BREAK**

16:20 **Ian Johnston** (Xelect Ltd, St Andrews, Scotland)
OFF THE SHELF SOLUTIONS FOR BROODSTOCK GENETICS – A VISION FOR THE FUTURE

16:40 **Chris Bridges** (HHU and TUNATECH)
ORAL CONTRIBUTIONS and ROUND TABLE DISCUSSION – SLIDO QUESTIONS: ONLINE AND OFFLINE

17:00 **CLOSING REMARKS**

MONDAY

ESCAPEES: CAUSES, CONSEQUENCES AND PREVENTION

Monday, August 27 14:30 - 17:10 Tiberiade

Chair: Sten Karlsson

- 14:30** **Türker Bodur**
MORPHOLOGICAL DISCRIMINATION OF FARMED AND WILD GILT HEAD
SEA BREAM *Sparus aurata* (L. 1753) POPULATIONS OF TURKISH
MEDITERRANEAN COAST
- 14:50** **Ian Bradbury**, Emma Sylvester, Brendan Wringe, Steven Duffy, Ben Perriman,
Shahinur Islam, Ian Fleming
DIRECT GENETIC INTERACTIONS BETWEEN WILD AND ESCAPED FARMED
ATLANTIC SALMON FOLLOWING A SINGLE ESCAPE EVENT IN SOUTHERN
NEWFOUNDLAND, CANADA
- 15:10** **Ola Diserud**, Kjetil Hindar, Peder Fiske, Sten Karlsson
FACTORS EXPLAINING ENTRY OF ESCAPED FARM SALMON IN NORWEGIAN
RIVERS AND GENETIC INTROGRESSION INTO WILD ATLANTIC SALMON
POPULATIONS
- 15:30** **Jarle Tufto**
DOMESTICATION AND FITNESS IN THE WILD: A MULTIVARIATE VIEW
- 15:50** **Ingerid Julie Hagen Arnesen**, Arne J. Jensen, Geir H. Bolstad, Ola H. Diserud,
Kjetil Hindar, Sten O. Karlsson
STOCKING ACCENTUATES GENETIC INTROGRESSION OF FARMED ESCAPED
SALMON IN A WILD SALMON POPULATION
- 16:10** **Sten Karlsson**, Geir Bolstad, Ola Diserud, Ingerid Julie Hagen Arnesen,
Kjetil Hindar, Grethe Robertsen, Line Sundt-Hansen
A SYNTHESIS OF ESCAPED FARMED SALMON IN NORWAY – GENETIC
INTROGRESSION AND CONSEQUENCES FOR WILD SALMON POPULATIONS

MONDAY

GENOMIC SELECTION

Monday, August 27 14:30 - 17:10 Joffre 5

Chair: José Manuel Yáñez

- 14:30** **Alejandro P. Gutierrez**, Tim P. Bean, Oswald Matika, Ross D. Houston
GENOMIC PREDICTION ACCURACY FOR GROWTH TRAITS IN PACIFIC OYSTER USING A MEDIUM DENSITY SNP ARRAY
- 14:50** **José Manuel Yáñez**, Giovanna Caceres, Alejandro Maass, Diego Díaz, Ricardo Palma, Dante Travisany, Cindy Lawley, Jean Lhorente
HIGH-THROUGHPUT SINGLE NUCLEOTIDE POLYMORPHISM DISCOVERY IN NILE TILAPIA USING WHOLE GENOME SEQUENCING OF HUNDREDS OF ANIMALS
- 15:10** **François Allal**, Romain Morvezen, Sophie Brard-Fudulea, Charles Poncet, Elodie Belmonte, Ronan Griot, Jean-Sébastien Bruant, Sophie Cariou, Aline Bajek, Bruno Peyrou, Marc Vandeputte, Céline Jaimet, Pierrick Haffray, Pierre-Alexandre Gagnaire
DEVELOPMENT AND CHARACTERIZATION OF A 57K SINGLE NUCLEOTIDE POLYMORPHISM ARRAY FOR EUROPEAN SEA BASS
- 15:30** **Jonathan D'Ambrosio**, Florence Phocas, Pierrick Haffray, Edwige Quillet, Anastasia Bestin, Clémence Fraslin, Nicolas Dechamp, Mathilde Dupont-Nivet
GENOMIC ESTIMATES OF DIVERSITY BETWEEN AND WITHIN FRENCH RAINBOW TROUT POPULATIONS
- 15:50** **Clémence Fraslin**, Sophie Brard-Fudulea, Jonathan D'Ambrosio, Anastasia Bestin, Mathieu Charles, Pierrick Haffray, Florence Phocas, Edwige Quillet
RAINBOW TROUT RESISTANCE TO *Flavobacterium psychrophilum*: A GENOME WIDE ASSOCIATION STUDY IN A FRENCH POPULATION AFTER A NATURAL DISEASE OUTBREAK
- 16:10** **François Allal**, Khanh Q. Doan, Béatrice Chatain, Alain Vergnet, Pierrick Haffray, Marc Vandeputte
GENOME-WIDE ASSOCIATION STUDY AND GENOMIC EVALUATIONS FOR RESISTANCE TO VIRAL NERVOUS NECROSIS IN WILD POPULATIONS OF EUROPEAN SEA BASS *Dicentrarchus labrax*

MONDAY

GENERAL CONTRIBUTED - FEEDS

Monday, August 27 14:30 - 17:10 Sully 1

Chairs: Sungchul C. Bai, Nathaniel Farris

- 14:30 David Domínguez**, Zakarya Sehnine, Paula Sarmiento, Ramon Fontanillas, Philip Antony Jesu Prabhu, Marisol Izquierdo
DEFINING MINERAL OPTIMUM LEVELS ON GILTHEAD SEABREAM *Sparus aurata* FINGERLINGS: SELENIUM, MANGANESE AND COPPER
- 14:50 Nathaniel Farris**, Jin-hyeock Lee, Haham Kim, Hyeonho Yun, Yongjik Lee, Sungwook Han, Sungchul Bai
THE EFFECTS OF THREE *Bacillus*-FERMENTED VEGETABLE PROTEINS AS FISHMEAL REPLACERS IN JUVENILE WHITELEG SHRIMP *Litopenaeus vannamei*
- 15:10 Seonghun Won**, Sungchul Bai, Youngjin Park
POTENTIAL USE OF DIETARY TWO SINGLE PROBIOTICS AND THEIR MIXTURE AS THE ANTIBIOTIC REPLACERS IN RAINBOW TROUT *Oncorhynchus mykiss* AND STARRY FLOUNDER *Platichthys stellatus*
- 15:30 Sungchul Bai**, Haham Kim, Seunghan Lee
POTENTIAL USE OF THE SYNBIOTICS AS THE ANTIBIOTIC REPLACERS FOR JAPANESE EEL *Anguilla japonica* AQUACULTURE IN KOREA
- 15:50 Naser Agh**, Fatemeh Jafari, Farzaneh Noori, Amir Tokmachi, Enric Gisbert
HOW DIETARY PHOSPHOLIPIDS EFFECT THE GROWTH PERFORMANCE, BLOOD CHEMISTRY AND IMMUNITY IN JUVENILE STELLATE STURGEON *Acipenser stellatus*
- 16:10 Sungchul Bai**, Wonsuk Choi, Seonghun Won, Kang-Woong Kim, Bong-Joo Lee, Hyon-Sob Han
THE OPTIMUM LEVELS FOR THE MIXTURE OF ANIMAL AND PLANT PROTEIN AS THE FISH MEAL REPLACERS IN OLIVE FLOUNDER *Paralichthys olivaceus*
- 16:30 Matteo Calligaris**, Alessio Paoli, Manuela Parini
1-MONOGLYCERIDES OF SHORT- AND MEDIUM-CHAIN FATTY ACIDS PROVED TO IMPROVE SURVIVAL RATE OF YELLOW TUNA *Thunnus albacares* AT EARLY DEVELOPMENTAL STAGES
- 16:50 Manuela Parini**, Alessio Paoli, Matteo Calligaris
1-MONOGLYCERIDES OF SHORT- AND MEDIUM-CHAIN FATTY ACIDS: AN ANTIBIOTIC FREE APPROACH TO CONTROL *Vibrio parahaemolyticus* IN *Penaeus vannamei* AND *Vibrio anguillarum*, *Tenacibaculum maritimum*, *Yersinia ruckery*, *Aeromonas hydrophila* AND OTHER GRAM-NEGATIVE BACTERIA AFFECTING SALMONIDS, EEL, MARINE AND FRESHWATER FISH

THE FUTURE OF AQUACULTURE VALUE CHAINS

Monday, August 27 15:10 - 17:10 Sully 2

Chairs: Olivier Joffre, Ben Belton

- 15:10** **Simon Bush**, Ben Belton, David Little, Md. Saidul Islam
EMERGING TRENDS IN AQUACULTURE VALUE CHAIN RESEARCH
- 15:30** **David Little**, Francis Murray, Richard Newton, Dimitar Taskov, Alex Pounds, Simao Zacarias, John Bostock, Stuart Bunting, Mahmoud Eltolth, William Leschen
SUSTAINABLE INTENSIFICATION OF AQUACULTURE-LESSONS FROM VALUE CHAIN ACTORS
- 15:50** **Hilde Toonen**, Tori Spence McCall, Simon Bush
THE AQUACULTURE GOVERNANCE INDEX: AN INTRODUCTION
- 16:10** **Johan Verreth**, Sophie Neitzel, Simon Bush
FEEDING EUROPE FARMED FISH: TRENDS IN PRODUCTION, CONSUMPTION AND TRADE
- 16:30** **Ben Belton**
THE QUIET REVOLUTION IN AQUACULTURE VALUE CHAINS
- 16:50** **Olivier Joffre**, Laurens Klerkx
VALUE CHAIN INNOVATION RESEARCH IN AQUACULTURE

MONDAY

INTEGRATED MULTI-TROPHIC AQUACULTURE

Monday, August 27 15:10 - 17:10 Antigone 3

Chair: Thierry Chopin

- 15:10** **Thierry Chopin**, Adrian Hamer
BEYOND LINEAR PROTEIN SOURCING: BRINGING ENVIRONMENTAL SUSTAINABILITY, ECONOMIC STABILITY THROUGH CROP DIVERSIFICATION AND SOCIETAL ACCEPTABILITY WITH INTEGRATED MULTI-TROPHIC AQUACULTURE (IMTA) IN A CIRCULAR ECONOMY FRAMEWORK
- 15:30** **Stephen Cross**, Allison Byrne
A GROWING INTEREST IN SEAWEEDS – INDUSTRY AND COASTAL COMMUNITY ENGAGEMENT TO SUPPORT COMMERCIALIZATION OPPORTUNITIES IN COASTAL BRITISH COLUMBIA, CANADA
- 15:50** **Tamás Bardócz**, Rachel Cox, Karl Cutajar, Alexia Massa-Gallucci
TAPAS CASE STUDY: NUTRIENT RETENTION OF FISH FARM EFFLUENT AND SITE ASSESSMENT FOR THE FEASIBILITY OF INTEGRATED MULTI-TROPHIC AQUACULTURE (IMTA) IN MALTA
- 16:10** **Wouter Visch**, Per Bergström, Goran Nylund, Henrik Pavia, Mats Lindegarth
SPATIAL GROWTH PATTERNS AND NUTRIENT MITIGATION CAPACITY OF THE BLUE MUSSEL *Mytilus edulis* AND KELP *Saccharina latissima* ON THE SWEDISH WEST COAST
- 16:30** **Henrice Jansen**, Jinghui Fang, Marit Nederlof, Natalie Brennan, Pia Kupka Hansen, Ole Samuelsen, Oivind Strand
DEVELOPMENT OF BENTHIC IMTA SYSTEMS BY COUPLING POLYCHAETE PRODUCTION TO SALMON FARMING: SYSTEM DEVELOPMENT, NUTRIENT DYNAMICS AND RISK OF MEDICINE RESIDUES
- 16:50** **Candace Loy**, Jim Dollimore, Craig Radford, Andrew Jeffs
GROWOUT AND FUCOIDAN YIELD OF NEW ZEALAND NATIVE FUCOID BROWN SEAWEED *Hormosira banksii* USING PACIFIC OYSTER FARM INFRASTRUCTURE

MONDAY

TUESDAY, August 28

INvertebrateIT MATCHMAKING AND BROKERAGE (TAPAS)

Tuesday, August 28 08:00 - 13:00 Joffre 4

Chair: Jamie Downes

INvertebrateIT aims to help aquaculture operators mitigate their current dependence on costly, volatile, and often unsustainable fish feeds; to diversify their business; to contribute to better management of valuable organic waste and new algal substrates for invertebrate production.

The **INvertebrateIT Brokerage Event** will promote three selected projects; will allow for engagement of stakeholders and will facilitate the creation and mobilisation of PPPs, enhancing visibility and networking.

NUTRITION: NOVEL FEED INGREDIENTS

Tuesday, August 28 09:00 - 12:30 Einstein Auditorium

Chair: Otavio Castro



- 09:00** **Maria N. Metsoviti**, Elli Z. Gkalogianni, Aikaterini M. Katouni, Georgios Rougkas, Eleni Savvaki, Pierre Psofakis, Nikolaos Katsoulas, Georgios Papapolymerou, Ioannis T. Karapanagiotidis
EFFECTS OF REPLACING FISHMEAL BY *Chlorella vulgaris* AND FISH OIL BY *Nannochloropsis gaditana* AND *Schizochytrium* sp. BLEND ON GROWTH AND FEED EFFICIENCY OF GILTHEAD SEABREAM *Sparus aurata*
- 09:20** **Nadège Richard**, Otavio Castro, Tanuttha Suyawanish, Marcelo Borba, Alberto Nunes, Jorge Dias, Chutima Tantikitti, Eric Auclair
NOVEL YEAST PROTEIN SOLUTIONS (PROSAF®) IN REDUCED FISH MEAL DIETS FOR WHITELEG SHRIMP *L. vannamei*
- 09:40** **Tibiabin Benitez-Santana**, Thomas Larsson, Aleksei Krasnov, Carlo Lazado, Bjarne Hatlen, Turid Mørkøre
HEALTH AND FLESH QUALITY OF ATLANTIC SALMON *Salmo salar* FED A MODERN LOW FISHMEAL DIET SUPPLEMENTED WITH ANTARCTIC KRILL *Euphausia superba*

10:00 Sandrine Skiba-Cassy, Christine Burel, Frédéric Terrier, Benoit Fauconneau, Iban Seilliez, Benjamin Costas, Nadège Richard
NEW SUSTAINABLE PROTEIN SOURCES IN RAINBOW TROUT PLANT-BASED DIETS: CONSEQUENCES ON GROWTH PERFORMANCES, FATTY ACID CONTENT AND IMMUNE-STATUS

10:20 BREAK

11:10 Monika Weiss, Matthew J. Slater
BLUE LUPIN FOR WHITE SHRIMP *Litopenaeus vannamei*

11:30 Ayodeji Adeoye, Simon Davies
INSECT PROTEIN MEAL AS ALTERNATE PROTEIN SOURCE IN THE DIETS OF AFRICAN CATFISH *Clarias gariepinus*

FISHBOOST: BOOSTING EUROPEAN AQUACULTURE BY ADVANCING SELECTIVE BREEDING TO THE NEXT LEVELS

Tuesday, August 28 09:00 - 12:30 Sully 1

Chair: Anna Sonneson

09:00 Beatriz Villanueva, María Saura, Armando Caballero, Enrique Santiago, Elisabeth Morales, Almudena Fernández, Jesús Fernández, Santiago Cabaleiro, Paulino Martínez, Adrián Millán, Christos Palaiokostas, Martin Kocour, Ross Houston, Martin Prchal, Luca Bargelloni, Tzokas Kostas
THE IMPORTANCE OF ENSURING GENETIC VARIABILITY WHEN ESTABLISHING SELECTION PROGRAMMES IN AQUACULTURE

09:20 Anna K. Sonesson, R. Palaiokostas, R.D. Houston, B. Dagnachew, M.L. Aslam, T.H.E. Meuwissen
GENOMIC SELECTION ANALYSES RESULTS ON COMMON CARP, EUROPEAN SEABASS, GILTHEAD BEABREAM AND TURBOT

09:40 Ross D. Houston, Christos Palaiokostas, Diego Robledo, Tomas Vesely, Martin Prchal, Dagmar Pokorova, Veronika Piackova, Lubomir Pojezdal, Martin Kocour
MAPPING, SEQUENCING AND FUNCTIONAL ANNOTATION OF A QTL REGION AFFECTING RESISTANCE TO KOI HERPESVIRUS IN COMMON CARP

10:00 Paulino Martínez, Francesco Maroso, María Saura, Almudena Fernández, Andrés Blanco, Miguel Hermida, Santiago Cabaleiro, Andrea Doeschl-Wilson, Osvaldo Anacleto, Ross Houston, Adrián Millán, Jesús Fernández, Luca Bargelloni, Giulia dalla Rovere, Miguel A. Toro, María Jesús Carabaño, Carmen Bouza, Beatriz Villanueva
A CLOSER LOOK AT TURBOT GENOME REVEALS A GENETIC COMPONENT OF PARASITE RESISTANCE: NEW TOOLS FOR SELECTION

- 10:20 Binyam Sime Dagnachew**, Anna Sonesson, Theo Meuwissen
USE OF DNA POOLING IN GENOMIC SELECTION FOR A DISEASE TRAIT IN ATLANTIC SALMON
- 10:40 BREAK**
- 11:10 Marc Vandeputte**, Jérôme Bugeon, Anastasia Bestin, Alexandre Desgranges, Sébastien Courant, Jean-Michel Allamellou, Anne Sophie Tyran, François Allal, Mathilde Dupont-Nivet, Pierrick Haffray
SUCCESSFUL REALIZED SELECTION RESPONSE FOR FILLET YIELD IN RAINBOW TROUT *Oncorhynchus mykiss*
- 11:30 Martin Prchal**, Jérôme Bugeon, Marc Vandeputte, Antti Kause, Alain Vergnet, Jinfeng Zhao, David Gela, Lucie Genestout, Anastasia Bestin, Pierrick Haffray, Martin Kocour
POTENTIAL FOR GENETIC IMPROVEMENT OF THE MAIN SLAUGHTER YIELDS IN COMMON CARP WITH *IN VIVO* MORPHOLOGICAL PREDICTORS
- 11:50 Beatriz Villanueva**, Silvia García-Ballesteros, Jesús Fernández
OPTIMAL SCHEMES FOR ADVANCING SELECTIVE BREEDING TO THE NEXT LEVEL FOR THE MAIN SPECIES OF EUROPEAN AQUACULTURE
- 12:10 Kasper Janssen**, Helmut Saatkamp, Hans Komen
COST-BENEFIT ANALYSIS OF A BREEDING PROGRAM FOR ATLANTIC SALMON

TUESDAY

EUROPEAN ASSOCIATION OF FISH PATHOLOGISTS (EAFP) MEETING

Tuesday, August 28 09:00 - 12:30 Sully 3

Chair: Jean-Christophe Avarre

Meeting of the French branch of the European Association of Fish Pathologists (EAFP)

- 09:00 Jean-François Bernardet**, Branch Officer for France
INTRODUCTION
- 09:15 S. Hammoumi**, A. Santika, Z. Zainun, T. Vallaeys, E. Borzym, S. Bergmann, C. Klopp, M. Engelsma, J.C. Avarre (IRD Montpellier)
MISE EN EVIDENCE DE GENOMES ATYPIQUES DE «KOI HERPES VIRUS»
SUITE AU SEQUENÇAGE COMPLET D'UN GRAND NOMBRE DE SPECIMENS
- 09:40 L. Louboutin** (ANSES Plouzané)
BILAN DE LA SITUATION SANITAIRE EN FRANCE ET REVUE DES DIFFERENTS EPISODES INFECTIEUX DANS LESQUELS LE LNR A ETE IMPLIQUE.

- 10:05 E. Leguay** (Société Vétofish)
ETAT ACTUEL DES CAS D'INFECTIONS AU «CARP EDEMA VIRUS»
- 10:30 BREAK**
- 10:50 A. Le Breton** (Société Vet'Eau)
IMPACT DES BACTERIES DU GENRE *Tenacibaculum* SUR LES ELEVAGES DE POISSONS MARINS
- 11:15 S. Bridel**, J.F. Bernardet, P.Y. Moalic, F. Bourgeon, S. Pasek, E. Duchaud (INRA, Jouy-en-Josas; sociétés Labofarm et Biochêne Vert)
APPLICATION DU MALDI-TOF ET DES OUTILS BIOINFORMATIQUES A L'IDENTIFICATION RAPIDE, PRECISE ET BON MARCHE DES SOUCHES DE *Tenacibaculum* DANS LES ELEVAGES MARINS
- 11:40 E. Larvor**, M. Quentel, H. Duprey, E. Jouy, C. Chauvin, I. Kempf, A. Whilhem, B. Gassilloud, S. Baron (ANSES Ploufragan)
SENSIBILITE AUX ANTIBIOTIQUES D'UNE COLLECTION DE SOUCHES D'*AEROMONAS* ISOLEES DES BRANCHIES, DU MUCUS ET DU CONTENU INTESTINAL DE TRUITES D'ELEVAGE
- 12:05 J.C. Raymond** (Comité National des Pêches Maritimes et des Elevages Marins)
GRANULOMES ET DEPOTS DANS LES REINS, RATES ET FOIES DES POISSONS MARINS : UN PROBLEME?
- 12:30 GENERAL DISCUSSION AND CONCLUSIONS**

BIOSECURITY AND ANTIMICROBIAL RESISTANCE (FAO)

Tuesday, August 28 09:00 - 12:30 Barthez
Chairs: Patrick Sorgeloos, Melba Bondad-Reantaso

- 09:00 Melba Bondad-Reantaso**
WELCOME REMARKS (FAO)
- 09:05 Grant Stentiford**, Melba Bondad-Reantaso, Sharon McGladdery
THE ANATOMY OF THE EMERGING DISEASE
- 09:35 Patrick Sorgeloos**
NEED FOR MORE RESEARCH IN MICROBIAL MANAGEMENT TO MAKE INTENSIVE AQUACULTURE MORE SUSTAINABLE

- 09:55 John Benzie**, Mohan V. Chadag, Paola Reale
FISH CRP AND TILAPIA HEALTH RESEARCH IN RELATION TO GLOBAL BIOSECURITY GOVERNANCE
- 10:15 Brit Hjeltnes**, Saraya Tavornpanich, Edgar Brun
BIOSECURITY AND TRANSPARENCY
- 10:35 Niall Gerlitz**
OFFICIAL CONTROL OF AQUACULTURE IN THE EU
- 10:55 Frank Asche**
ECONOMIC DRIVERS OF BIOSECURITY
- 11:15 Melba Reantaso**, Ramesh Perera, Silvia Kreindel, Paolo Calistri, Julio Pinto, Eran Raizman
TILAPIA LAKE VIRUS (TiLV) EXPERT KNOWLEDGE ELICITATION RISK ASSESSMENT
- 11:35 Snježana Zrncic**
ROLE OF AQUACULTURE IN THE EU ACTION PLAN ON AMR
- 11:55 Charles McGurk**, Alex Obach
FUNCTIONAL NUTRITION IS A CORE COMPONENT OF AQUACULTURE HEALTH MANAGEMENT THAT COULD MITIGATE ANTIMICROBIAL RESISTANCE (AMR) DEVELOPMENT

**A REFOCUSING OF APPLIED RESEARCH PRIORITIES AND
AGENDA TO SUPPORT THE GROWING COMMERCIAL
AQUACULTURE SECTOR AND ASSOCIATED VALUE CHAIN
ACROSS ALL SCALES ON THE AFRICAN CONTINENT**

Tuesday, August 28 09:00 - 13:00 Tiberade

Chair: William Leschen

- 09:00 David Little**, University of Stirling (UOS) / **Charles Ngugi**, Kenya
INTRODUCTION
- 09:10 William Leschen**, Institute of Aquaculture Stirling
SETTING THE SCENE: HISTORICAL UP TO CURRENT PERSPECTIVE OF COMMERCIALISATION OF AQUACULTURE ACROSS AFRICA – INFLUENCE / SUCCESS? OF RESEARCH SECTOR IN CONSTRUCTIVELY BENEFITTING?

Katrina Ole Moi Yoi, Stanford Univ. US and Victory Farms Kenya
CASE STUDY: CONCEPT, DESIGN AND DEVELOPMENT OF VICTORY FARMS,
KENYA'S LARGEST COMMERCIAL AQUACULTURE PRODUCER.

Marc Oswald, APDRA ISTOM
CASE STUDY: APDRA AN EXAMPLE OF NGO SUPPORTING AND BENEFITTING
SMALLER SCALE LOWER INCOME ENTREPRENEURIAL INDIVIDUALS
TOWARDS FINANCIALLY VIABLE SUSTAINABLE AQUACULTURE. THE
MISSING MIDDLE?

10:40 BREAK

11:00 Focus groups: Targeting future needs and priorities for research sector to benefit commercialisation and increase in sustainable farmed fish production, sales and consumption

11:40 Groups present back to session

12:00 Expert panel led discussion
Questions and Answers: Setting the applied research agenda for the future

12:50 A proposed summary agenda for the future

HATCHERY TECHNOLOGIES, BROODSTOCK MANAGEMENT AND LARVAE & JUVENILE MANAGEMENT

Tuesday, August 28 09:00 - 17:10 Louisville
Chairs: Maria Celia Portella, Isabel Represas



SHAPING
AQUACULTURE
TOGETHER
✦ A BENCHMARK COMPANY

09:00 Jean-Jacques Lareyre, Anne-Sophie Goupil, Ahmed Maouche, Alexandra Depincé, Lionel Goardon, Marjorie Bideau, Nicolas Dechamp, Edwige Quillet, Francine Krieg, Florence Le Gac
GERM STEM CELLS TRANSPLANTATION IN FISH: AN INNOVATIVE BIOTECHNOLOGY FOR THE FAITHFUL REGENERATION OF CRYOPRESERVED GENETIC RESOURCES COLLECTED FROM SELECTED LINES OF AGRONOMIC INTEREST

09:20 Gennady G. Matishov, Elena N. Ponomareva
AQUACULTURE PROMISING OBJECTS AND NEW TECHNICAL MEANS

TUESDAY

- 09:40** **Valérie Robitaille**, Samuel Couture Brochu, Marnix Faes,
Louis-David Coulombe, Julien Roy
ARTIFICIAL INTELLIGENCE TO GAIN VALUABLE INSIGHT ON AQUATIC ORGANISMS
- 10:00** **Béla Urbányi**, Gergely Bernáth, Levente Várkonyi, Ákos Horváth, Zoltán Bokor
LATEST RESULTS OF WELS CATFISH *Silurus glanis* SPERM CRYOPRESERVATION AND POSSIBILITIES OF PRACTICAL APPLICATION
- 10:20** **Taslim Mahmood**
DOMESTICATED SPF SHRIMP AQUACULTURE ACTIVITIES IN BANGLADESH
- 10:40** **BREAK**
- 11:10** **María Fernández Míguez**, Øyvind J. Hansen, Pablo Presa, Montse Pérez,
Helge Tveiten, Atle Mortensen, Velmurugu Puvanendran
INFLUENCE OF MATERNAL FACTORS ON EGG QUALITY IN ATLANTIC COD *Gadus morhua*
- 11:30** **Samuel Pountney**, Ingrid Lein, Herve Migaud, Andrew Davie
TEMPERATURE EFFECTS ON CAPTIVE LUMPFISH *Cyclopterus lumpus* BROODSTOCK SPAWNING SEASON AND GAMETE QUALITY
- 11:50** **José Beirão**, Einar Skarstad Egeland, Arianne Savoie, Jose de Pool,
Denis Chabot, Nathalie R. Le François, Sylvie Bolla
WHAT IS EGG QUALITY IN SPOTTED WOLFFISH *Anarhichas minor*? A KEY TO REPRODUCTIVE PERFORMANCE EVALUATION
- 12:10** **Juan Fernando Paredes Salas**, Gonzalo De Alba, José Fernando López-Olmeda,
José Antonio Muños-Cueto, Evaristo Mañanós,
Francisco Javier Sánchez-Vázquez
DAILY RHYTHMS OF *IN VITRO* FERTILIZATION IN FISH
- 12:30** **LUNCH**
- 14:00** **Sherezade Carrillo**, José Fernando López-Olmeda,
Francisco Javier Sánchez-Vázquez
COMBINED EFFECTS OF DAILY THERMOCYCLES AND LIGHT SPECTRUM DURING EARLY DEVELOPMENT OF FISH
- 14:20** **Ivone Giffard-Mena**, Alvaro Hernández-Montiel, Javier Pérez-Robles,
Conal David-True
SALINITY ADAPTATION OF *Totoaba macdonaldi* LARVAL STAGES

- 14:40** **Elin Kjørsvik**, Julie Terese Hanssen, Joachim Larsen Marthinsen, Job van Mil
FUNCTIONAL DEVELOPMENT OF LUMPFISH *Cyclopterus lumpus* LARVAE IN RELATION TO GROWTH AND DIET
- 15:00** **Luis Conceição**, Sofia Engrola, Wilson Pinto, Manuel Yúfera
HIGH PERFORMANCE MICRODIETS FOR FISH LARVAE: PROGRESS AND DIFFICULTIES
- 15:40** **Michael Clarkson**, Herve Migaud, Jose C. Mota Velasco, Alastair Hamilton, John F. Taylor
THE IMPACT OF POST-OVULATORY AGEING ON THE DEVELOPMENT OF DIPLOID AND TRIPLOID ATLANTIC SALMON *Salmo salar*
- 16:00** **Cédric Audor**
AQUACULTURE LIVESTOCK INSURANCE
- 16:20** **Geert Rombaut**, Alessandro Moretti, Steven Debono, Eddy Naessens
THE CONTINUOUS DEVELOPMENT OF INNOVATIVE PRODUCTS AND CONCEPTS THAT FACILITATES THE USE OF *Artemia* IN MARINE FISH AND SHRIMP HATCHERIES
- 16:40** **Tania De Wolf**, Alessandro Moretti, Steven De Bono, Geert Rombaut
RECENT ADVANCES IN THE LARVAL REARING AND FEEDING STRATEGIES FOR MARINE MEDITERRANEAN SPP. AND ITS IMPACT ON OVERALL FRY QUALITY
- 17:00** **Luis Andre Sampaio**, Jose Linares, Diego Miranda, Marcelo Hideo Okamoto, Ricardo Vieira Rodrigues
THE EFFECT OF STOCKING DENSITY ON PRODUCTION OF JUVENILE BRAZILIAN FLOUNDER *Paralichthys orbignyanus*

FRENCH SHELLFISH INDUSTRY FORUM

Tuesday, August 28 09:00 - 17:20 Rondelet

Chairs: Philippe Le Gal, Patrice Lafont

Moderators: Emmanuelle Roque, Béatrice Pary

- 09:00** Opening speech by **Philippe Le Gal**, President of the French National Shellfish Council – CNC, FR

Session 1 : Situation and future of the French oyster aquaculture industry

- 09:10** **Thierry Hélie**, President of Sector I “Oyster”, French National Shellfish Council, FR
THE FRENCH OYSTER AQUACULTURE INDUSTRY, ITS REGIONS AND ITS PRODUCTION

- 09:20 Isabelle Arzul**, Coordinator VIVALDI, Ifremer, FR
CAN WE PREVENT AND CONTROL SHELLFISH DISEASES?
- 09:30 Pierrick Haffray**, Aquaculture operator of SYSAAF, FR
SHELLFISH GENETIC IMPROVEMENT IN FRANCE
- 09:40 Cécile Mablouké**, CEPRALMAR, FR
TEMPORAL EVOLUTION OF THE DIFFERENT TECHNIQUES AND SUPPORTS
USED IN SHELLFISH FARMING AND PERSPECTIVES
- 09:50 Benoit Salaun**, North Brittany Shellfish Council, FR
PERLE II: FLAT OYSTER SELECTION TO BOOST THE PRODUCTION

10:00 Round table

10:40 BREAK

Session 2 : Shellfish quality and consumer information in France

- 11:10 Jean Côme Piquet**, National coordinator REMI, Ifremer, FR
THE HEALTH SURVEILLANCE STRATEGY IN FRANCE FOR SHELLFISH AND
ENVIRONMENT
- 11:25 Caroline Medous**, Director of Direction Départementale de la Protection des
Populations de l'Hérault, FR
SHELLFISH QUALITY AND CRISIS MANAGEMENT
- 11:40 Guillaume Nouvel**, FranceAgrimer, FR
THE SHELLFISH CONSUMER TRENDS OF THE FRENCH HOUSEHOLDS
- 11:55 Matthew Hébert**, CEPRALMAR, FR
COMMERCIAL PRODUCTION SECUREMENT

12:10 Round table

12:40 Lunch

Session 3 : Shellfish ecosystem and environment

- 14:00 Fabrice Pernet**, Coordinator GIGASSAT, Ifremer/UMR LEMAR, FR
SHELLFISH AQUACULTURE AND GLOBAL CHANGE: HOW WILL BE OURS
OYSTERS IN THE FUTURE?
- 14:15 Joel Aubin**, INRA, FR
BLUE MUSSEL *Mytilus edulis* BOUCHOT CULTURE IN MONT-ST MICHEL
BAY: POTENTIAL MITIGATION EFFECTS ON CLIMATE CHANGE AND
EUTROPHICATION

14:30 **Marion Richard**, Ifremer/UMR MARBEC, FR and **Romain Pete**, University of Montpellier/UMR MARBEC, FR
CARRYING CAPACITY OF THE THAU LAGOON IN A RESTORATION CONTEXT

14:50 **Round table**

Session 4 : Management of French shellfish growing areas

15:30 THAU, A PILOT REGION IN THE TERRITORY MANAGEMENT FOR THE MOLLUSCS ISSUES by Syndicat Mixte du Bassin de Thau, FR

15:40 VIGITHAU, A DECISION SUPPORT TOOL FOR THE CONTROL OF HEALTH RISKS by Syndicat Mixte du Bassin de Thau, FR

15:50 INTEGRATED AND CONCERTED MANAGEMENT OF THE THAU SHELLFISH AQUACULTURE AREA IN RESPONSE TO THE SUSTAINABLE development by **Hélène Rey Valette**, LAMETA, University of Montpellier, FR

16:00 **Nadine Segalen**, South Brittany Shellfish Council, FR
FRENCH SHELLFISH AQUACULTURE, AN INTERFACE BETWEEN LAND AND SEA AND UNDER PRESSURE

16:10 MANAGEMENT OF A FRENCH SHELLFISH GROWING AREA (presentation and speaker TBC)

16:20 **Round table**

17:00 Closing speech by **Patrice Lafont**, President of the Mediterranean Shellfish Council, FR

EMERGING DISEASES AND DIAGNOSTICS

Tuesday, August 28 09:00 - 17:20 Antigone 1

Chair: Benjamin Beck

09:00 **Cara Brosnahan**, S.E. Keeling, E. Georgiades, J.S. Munday, P. Davie, C.M. McDonald, B.J. Jones
USING MOLECULAR TOOLS TO DIFFERENTIATE BETWEEN LIVE AND DEAD AQUATIC PATHOGENS

09:20 **Chen Su**, Ying-Jyun Chen, Yu-Chun Lin, Yun-Long Tsai, Simon Chung
A FULLY AUTOMATED SAMPLE-TO-RESULT RT-PCR SYSTEM FOR QUICK AND SIMPLE DETECTION OF TILAPIA LAKE VIRUS

- 09:40** **Brian Quinn**, Josip Barisic, Teresa Garzon, Meritxell Padrisa, Stuart Cannon
THE DEVELOPMENT OF HIGH THROUGHPUT DIAGNOSTIC TECHNIQUES TO ASSESS FISH HEALTH AND THE IMPACT OF SEA LICE TREATMENT IN AQUACULTURE
- 10:00** **Mònica Campàs**, Anna Toldrà, Karl B. Andree, Ana Roque, Noèlia Carrasco, Ignasi Gairín, Dolors Furones
CAPTURE OF INFECTIOUS OSTREID HERPESVIRUS FROM *Crassostrea gigas* USING ANIONIC POLYMER-COATED MAGNETIC BEADS
- 10:20** **Andrew Desbois**, Stuart McMillan, Mahfuza Akter
DISCOVERY OF GENES PROMOTING GROWTH OF *Aeromonas salmonicida* IN ATLANTIC SALMON MUCUS
- 10:40** **BREAK**
- 11:10** **Alain Le Breton**, Arnaud Marie, Pierre Yves Moalic, Frédéric Bourgeois, Robin Carpentier
Tenacibaculum INFECTIONS IN MARINE FINFISH AQUACULTURE: RECENT EVOLUTION IN CLINICAL ASPECTS AND STRAIN IDENTIFICATION – IMPACT ON PROPHYLACTIC METHODS
- 11:30** **Benjamin Beck**, Haitham Mohammed, Craig Shoemaker, Mediha Aksoy, Eric Peatman
MECHANISMS OF PATHOGEN VIRULENCE AND HOST SUSCEPTIBILITY IN VIRULENT *Aeromonas hydrophila* INFECTIONS OF CHANNEL CATFISH *Ictalurus punctatus*
- 11:50** **Nora Navarro-Gonzalez**, Sandrine Baron, Emeline Larvor, Anthony Le Piouffle, Catherine Fournel, Thierry Morin, Benoit Thuillier, Ségolène Calvez
A POTENTIAL CONTRIBUTION OF AQUACULTURE TO THE EMERGENCE OF mcr-1 MEDIATED COLISTIN RESISTANCE? NEW EVIDENCE COMING FROM FRANCE
- 12:10** **Brit Hjeltnes**, Britt Bang Jensen, Geir Bornø, Asle Haukaas, Cecilie S. Walde
UPDATE ON FISH DISEASE SITUATION IN NORWAY 2017
- 12:30** **LUNCH**

- 14:00 Seongdo Lee**, Chaehyeon Lim, Thiunuwan Priyathilaka Thanthrige, Myoung-Jin Kim, Hyerim Yang, Hyukjae Kwon, Jeongeun Kim, Seong Don Hwang, Jehee Lee
FIRST ISOLATION, GENOMIC CHARACTERIZATION, AND PATHOGENESIS OF SPRING VIREMIA OF CARP VIRUS ISOLATED FROM COMMON CARP *Cyprinus carpio carpio* AND LARGEMOUTH BASS *Micropterus salmoides* IN SOUTH KOREA
- 14:20 Jean-Christophe Avarre**, Saliha Hammoumi, Ayi Santika, Zakki Zainun, Christophe Klopp, Sandro Klafack, Sven Bergmann
INPUT OF NEXT GENERATION SEQUENCING INTO THE ANALYSIS OF POORLY STUDIED FISH VIRUSES: EXAMPLE OF CYPRINID HERPESVIRUS-3
- 14:40 Edgar C. Amar**, Leobert D. dela Pena, Charles Eugene I. Villanoche, Germin L. Moquera, Nikko Alvin R. Cabillon, Angela Denise P. Bilbao, Roselyn C. Usero, Cynthia P. Saloma
COMPARATIVE PATHOGENICITY AND VIRULENCE OF *Vibrio parahaemolyticus* ISOLATES DERIVED FROM AN AHPND OUTBREAK IN THE PHILIPPINES
- 15:00 Xuan Dong**, Jipeng Song, Jiayuan Chen, Hailiang Wang, Wenchoao Wang, Yanbei Ren, Chengcheng Guo, Jie Huang
EVIDENCE FOR HORIZONTAL TRANSFER OF pVA1-LIKE PLASMIDS FROM AHPND-CAUSING *Vibrio*
- 15:40 Jie Huang**, Xuan Dong, Qing-Li Zhang, Liang Qiu, Xiao-Yuan Wan, Guo-Si Xie, Bing Yang, Hai-Liang Wang, Qian Yang, Hua Xu, Xiu-Hua Wang
EMERGING DISEASES AND BIOSECURITY STRATEGIES FOR SHRIMP FARMING
- 16:00 Anton Immink**, Darren Green, Jimmy Turnbull, Pau Badia, Nattakarn Saleetid, Putth Songsangjinda, Ernesto Morales, Dave Little, Lisa van Wageningen, Flavio Corsin
AN AQUACULTURE COMMONS SOLUTION: DEVELOPING AN AREA-BASED HEALTH MANAGEMENT APP FOR SHRIMP FARMING
- 16:20 Stella Paret**, Dung Tu Thanh
IDENTIFICATION OF *Streptococcus agalactiae* IN RED TILAPIA *Oreochromis* spp. IN CAGE FARM IN THE MEKONG DELTA OF VIETNAM

MARINE SPATIAL PLANNING (SITING, AREA MANAGEMENT, ZONING AND GIS)

Tuesday, August 28 09:00 - 17:20 Joffre 5

Chair: José Aguilar Manjarrez

- 09:00** **Cecile Brugère**, José Aguilar-Manjarrez, Malcolm Beveridge, Doris Soto
THE ECOSYSTEM APPROACH TO AQUACULTURE TEN YEARS ON:
STOCKTAKING AND WAY FORWARD
- 09:20** **Joao Ferreira**, Jose Aguilar-Manjarrez, Adele Boyd, Richard Corner,
William F. Dewey, Bruno Fragoso, Jeremy Gault, Jon Grant, John Holmyard,
John Icely, Johan Johansen, Heather Moore, Anne-Marie O'Hagan,
Roberto Pastres, Matt Service
CHALLENGES TO AQUACULTURE EXPANSION IN EUROPE AND NORTH
AMERICA: AN INDUSTRY PERSPECTIVE
- 09:40** **Elisa Ravagnan**, Brita Gjerstad, Fiona Provan, Anne Vatland Krøvel,
Megan Brunswig, Alessio Gomiero, Asbjørn Bergheim, Thorleifur Agustsson,
Kathrine Skoland, Kristiane Lindland, Stephen Hynes, Gianna Fabi,
Nora Tassetti
AQUA ACCEPT: BUILDING KNOWLEDGE FOR A SUSTAINABLE AQUACULTURE
INDUSTRY
- 10:00** **Erika Maria Diletta Porporato**, Daniele Brigolin, Roberto Pastres
A SPATIAL MULTI-CRITERIA EVALUATION APPROACH TO SITE SELECTION
OF ALLOCATED ZONES FOR AQUACULTURE
- 10:20** **Joao G. Ferreira**, Joao Lencart e Silva, Afifah Nasukha, Nyoman Radiarta,
Antonio Santa Marta, Anton Immink, Rui Gomes Ferreira, Gede Sumiarsa
INTEGRATED CARRYING CAPACITY MODELLING FOR SHRIMP AND FINFISH
CULTURE IN INDONESIA
- 10:40** **BREAK**
- 11:10** **Killian Chary**, Myriam D. Callier, Joel Aubin, Denis Coves, Annie Fiandrino
COMBINATION OF FARM, HYDRODYNAMIC AND PARTICLE TRACKING
MODELS TO PLAN THE DEVELOPMENT OF ENVIRONMENTALLY
SUSTAINABLE AQUACULTURE PROJECTS IN MAYOTTE ISLAND

TUESDAY

- 11:30 Anton Immink**, Jenna Stoner, Paul Bulcock, Pedro Sousa, Ernesto Morales, Thawit Thawit Chauyuchuwong
ADDRESSING THE TRAGEDY OF THE AQUACULTURE COMMONS –
ASSESSMENT OF THE GOVERNANCE OF SHARED WATERS AND SHARED
RISKS FOR THE AQUACULTURE INDUSTRY
- 11:50 Jose Aguilar-Manjarrez**, Andy Dean, Lisa C. Wickliffe
GUIDANCE ON SPATIAL TECHNOLOGY FOR EMERGENCY PREPAREDNESS
AND RESPONSE FOR AQUACULTURE
- 12:10 Liesbeth De Keukelaere**, Els Knaeps, Dries Raymaekers, Robrecht Moelans
WATER QUALITY MAPPING WITH DRONES FOR AQUACULTURE
MANAGEMENT
- 12:30 LUNCH**
- 14:00 Maximilian Felix Schupp**, Martina Bocci, Daniel Depellegrin,
Andronikos Kafas, Ivana Lukic, Zacharoula Kyriazi, Gesche Krause,
Vincent Onyango, Bela H. Buck
A TYPOLOGY OF MARINE MULTI-USE SCENARIOS
- 14:20 Øivind Bergh**, Alexander Christian Beck, Eva Marie Skulstad, Guldborg Søvik,
Erik Olsen, Trude Thangstad, Genoveva Gonzalez-Mirelis, Fabio Grati,
Luca Bolognini
GIS-ANALYSIS OF SPATIAL CONFLICTS WITH LARGE SCALE SALMON
AQUACULTURE IN A NORWEGIAN FJORD ECOSYSTEM
- 14:40 Guzel Yucel-Gier**, Canan Eronat, Erdem Sayin
THE USAGE OF MODELLING FOR PLANNING SITE SELECTION AREA OF
MARINE FISH FARM
- 15:00 Flávia Tavares de Matos**, Rodrigo Roubach, Daniel Chaves Webber,
Jones Simon, José Luiz Cabral, Eric Arthur Bastos Routledge,
Guilherme Wolff Bueno
ZONING AND CARRYING CAPACITY OF PEIXE ANGICAL RESERVOIR FOR
TAMBAQUI PRODUCTION

PERCID FISH

Tuesday, August 28 09:00 - 17:20 Sully 2

Chair: Daniel Zarski

- 09:00** **Thomas Lecocq**, Lola Toomey, Pascal Fontaine
DEFINING UNITS WITH HIGH POTENTIAL FOR AQUACULTURE WITHIN SPECIES: TOWARDS AN INTEGRATION OF INTRASPECIFIC DIFFERENTIATION IN FISH DOMESTICATION PROGRAMS
- 09:20** **Lola Toomey**, Fabrice Teletchea, Pascal Fontaine, Thomas Lecocq
IMPROVING *Perca fluviatilis* AQUACULTURE BY CONSIDERING POPULATION-SPECIFIC PERFORMANCES IN RECIRCULATING AQUACULTURE SYSTEM
- 09:40** **Uroš Ljubobratovi**, Geza Péter, Zsuzsana Sándor, Nándor Kugyela, Maciej Kwiatkowski, András Rónyai
THE EFFECT OF DURATION OF SPAWNING INDUCTION AND FEED ENRICHMENT WITH ARA-OIL ON THE REPRODUCTIVE PERFORMANCE OF VIRGIN ZANDER *Sander lucioperca* L. BREEDERS IN FULLY CONTROLLED CONDITIONS
- 10:00** **Oleksandr Malinovskyi**, Jitka Kolárová, Miroslav Blecha, Jirí Křišťan, Alžbeta Stará, Josef Velíšek, Tomáš Policar
HEMATOLOGICAL AND BIOCHEMICAL CHANGES IN BLOOD OF PIKEPERCH *Sander lucioperca* THROUGHOUT SEMI-CONTROLLED REPRODUCTION
- 10:20** **Daniel Zarski**, Joanna Nynca, Berenice Schaerlinger, Pascal Fontaine, Andrzej Ciereszko, Julien Bobe
EGG QUALITY DETERMINANTS IN PIKEPERCH *Sander lucioperca* – IMPLICATIONS FOR AQUACULTURE
- 10:40** **BREAK**
- 11:10** **Azin Mohagheghi Samarin**, Azadeh Mohagheghi Samarin, Daniel Zarski, Miroslav Blecha, Jiri Kristan, Dariusz Kucharczyk, Tomas Policar
IN VITRO STORAGE OF THE EGGS IN PIKEPERCH *Sander lucioperca* AND EURASIAN PERCH *Perca fluviatilis*
- 11:30** **Gergely Bernáth**, Ákos Horváth, Daniel Zarski, Levente Várkonyi, Béla Urbányi, Zoltán Bokor
PERSPECTIVES OF SPERM CRYOPRESERVATION IN PERCID FISH, “PAST-PRESENT-FUTURE”

TUESDAY

- 11:50** **Tomas Policar**, Oleksandr Malinovskiy, Miroslav Blecha, Jiri Kristan, Azin Mohagheghi Samarin
POST-SPAWNING TREATMENT AND MORTALITY ELIMINATION AFTER TWO DIFFERENT SPAWNING TECHNIQUES IN POND-CULTURED PIKEPERCH *Sander lucioperca* BROODSTOCK
- 12:10** **Miroslav Blecha**, Oleksandr Malinovskiy, Lukáš Veselý, Tomáš Policar
SWIM BLADDER INFLATION FAILURE IN POND-CULTURED PIKEPERCH *Sander lucioperca* LARVAE
- 12:30** **LUNCH**
- 14:00** **Aiman Imentai**, Carlos Yanes-Roca, Tomas Policar
OPTIMIZATION OF PIKEPERCH *Sander lucioperca* FIRST FEEDING WITH ROTIFERS *Brachionus plicatilis*
- 14:20** **Katarzyna Palinska-Zarska**, Daniel Zarski
EFFECT OF THE DOMESTICATION PROCESS ON THE INTENSIVE REARING OF PERCH *Perca fluviatilis* LARVAE
- 14:40** **Harri Vehviläinen**, Jari Riihimäki, Markus Kankainen, Juha Koskela, Matti Janhunen, Antti Forsman, Jari Niukko, Markku Vaajala
POTENTIAL OF PIKEPERCH ONGROWING IN BALTIC SEA
- 15:00** **Edson Panana Villalobos**, Dieter Anseeuw, Stefan Teerlinck
GROWTH HETEROGENEITY IN PIKEPERCH *Sander lucioperca* PRODUCTION: FROM LARVAE TO TARGET WEIGHT
- 15:20** **Jurica Jug Dujakovic**, Steven Van Gorder, Ana Gavrilovic, Alexis Conides
CULTIVATION OF YELLOW PERCH *Perca flavescens* (MICHILL, 1814) FROM THE LARVAL STAGE TO THE MARKET SIZE IN A CLOSE RECIRCULATION SYSTEM
- 15:40** **Kathrin Steinberg**, Jan Zimmermann, Stefan Meyer, Carsten Schulz
IDENTIFICATION OF THE MOST FAVOURABLE COMBINATION OF ENVIRONMENTAL PARAMETERS FOR GROW-OUT OF PIKEPERCH *Sander lucioperca*
- 16:00** **Terence Barry**, Gavin Dehnert, Paul Hoppe, Peter Sorensen
CHEMICALS RELEASED BY PREDATION INCREASE THE GROWTH RATE OF YELLOW PERCH *Perca flavescens*

16:20 Jan Zimmermann, Kathrin Steinberg, Stefan Meyer, Carsten Schulz
EFFECT OF DIETARY LIPID AND CARBOHYDRATE ENERGY RATIO ON
ONGROWING PIKEPERCH *Sander lucioperca* IN COMMERCIAL SCALE RAS

16:40 Melanie Rupp, P-D. Sindilariu, R. Knüsel, B. von Siebenthal,
H. Schmidt-Posthaus
RISK MANAGEMENT TO MINIMIZE DISEASE-ASSOCIATED ECONOMIC
LOSSES IN AQUACULTURE OF NEW FISH SPECIES – IDENTIFICATION OF
INFLUENCING PATHOGENS

17:00 Nima Hematyar, Sabine Sampels, Trine Kastrup Dalsgaard, Jan Mraz
PROTEOME CHANGES OF EURASIAN PERCH *Perca fluviatilis* FILLET FROM
TWO DIFFERENT REARING SYSTEMS INFLUENCED BY FROZEN STORAGE

INTEGRATED MULTI-TROPHIC AQUACULTURE - CONTINUED

Tuesday, August 28 09:00 - 17:20 Antigone 3

Chair: Thierry Chopin

TUESDAY

09:00 E. Cunha, H. Ferreira, A. Parejo, G. Brito, G. Favot, S. Gamito
UNDERSTANDING THE INDIVIDUAL ROLE OF FISH, OYSTER AND
MACROALGAE IN THE ECOLOGY OF INTEGRATED PRODUCTION IN EARTHEN
PONDS

09:20 Sarah Nahon, Goncalo Villa de Brito, Hugo Quental-Ferreira, Joel Aubin,
Maria Emilia Cunha
FATTY ACIDS AND STABLE ISOTOPES AS TRACERS OF FOOD ASSIMILATION
IN FISH-OYSTER-MACROALGAE INTEGRATED MULTI-TROPHIC
AQUACULTURE PONDS

09:40 Sofia Gamito, Hugo Ferreira, Aida Parejo, Joel Aubin, Villy Christensen,
Maria Emilia Cunha
MODELLING THE ECOSYSTEM OF A MULTI-TROPHIC INTEGRATED
PRODUCTION OF FISH, OYSTERS AND MACROALGAE IN EARTHEN PONDS

10:00 Sofia Gamito, Hugo Ferreira, Aida Parejo, Joel Aubin, Villy Christensen,
Maria Emilia Cunha
DYNAMIC MODELLING OF A MULTI-TROPHIC INTEGRATED PRODUCTION OF
FISH, OYSTERS AND MACROALGAE IN EARTHEN PONDS

10:20 Victor Baizeau, Sarah Nahon, Sofia Gamito, Christophe Jaeger, Joël Aubin
IMTA ECOPATH MODEL METHODOLOGY: FOCUS ON A POND POLYCULTURE
SYSTEM

10:40 BREAK

11:10 Ben Shahar, Amir Neori, Muki Shpigel, Lior Guttman
AN INTEGRATED ULVA-PERIPHYTON BIOFILTER FOR BOTH AMMONIA AND NITRATE IN FISHPONDS EFFLUENT

11:30 Jean-Michel Mortillaro, Ezra Andoniaina Raminoharisoa, Diana Edithe Andria-Mananjara, Tiana Herimanana Randriamihanta, Harilala Andriamaniraka, Rija Andriamarolaza, Modestine Raliniaina, Olivier Mikolasek, Lionel Dabbadie, Patrick Andrianetsy, Philippe Martel
IMPROVEMENT OF RICE-FISH CULTURE FROM TROPICAL AGROECOSYSTEMS FERTILIZATION, ANTANANARIVO, MADAGASCAR

11:50 Simon Rukera Tabaro, Onissimo Mutanga, Jean-Claude Micha
NUTRIENT FLOW IN AN INTEGRATED RABBIT-FISH-RICE SYSTEM IN RWANDA

12:10 Domenico Caruso, Reza Samsudin, Angela Lusiasuiti, Desy Sugiani, Simon Pouil, Jacques Slembrouck
ECOLOGICAL INTENSIFICATION OF GIANT GOURAMI PONDS IN INDONESIA: BIOLOGICAL EFFECTS OF *Azolla filiculoides* IN TOTAL OR PARTIAL REPLACEMENT OF COMMERCIAL FEED ON JUVENILES OF GIANT GOURAMI *Osphronemus goramy*

12:30 LUNCH

14:00 Efthimia Cotou, Eleni Fountoulaki, Mando Kotsiri, Alexandros Alexandratos, Morgan Henry, Dimitra Kogiannou, Georgios Rigos, Afrodite Androni, Ageliki Konstadinopoulou, Georgia Assimakopoulou
AVAILABILITY AND ENVIRONMENTAL EFFECTS OF COMMERCIAL FEEDS (FISH MEAL VS. PLANT MEAL BASED) AND FISH FEED WASTE IN AN IMTA SYSTEM OF FISH, FILTER- AND DEPOSIT- FEEDERS: A MULTI-INDICATOR ASSESSMENT APPROACH

14:20 Wenresti Gallardo, Balqees Al-Rashdi, Mohammed Al-Mahfudhi, Gilha Yoon, Hussein Al-Masroori
DEVELOPMENT OF A LAND-BASED RECIRCULATING INTEGRATED MULTI-TROPHIC AQUACULTURE (IMTA) SYSTEM

14:40 José Pintado, Patricia Ruiz, Joan Oca, Ingrid Masaló, Patricia Jiménez, Javier Cremades
STUDY OF THE BACTERIAL COMMUNITIES OF THE SEAWEED *Ulva* spp. HOLOBIONT TO BASE MANAGEMENT STRATEGIES FOR THE CONTROL OF HARMFUL BACTERIA IN IMTA-RAS

- 15:00** **Emmanuelle Roque d'orbcastel**, Mathieu Lutier, Emilie Le Floch, Sarah Nahon, Sébastien Triplet, Thibault Geoffroy, Myriam D. Callier, Eric Fouilland
ROLE OF MICROALGAE IN A LANDBASED MULTI-TROPHIC AQUACULTURE SYSTEM: BIOREMEDIATION, PRODUCTION, BIOCHEMICAL COMPOSITION
- 15:40** **Mark Carras**, Duncan Knowler, Christopher Pearce, Thierry Chopin
ECONOMIC COMPARISON OF SALMON MONOCULTURE VERSUS A THREE-COMPONENT INTEGRATED MULTI-TROPHIC AQUACULTURE (IMTA) SYSTEM: A DISCOUNTED CASH-FLOW ANALYSIS OF AQUACULTURE OPERATIONS IN EASTERN CANADA
- 16:00** **Bertrand Jacquemin**, Jessica Ratcliff, Anna Soler Vila
INTEGRATED MULTI-TROPHIC AQUACULTURE (IMTA) BEST PRACTICES: STATE-OF-THE-ART IN THE ATLANTIC AREA
- 16:20** **Ivo Monteiro**, Maria João Rodrigues, Chloé Placines, Pedro Pousão, Luísa Custódio
ASSESSING THE POTENCIAL OF A MEDICINAL HALOPHYTE SPECIES TO BE PRODUCED IN INTEGRATED MULTI-TROPHIC AQUACULTURE (IMTA) SYSTEMS: GROWTH PERFORMANCE AND FUNCTIONAL PROPERTIES
- 16:40** **Kevan Main**, Suzanne Boxman
DEVELOPING LAND-BASED INTEGRATED MARINE AQUACULTURE SYSTEMS FOR SUSTAINABLE SEAFOOD PRODUCTION
- 17:00** **Oyama Siqwepu**, Khalid Salie, Neill Goosen
OPTIMIZATION OF NUTRIENT INPUT TO INTEGRATED AQUAPONICS SYSTEMS THROUGH MINERAL SUPPLEMENTATION BY WAY POTASSIUM FEED ADDITIVES

PROTEIN AND LIPID SOURCES

Tuesday, August 28 09:00 - 17:20 Pasteur Auditorium

Chair: Sandrine Skiba



LALLEMAND ANIMAL NUTRITION

- 09:00** **Guillaume Le Reste**, Pierrick Kersanté, Luxsanawadee Soonngam, Romain Le Hen, Joël Duperray
EFFECTS OF A SUSTAINABLE MIX OF FREE AMINO ACIDS ON GROWTH PERFORMANCE AND FEED UTILIZATION OF WHITE SHRIMP *Litopenaeus vannamei* JUVENILE REARED IN POND

- 09:20** **Manuela E. Pintado**, Glenise B. Voss, Paulo Rema, M. Manuela E. Pintado, Luisa M.P. Valente
EFFECT OF AUTOCLAVING PROCESS AND ENZYMATIC HYDROLYSIS OF OKARA (BYPRODUCT FROM SOY BEVERAGE) ON GROWTH OF NILE TILAPIA *O. niloticus*
- 09:40** **Theophilus Babalola**, John Olasunkanmi, Omoyemi Omolounnu
EVALUATION OF *Moringa oleifera* SEED MEAL AS REPLACEMENT FOR FISHMEAL IN *Clarias gariepinus* FINGERLING DIETS
- 10:00** **Celine De Maesschalck**, Daniel Lemos, Fanny Yasumaru, Roeland Wouters, Geert Rombaut
IN VITRO SCREENING OF PROTEIN HYDROLYSIS (DH, pH-stat) USING STAGE-SPECIFIC ENZYME EXTRACTS OF *L. vannamei* LARVAE AND POSTLARVAE
- 10:20** **Juan Pablo Lazo**, Jorge Madrid, Camilo Pohlenz, María Teresa Viana
DIETARY LYSINE REQUIREMENT FOR JUVENILE TOTOABA *Totoaba macdonaldi*
- 10:40** **BREAK**
- 11:10** **Anna Fickler**, Stefanie Staats, Gerald Rimbach, Carsten Schulz
INCREASING DHA LEVELS IN RAINBOW TROUT *Oncorhynchus mykiss*
- 11:30** **Mustafa Yildiz**, Tufan O. Erol Dogan, Samuel Ofori-Mensah, Kenan Engin, M. Ali Baltaci
THE EFFECTS OF FISH OIL REPLACEMENT BY VEGETABLE OILS ON GROWTH PERFORMANCE AND FATTY ACID PROFILE OF RAINBOW TROUT: REFEEDING WITH FINISHING DIET IMPROVED BODY HUFA CONTENTS
- 11:50** **Murat Arslan**, Seyda Tacer, Saltuk Bugrahan Ceyhun, Ahmet Topal
MUSCLE EPA AND DHA LEVELS CORRELATE WITH DIETARY LINOLENIC ACID IN VEGETABLE OIL FED RAINBOW TROUT
- 12:10** **Sinem Zeytin**, Carsten Schulz, Bernd Ueberschär
EVALUATING THE GROWTH PERFORMANCE AND DIGESTIVE ENZYME CAPACITY UNDER CONSIDERATION OF NATURAL PRODUCTS FROM COPEPODS IN MICRODIETS FOR SEA BASS *Dicentrarchus labrax* LARVAE
- 12:30** **LUNCH**

- 14:00** **Alvaro Rodriguez Sanchez-Arevalo**, Cristina Garcia, Antonio Martinez, Gustavo Espelleta
EFFECT OF SUPPLEMENTAL ADDITIVE EMULSIFIER ON THE GROWTH PERFORMANCE AND NUTRIENT UTILIZATION IN EUROPEAN SEABASS *Dicentrarchus labrax*
- 14:20** **Julian M. Foerster**
INSECTS AS A SUBSTITUTE FOR FISHMEAL
- 14:40** **Amélie Drouault**, Emily Glenn, Ricardo Ekmay
PRODUCTION OF A HIGH-PROTEIN INGREDIENT FROM WOOD: ARBIOM SYLPRO® IS A NUTRITIONAL, ECONOMICAL, TRACEABLE AND SUSTAINABLE ALTERNATIVE PROTEIN SOURCE FOR USE IN AQUAFEEDS
- 15:00** **Cansu Metin**, Mustafa Hacisa, Yunus Alparslan, Ertan Ercan, Ali Günlü, Taçnur Baygar
EFFECT OF DIFFERENT TEMPERATURE AND TIME APPLICATION IN ULTRASONIC WATER BATH ON THE LIPID QUALITY OF *Schizochytrium* sp.
- 15:40** **Mustafa Hacisa**, Ertan Ercan, Yunus Alparslan, Cansu Metin, Ali Günlü, Taçnur Baygar
EFFECT OF DIFFERENT SOLVENT RATIO USAGE ON LIPID YIELD OF *Schizochytrium* sp.
- 16:00** **David Benhaim**, Alexandra Leeper, Birgir Örn Smárason, Jón Árnason
REPLACING SOY WITH BLACK SOLDIER FLY LARVAE IN AQUAFEEDS FOR JUVENILE ATLANTIC SALMON AFFECTS GROWTH, SWIMMING ACTIVITY AND BOLDNESS
- 16:20** **Willy Verstraete**, Kim Windey, Danny Vanmullem
UPGRADING OF AMMONIA CO₂ AND MINERALS TO MICROBIAL PROTEIN FOR FEED PURPOSES

FORUM: PRODUCTION OF PENAID SHRIMP IN EUROPE - RISKS AND OPPORTUNITIES

Tuesday, August 28 14:00 - 17:20 Sully 3

Chair: Stefan Meyer

This industry forum is presented by Competence Network Aquaculture (KNAQ) and Excellence Cluster Future Ocean of Christian-Albrechts University Kiel, Germany in cooperation with EUROSHRIMP network

- 14:00** **Stefan Meyer**, KNAQ
WELCOME
- 14:10** **Matt Slater**, Euroshrimp / AWI
INTRODUCTION TO EUROSHRIMP NETWORK
- 14:20** **European Commission**
STATUS AND PERSPECTIVES OF EU IMPORT REGULATIONS FOR (LIVE SHRIMP
- 14:40** **Kartik Baruah**, Swedish University of Agricultural Sciences (SLU)
RECENT DEVELOPMENTS IN GLOBAL SHRIMP HEALTH MANAGEMENT
- 15:00** **Craig Browdy**, Zeigler Bros., Inc.
STRUCTURAL ANALYSIS OF THE SHRIMP PRODUCTION SECTOR FROM AN INDUSTRY PERSPECTIVE
- 15:20** **Felipe Vieira**, Universidade Federal de Santa Catarina - UFSC
CURRENT STATUS OF SHRIMP FARMING IN BRAZIL
- 15:40** **Eric De Muylder**, CreveTec
REPRODUCTION OF *P. vannamei* IN EUROPE
- 16:00** **Round Table Session**
- Reproduction of *P. vannamei* in Europe
- Import/export regulation of live shrimp from/to Europe
- Needs for international cooperation in R&D, technology, etc.
- 16:50** **Report from workshop session tables**
- 17:00** **Stefan Meyer**, KNAQ
Conclusion

The workshop results will be published on www.euroshrimp.de/en and through EAS.

GENERAL CONTRIBUTED 2

Tuesday, August 28 14:00 - 17:20 Tiberade

Chair: Javier Roo Filgueira

- 14:00** **Javier Roo**, Carlos Do Pazo, Jose Luis Muñoz
GREATER AMBERJACK AQUACULTURE NATIONAL PLAN - ANP SERIOLA:
DIVERSIFICATION OF SPANISH AQUACULTURE THROUGH THE
OPTIMIZATION OF GREATER AMBERJACK *Seriola dumerili* CULTURE
- 14:20** **Marta Castilla-Gavilán**, Bruno Cognie, Vincent Turpin, Priscilla Decottignies
EVALUATION OF THE NUTRITIONAL VALUE OF DRIED MACROPHYTES AS AN
ALTERNATIVE DIET FOR ADULTS OF THE REARED SEA URCHIN *Paracentrotus*
lividus
- 14:40** **Mohammad Sayyadbourani**, Mohammad Pourkazemi,
Bahman Mohammaditabar, Mahdi Golshan, Alireza Valipour,
SeiedReza Mortezaei
INTRODUCING OF PIKEPERCH *Sander lucioperca* TO AQUACULTURE SYSTEM
IN IRAN
- 15:00** **Fei Xu**, Ferdinand Marlétaz, Daria Gavriouchkina, Tatjana Sauka-Spengler,
Guofan Zhang, Peter Holland
OYSTER INSULIN-LIKE GENES AND THEIR POSSIBLE FUNCTIONS
- 15:20** **BREAK**
- 15:40** **Xiao Liu**, Yanglei Jia, Suping Zhang
EFFECT OF SALINITY ON Na⁺/K⁺-ATPase IN PACIFIC ABALONE
- 16:00** **Robin Muzzerall**, Derek Hori
ARCTIC CHARR PRODUCTION IN CANADA
- 16:20** **Quy Moc Ong**, Ravi Fotedar, Thy Thi Truong Ho
EXTENSION OF ROTIFERS *Brachionus plicatilis* INCLUSIONS AND
ENRICHMENT OF LIVE FOOD WITH PROBIOTIC IN THE LARVAL FEEDING
REGIMES OF MUD CRAB *Scylla paramamosain*: EFFECTS ON SURVIVAL,
GROWTH, METAMORPHOSIS AND DEVELOPMENT TIME
- 16:40** **Christina Kriaridou**, Alexandros Tsakogiannis, Tereza Manousaki,
Stavroula Oikonomou, Nikos Papandroulakis, Constantinos C. Mylonas,
Dimitrios Chatziplis, Costas S. Tsigenopoulos
QTL MAPPING FOR BODY WEIGHT IN EARLY GROWTH STAGES OF COMMON
DENTEX *Dentex dentex*

17:00 **Andrea Franke**, Catriona Clemmesen, Peter De Schryver, Joanna J. Miest, Linsey Garcia-Gonzalez, Till Bayer, Sven Künzel, Peter Bossier, Olivia Roth
THE EFFECT OF POLY- -HYDROXYBUTYRATE ON IMMUNE GENE EXPRESSION, MICROBIAL COMMUNITY AND SURVIVAL IN EUROPEAN SEA BASS LARVAE

GENERAL CONTRIBUTED 3

Tuesday, August 28 14:00 - 17:20 Barthez

Chair: TBA

14:00 **Rosa Chapela**, Margrethe Aanesen, Sveinn Agnarsson, Soren Q. Eliassen, Mercedes Fernández, Stéphane Ganassali, Olavur Gregersen, Birgit Hagen, Xavier Irz, Heather Manuel, Davide Menozzi, Cristina Mora, Francis Murray, Thong Tien Nguyen, Petter Olsen, José L. Santiago, Louis-Georges Soler, Gudmundur Stefánsson, Lucas Sterenn, Björn Suckow, Olga Untilov, Paul S. Valle
THE PRIMEFISH PROJECT: AN OUTLOOK OF THE COMPETITIVENESS AND ECONOMIC SUSTAINABILITY OF THE AQUACULTURE SECTOR

14:20 **Gustavo Espelleta**, Alvaro Rodriguez, Antonio Martinez, Alicia Esteve
EFFECT OF NATURAL FEED ADDITIVE ON THE INFESTATION CAUSED BY *Sparicotyle chysophrii* (MONOGENEA: POLYOPISTHOCOTYLEA) IN GILDHEAD SEABREAM *Sparus aurata*

14:40 **Samuel A.M. Martin**, Carola E. Dehler, Christopher J. Secombes
INTESTINAL MICROBIOTA PROFILE CHANGES FOLLOWING SEAWATER TRANSFER IN ATLANTIC SALMON *Salmo salar*

15:00 **Eliana Marcela Betancur González**, Juan David Cano Gil, Luz Adriana Gutiérrez
VARIABLES ZOOTÉCNICAS Y COMPARACIÓN DE EPITELIOS INTESTINALES EN TILAPIA *Oreochromis* sp. SUPLEMENTADA CON PROBIÓTICOS

TUESDAY

A CONVERSATION WITH THE AQUAFISH INNOVATION LAB ON THE FUTURE OF SUSTAINABLE AQUACULTURE

Tuesday, August 28 14:00 - 17:20 Sully 1

Chair: Hilary Egna

Invited co-chairs: Tran Thi Thanh Hien, Judith Amadiva, Nelson Agbo

- 14:00 Panel One:** Moderator: Nikita Gopal
WHAT IS NEEDED NOW IN 2018 TO MAKE AQUACULTURE A VITAL ENTERPRISE FOR SMALLHOLDERS IN AFRICA?
Invited Panelists: Gertrude Atukunda, Daniel Adjei-Boateng, Narriman Jiddawi, Enos Mac'Were, and Abudala Napuru
- 15:05 Panel Two:** Moderator: Kay Lwintun
EMERGING TECHNOLOGIES FROM AQUAFISH INNOVATION LAB RESEARCH
Invited Panelists: Pham Minh Duc, Nen Phanna, Shahroz Mahean Haque, Sunil Raj, and John Walakira
- 16:10 Panel Three:** Moderator: Maymyat Noe Lwin
SHARED LESSONS FROM HIGH-PRODUCING ASIAN AND LAC COUNTRIES FOR HIGH PRODUCING AFRICAN COUNTRIES
Invited Panelists: Phu Hoa, Yuan Derun, Md. Abdul Wahab, Oludare Adeogun, Victoria Tarus
- 17:10 Session Summary**
Invited Rapporteurs: James Bukenya, Russell Borski, Wilfrido Contreras

TUESDAY

NEW AND FLEXIBLE APPROACHES TO AQUACULTURE LICENSING (TAPAS)

Tuesday, August 28 14:00 - 17:30 Joffre 4

Chair: Frank Kane

This seminar is will deliver the current outcomes of the TAPAS project and detail the suggested new approaches to aquaculture regulation - facilitating engagement with stakeholders in the proceeding workshop

- 14.00 TBC**
THE TAPAS TOOLBOX
- 14.15 Frank Kane, Joanne Casserly & TBC**
NEW TOOLS FOR REGULATION, EFFECTIVE LICENSING AND DECISION MAKING

WORKSHOP – Contribute to new approaches to aquaculture licensing and regulation, and help prioritise issues, by engaging with project partners to shape the outcomes

15.00 BREAK OUT SESSION 1: Stakeholder discussion on new tools and approaches

15.30 BREAK OUT SESSION 2: Stakeholder input on delivery and dissemination of final project outputs

16.00 RAPPORTEUR INPUT FROM BREAKOUT SESSIONS

16.20 CLOSING REMARKS

EXPANDING AQUACULTURE WITHIN THE PLANETARY BOUNDARIES

Tuesday, August 28 14:00 - 17:20 Einstein Auditorium

Chairs: Patrick Henrickson, Max Troell

14:00 **Patrik Henriksson**, Max Troell, Lauren Banks, Ben Belton, Malcolm Beveridge, Dane Klinger, Nathan Pelletier, Michael Phillips, Nhung Tran
AQUACULTURE'S POTENTIAL ROLE AS A SUSTAINABLE PROTEIN SOURCE

14:20 **Max Troell**
TBA

14:40 **Ben Belton**
TBA

15:00 **Dave Little**
TBA

15:20 **Simon Bush**
TBA

TUESDAY

Wednesday, August 29

OUTERMOST REGIONS AND ISLANDS

Wednesday, August 29 09:00 - 10:40 Sully 3

Chair: Ricardo Haroun

- 09:00** **Gercende Courtois de Viçose**, María de Pino Viera, Ricardo Haroun
SUSTAINABLE AQUACULTURE PRODUCTION IN OUTERMOST REGIONS:
FOCUS ON LOCAL AND HIGH-VALUE AQUACULTURE PRODUCTS
- 09:20** **Bruno Minuzzi Schemes**, Andrej Abramic, Ricardo Haroun,
Ana Cristina Matos Costa, Andrea Zita Botelho
AQUACULTURE AND MARINE PROTECTED AREAS: IDENTIFICATION OF
POSSIBLE COEXISTENCE AREAS IN MACARONESIA
- 09:40** **Natacha Nogueira**, Lydia Png-Gonzalez, Carlos Andrade
ENVIRONMENTAL IMPACT ASSESSMENT UNDER MSFD FOR AQUACULTURE
IN THE MACARONESIA
- 10:00** **Fabrice Teletchea**
HOW TO PROMOTE AQUACULTURE DEVELOPMENT IN EUROPEAN
OVERSEAS: THE CASE OF SAINT-PIERRE AND MIQUELON

RESTORATION PROJECTS USING AQUACULTURE ORGANISMS

Wednesday, August 29 09:00 - 10:40 Antigone 1

Chair: Pauline Kamermans

- 09:00** **Jildou Schotanus**, Jacob Capelle, Lennet Leuchter, Johan van de Koppel,
Tjeerd Bouma
USING MUSSELS FROM SPAT COLLECTORS FOR RESTORATION PROJECTS:
THE IMPORTANCE OF PHENOTYPIC PLASTICITY
- 09:20** **Luke Helmer**, Morven Robertson, Jo Meekley, Ian Hendy, Joanne Preston
THE EFFICACY OF SUSPENDED BROODSTOCK CAGES AS A RESTORATION
STRATEGY FOR THE EUROPEAN FLAT OYSTER *Ostrea edulis* (LINNAEUS,
1758): A CASE STUDY IN THE SOLENT, UK
- 09:40** **Pauline Kamermans**, Brenda Walles, Marloes Kraan, Luca van Duren,
Frank Kleissen, Tom van der Have, Aad Smaal, Marnix Poelman
OFFSHORE WIND FARMS AS POTENTIAL LOCATIONS FOR FLAT OYSTER
Ostrea edulis RESTORATION IN THE DUTCH NORTH SEA

- 10:00** **Gianni Brundu**, Simone Farina, Paolo Domenici
RESTOCKING OF SEA URCHIN: LABORATORY-RAISED INDIVIDUALS OF *Paracentrotus lividus* KNOW THE WAY
- 10:20** **Zoë Holbrook**, Antony Jensen, Malcolm Hudson, Morven Robertson, Simon Harding, Chris Hauton
ELEVATED BEDS: A SOLUTION FOR EUROPEAN NATIVE OYSTER RESTORATION?
- 10:40** **Kenneth Leber**, Ryan Schloesser, Paula Caldentey, Nathan Brennan, Charles Peterson
HATCHERY-REARED JUVENILE SNOOK AS ECOLOGICAL PROBES FOR HABITAT QUALITY

TUNA

Wednesday, August 29 09:00 - 11:20 Barthez
Chair: Alejandro Buentello

- 09:00** **Christopher Bridges**, Robert Vassallo-Agius, Dimitra Nousdili, Florian Borutta, Stephan Schulz, Mark Psaila, Salvu Ellul
TUNA OCEAN RESTOCKING (TOR) PILOT STUDY: SEA-BASED HATCHING AND RELEASE OF ATLANTIC BLUEFIN TUNA LARVAE IN THE MEDITERRANEAN FROM A CAPTIVE DNA FINPRINTED BROODSTOCK – THEORY AND PRACTICE
- 09:20** **Sho Shirakashi**, Tomoki Honryo, Masato Kawahara, Kazuo Ogawa
POSSIBILITY FOR NON-DRUG CONTROL OF BLOOD FLUKE INFECTIONS IN FARMED BLUEFIN TUNA
- 09:40** **Amal Biswas**, Takayuki Ohnishi
FEEDING FREQUENCY ON GROWTH AND ENERGY PARTITIONING OF PACIFIC BLUEFIN TUNA *Thunnus orientalis* JUVENILES
- 10:00** **Kathryn Schuller**, Arif Malik, Kathryn Dickson, Ethan Estess, Charles Farwell, Ko Fujioka, Takashi Kitagawa
ONTOGENETIC TRANSITION FROM ECTOTHERMY TO ENDOTHERMY IN PACIFIC BLUEFIN TUNA *Thunnus orientalis*
- 10:20** **Muhammad Siddik**, Janet Howieson, Ravi Fotedar
SUITABILITY OF USING TUNA HYDROLYSATE FROM TUNA *Thunnus maccoyii* PROCESSING INDUSTRY AS AN ALTERNATIVE FISHMEAL PROTEIN SOURCE FOR JUVENILE BARRAMUNDI *Lates calcarifer* (BLOCH, 1790)
- 10:40** **Alejandro Buentello**, Mark Albertson
FORMULATED PACIFIC BLUEFIN TUNA DIETS IMPROVE FLESH QUALITY AND INCREASE SHELF LIFE OF SASHIMI-GRADE PRODUCT

ADAPTATION TO CLIMATE CHANGE AND OCEAN ACIDIFICATION

Wednesday, August 29 09:00 - 12:00 Rondelet

Chair: Lynne Falconer

- 09:00 Lynne Falconer**, Bruce McAdam, Elisabeth Ytteborg, Øystein Hermansen, Solfrid Sætre Hjøllø, Trevor Telfer
CLIMATE CHANGE, SEA SURFACE TEMPERATURE AND SALMON AQUACULTURE IMPLICATIONS
- 09:20 Samuel O. Akande**
MODELLING CLIMATE CHANGE IMPACTS AND ADAPTATION ON AQUACULTURE IN THE GULF OF GUINEA COAST
- 09:40 Sarah Howald**, Louise Cominassi, Hanna Scheuffele, Guy Claireaux, Hélène Ollivier, Nicolas LeBayon, Felix C. Mark
MITOCHONDRIAL METABOLISM UNDER PROLONGED OCEAN ACIDIFICATION AND WARMING IN EUROPEAN SEA BASS HEARTS
- 10:00 Gergo Gyalog**, Mónika Varga, Béla Csukás
IMPACT OF CLIMATE CHANGE ON THE PRODUCTION COSTS IN HUNGARIAN CARP AQUACULTURE
- 10:20 Joao G. Ferreira**, Alhambra M. Cubillo, Pauline Kamermans, Joao Lencart e Silva, Frans-Joost Boogert, Susan Kay, Cornelia Kreiß, Ralf Döring
FORECASTING CLIMATE CHANGE EFFECTS ON SHELLFISH AQUACULTURE: A MODEL ANALYSIS
- 10:40 BREAK**
- 11:10 Thomas Guyondet**, Ramón Filgueira, Luc A. Comeau, Réjean Tremblay, Chris Pearce
BIVALVE AQUACULTURE-ENVIRONMENT INTERACTIONS IN THE CONTEXT OF CLIMATE CHANGE
- 11:30 Gregor Reid**, Helen Gurney-Smith, Mark Flaherty, Amber Garber, Kathy Brewer-Dalton, Duncan Knowler, David Marcogliese, Thierry Chopin, Richard Moccia, Ian Forster, Caitlin Smith, Sena De Silva
CLIMATE CHANGE AND AQUACULTURE: CONSIDERING ADAPTATION POTENTIAL
- 11:50 Erhose Emmanuel Omovwohovie**, P.A. Ekokotu, E.I. Arnold, E.S. Osaide
HAEMATOLOGICAL EFFECT OF IRON AND LEAD ON *Clarias gariepinus* JUVENILES
- 12:10 Doris Soto**, Jorge Leon-Muñoz, Jorge Dresdner, Carol Luengo, Fabian Tapia, Rene Garreaud
SALMON FARMING VULNERABILITY TO CLIMATE CHANGE IN SOUTHERN CHILE AND MANAGEMENT OPTIONS FOR A SUSTAINABLE FUTURE

WEDNESDAY

MedAID Workshop at EAS-WAS 2018
THE IMPORTANCE OF SOCIAL ACCEPTABILITY FOR
MEDITERRANEAN AQUACULTURE DEVELOPMENT:
STOCKTAKING AND THE WAY FORWARD

Wednesday, August 29 09:00 - 12:30 Louisville

Chair: Fabio Massa

Aquaculture in the Mediterranean bordering countries has grown substantially during the past decades, helping meet the rising demand for fishery products, and contributing in increasing food security, employment and economic development. However, further development of aquaculture raises concerns in terms of sustainability in the long term, including from a social perspective. In fact, it is increasingly acknowledged that in many instances, one challenge to aquaculture growth is linked to social concerns and the acceptability of the sector.

Social acceptability of aquaculture development (SA) is an integral part of sustainability and refers to social licence to operate and the degree to which aquaculture activities are accepted or precluded by the public at large. This is an issue being debated in several fora that have highlighted the need to address the SA in terms of increasing the public understanding of aquaculture.

SA is quite an intangible entity influenced by “critical factors” and it can vary according to the general public’s perception and misconception of the sector, to the stakeholders involved and their main characteristics, and to the typology, objective and activities of aquaculture, often linked to local conditions. Understand the drivers that influence SA including social structure, issues and vision of the various individuals, groups and organisations, could help unlock the development potentiality of aquaculture and develop sustainable models that can also contribute building consensus around aquaculture activities.

In this context, the workshop takes stock of current knowledge of SA, on the general public’s awareness of aquaculture and with a special perspective from coastal and local communities, and presents and discusses the preliminary results of a study to assess critical factors, local drivers and peculiarities that influence SA particularly in the Mediterranean region. These will provide the basis for a Q&A session so as to fine-tune and enrich the findings and contribute in increasing knowledge on SA and identify practical actions. The workshop is carried out within the “Social Acceptability and Governance work package (WP-7)” of the EU H2020 MedAID project organized in cooperation with EU H2020 PerformFISH and the outcomes will provide key elements to be considered for the preparation of the “Guidelines in support of SA of sustainable aquaculture development in the Mediterranean” to accompany governance and decision-making processes with practical methods and actions to improve SA.

09:00 OPENING OF THE WORKSHOP

09:30 SESSION 1: FRAMING THE SOCIAL ACCEPTABILITY OF AQUACULTURE

Moderator: Pablo Ávila Zaragoza

This session will propose four presentations delivered by keynote speakers outlining different aspects of SA including the preliminary results of the on-going MedAID study. A few questions from the audience will follow each presentation.

- Public involvement in governance and SA of aquaculture (Marianna Cavallo, Ifremer)
- Consumer attitude towards aquaculture products (Katia Tribilustova, Eurofish)
- Disinformation and SA of aquaculture; A case from Mersin-Turkey (Ferit RAD, Mersin University)
- Preliminary results of the MedAID study to assess critical factors and drivers that influence SA of aquaculture (Davide Fezzardi, FIAM - FAO)

10:30 SESSION 2: PANEL DISCUSSION: SOCIAL ACCEPTABILITY AS KEY DRIVER FOR AQUACULTURE DEVELOPMENT

Moderator: Pablo Ávila Zaragoza

Panel will be composed by representatives from aquaculture farmers, farmers' organizations, administrations dealing with aquaculture (national and local level), NGOs, media, researchers on social aspects of governance and a representation of wholesalers.

The provisional list is as follows: Milena Krasic, Eva Pereiro, Konstantinos Koutsis, Pier Antonio Salvador, Malek Mtimet, Sinan Toplu, Valentina Tepedino, Manel Ben Ismail, Rosa Flos, Bassols (tbc), Jean-Emmanuel Rougier

12:30 OPEN DISCUSSION WITH THE AUDIENCE AND CONCLUSION

WEDNESDAY

ANTIMICROBIALS IN AQUAFEDS, PREBIOTICS AND PROBIOTICS

Wednesday, August 29 09:00 - 12:30 Pasteur Auditorium

Chair: Peter Bossier

- 09:00 Amilcar Arenal**, Adrian Toledo, Laureano Frizzo, Marcelo Signorini, Peter Bossier
IMPACT OF PROBIOTICS ON GROWTH PERFORMANCE AND SHRIMP SURVIVAL: A META-ANALYSIS
- 09:20 Mahmoud Eltholth**, Rachel Lawrence, Toms Joseph, Neelima Nair, Bibin Kalirakath, Mohanakumaran Nair, Francis Murray
ASSESSMENT OF THE EFFECTIVENESS AND COST BENEFIT OF PROPHYLACTIC HEALTH PRODUCTS IN SHRIMP
- 09:40 Mahmoud Eltholth**, William Leschen, Robyn Shilland, David Little, Francis Murray
ASSESSMENT OF THE EFFECTIVENESS AND COST BENEFITS OF PROPHYLACTIC HEALTH PRODUCTS IN AQUACULTURE: A SYSTEMATIC REVIEW
- 10:00 Serge Corneillie**, Victor L. Nsereko, JC Filippi, Don R. McIntyre
INFLUENCE OF FEEDING A *Saccharomyces cerevisiae* FERMENTATION PRODUCT, YEAST FRAGMENTS, OR WHOLE YEAST CELLS ON THE IMMUNE STATUS, MICROBIOTA AND SURVIVAL RATE OF FISH AND SHRIMP
- 10:20 Barbara Rossi**, Maria Angéles Esteban, José María García-Beltrán, Alberto Cuesta, Benedetta Tugnoli, Andrea Piva, Ester Grilli
ANTIMICROBIAL POWER OF VARIOUS NATURE-IDENTICAL COMPOUNDS AGAINST *Vibrio* spp.
- 10:40 BREAK**
- 11:10 Mary Jane S. Apines-Amar**, Christopher Marlowe A. Caipang, Ma. Novie A. Murillo, James David M. Lopez, Edgar C. Amar, Fiona L. Pedroso
ENDOGENOUS PROBIOTICS IMPROVE SURVIVAL AND IMMUNITY IN BLACK TIGER SHRIMP *Penaeus monodon*
- 11:30 Mahmoud Eltholth**, Radi Mohamed, Eman Moustafa, Ahmad Hamza, Foad Farrag, Olivier Decamp, Mahmoud Dawood, Mabrouk Elsabagh
ASSESSING THE IMPACT OF BACILLUS STRAINS MIXTURE PROBIOTIC ON WATER QUALITY, GROWTH PERFORMANCE, BLOOD PROFILE AND INTESTINAL MORPHOLOGY OF NILE TILAPIA *Oreochromis niloticus*

WEDNESDAY

11:50 **Mojgan Khodadadi**, Ali Naseri, Mehran Javaheri Baboli
THE EFFECTS OF AQUALASE ON GROWTH OF *Mesopotamichthys sharpeyi*

12:10 **Françoise Leroi**
BIOPRESERVATION, A NATURAL PRESERVATION TECHNOLOGY USING
SELECTED MICROORGANISMS TO GUARANTY SAFETY AND QUALITY OF
SEAFOOD PRODUCTS

12:30 **Rayaprolu Srinivas**
EFFECT OF PROBIOTICS ON PATHOGENIC *Vibrio* BACTERIAL POPULATIONS
IN CULTURE PONDS OF *Litopenaeus vannamei* AT NAUPADA, SRIKAKULAM
DISTRICT, ANDHRA PRADESH, INDIA

AQUACULTURE IN IRAN

Wednesday, August 29 09:00 - 12:30 Tiberiade

Chair: Hossein Ali Abdolhay

09:00 **Hassan Salehi, Hossein Abdolhay**
FISHERIES AND AQUACULTURE IN ISLAMIC REPUBLIC OF IRAN

MEASURING SUSTAINABILITY IN A CHANGING WORLD

Wednesday, August 29 09:00 - 12:30 Antigone 3

Chair: Tonje Osmundsen

09:00 **Rodrigue Yossa**
CERTIFYING PROFESSIONAL AQUACULTURISTS TO COMPLEMENT FARM
CERTIFICATION?

09:20 **Vilde Steiro Amundsen, Tonje C. Osmundsen**
VIRTUALLY THE REALITY: NEGOTIATING THE DISTANCE BETWEEN
STANDARDS AND LOCAL REALITIES WHEN CERTIFYING SALMON
AQUACULTURE

09:40 **Tonje C. Osmundsen, Vilde S. Amundsen**
PUTTING CERTIFICATION SCHEMES INTO WATER – EXPERIENCES FROM
CERTIFIED FISH FARMERS

10:00 **Emmanuelle Bourgois, Krishna R. Salin, Pau Badia Grimalt,**
Gabriel Arome Ataguba
COMPLIANCE WITH SUSTAINABLE STANDARDS: FOCUS ON SHRIMP FARMS
IN THAILAND

WEDNESDAY

- 10:20** **Emmanuelle Bourgois**, Pau Badia Grimalt, Flavie Denelle
AQUACULTURE STANDARDS AND CERTIFICATION: SOCIAL CERTIFICATION AND LABOR WELFARE
- 10:40** **BREAK**
- 11:10** **Patricia Moraes-Valenti**, Renato Almeida, Wagner C. Valenti
SUSTAINABILITY INDICATORS APPLIED IN TILAPIA'S *Oreochromis niloticus* CAGE FISHFARM IN A BRAZILIAN TROPICAL RESERVOIR
- 11:30** **Emmanuelle Bourgois**, Pau Badia Grimalt
AQUACULTURE STANDARD AND CERTIFICATION: MEASURING SUSTAINABILITY IN A CHANGING WORLD
- 11:50** **Sarah Naughton**, Alex Tahar, Siobhán Kavanagh, Owen Donohue, Andy Fogarty, Neil Rowan
DEVELOPMENT AND TESTING OF MOLECULAR-BASED METHODOLOGIES FOR REAL-TIME PROFILING OF BIOLOGICAL COMMUNITIES IN FRESHWATER AQUACULTURE
- 12:10** **Michaela Fox**, Heather Moore, Matt Service, Moira Dean, Katrina Campbell
AQUACULTURE SECURITY. AN EVALUATION OF THE SOCIAL AND ECONOMIC IMPACTS OF EMERGING THREATS (ALERT): A STAKEHOLDER PERSPECTIVE

SEX DETERMINISM AND CONTROL

Wednesday, August 29 09:00 - 15:40 Joffre 5

Chair: Jean-François Baroiller

- 09:00** **Jean-François Baroiller**, Helena D'Cotta
MALE MONOSEX PRODUCTION IN TILAPIAS: A REVIEW
- 09:40** **Rokyatou Sissao**, Helena D'Cotta, Florence W. Kagambega, Jean-François Baroiller, Aboubacar Toguyeni
PRODUCTION OF XY FEMALES AND YY MALES ASSISTED BY SEX CHROMOSOMIC MARKERS IN A NILE TILAPIA *Oreochromis niloticus* WILD POPULATION FROM BURKINA FASO
- 10:00** **Boris Gomelsky**, Noel Novelo, Shawn Coyle, Alexander Kramer, Jeffrey Warner
GROWTH RATE AND SEX SEGREGATION IN NILE TILAPIA CROSSES OBTAINED USING YY MALES AND NORMAL XX FEMALES OF DIFFERENT ORIGIN

- 10:20 Boris Gomelsky**
SEX CONTROL IN COMMON CARP: THEORETICAL AND PRACTICAL ASPECTS
- 10:40 BREAK**
- 11:10 Paulino Martínez**, Diego Robledo, Xoana Taboada, Carmen Bouza, Antonio Gómez-Tato, Francesc Piferrer, Ana María Viñas
GENETIC ARCHITECTURE OF SEX DETERMINATION IN TURBOT *Scophthalmus maximus*
- 11:30 Sara Faggion**, Marc Vandeputte, Béatrice Chatain, Pierre-Alexandre Gagnaire, François Allal
POPULATION-SPECIFIC VARIATIONS OF THE GENETIC ARCHITECTURE OF SEX DETERMINATION IN WILD EUROPEAN SEA BASS *Dicentrarchus labrax* L.
- 11:50 Alexandros Tsakogiannis**, Tereza Manousaki, Jacques Lagnel, Nikos Papandroulakis, Constantinos C. Mylonas, Costas S. Tsigenopoulos
COMPARATIVE TRANSCRIPTOMICS USING RNA SEQUENCING TO IDENTIFY GENE EXPRESSION SEX-BIAS PATTERNS IN FIVE SPARIDS
- 12:10 Benjamin Geffroy**, Marc Vandeputte, Marie-Odile Blanc, Frédéric Clota, Bastien Sadoul, François Ruelle, Béatrice Chatain, Xavier Cousin, Marie-Laure Bégout
SEX DETERMINATION OF THE EUROPEAN SEA BASS: DECIPHERING THE ROLE OF TEMPERATURE OVER THE WHOLE LARVAL PERIOD TO ENHANCE FEMALE PRODUCTION
- 12:30 LUNCH**
- 14:00 Benjamin Geffroy**, Agnès Bardonnnet
THE ROLE OF DENSITY IN SEX DETERMINATION OF THE EUROPEAN EEL AND THE IDENTIFICATION OF EARLY SEX MARKERS
- 14:20 Saïdou Santi**, Carole Rougeot, Aboubacar Toguyeni, Vincent Gennotte, Charles Mélard
EFFECT OF HIGH TEMPERATURE ON SEX DETERMINISM AND SEX DIFFERENTIATION PROCESS IN AFRICAN CATFISH *Clarias gariepinus*
- 14:40 Helena D’Cotta**, Jean-François Baroiller
EPIGENETICS AND SEX CONTROL IN FISH FARMING
- 15:00 Amir Sagi**
SEX DETERMINATION, SEX CONTROL AND MONOSEX CULTURE IN DECAPODS
- 15:20 Anne-Sophie Martinez**
SEX DETERMINISM IN MOLLUSCS: FROM FUNDAMENTAL RESEARCH TO THE CONTROL OF SEX IN AQUACULTURE

**ACTING TOGETHER TO BETTER PREVENT AND
MITIGATE FARMED SHELLFISH DISEASES
(VIVALDI)**

Wednesday, August 29 09:00 - 17:20 Sully 1
Chair: Isabelle Arzul

08:45 Isabelle Arzul, Ifremer, FR
UNDERSTANDING AND ADDRESSING THE CURRENT THREATS TO EUROPE'S SHELLFISH INDUSTRY BY)

09:15 Rob Christley, University of Liverpool, UK and **Coralie Lupo**, Ifremer, FR
RISK PERCEPTION ACROSS COUNTRIES AND PRACTICES: INTERACTIVE WORKSHOP BASED ON FOCUS GROUPS

10:00 BREAK AND POSTER SESSION

10:30 Session 1: Preventing the entry of diseases
Chair: **Deborah Cheslett**, Marine Institute, IE and **Christophe Stavrakakis**, Ifremer, FR

Brief presentation of the main results of the VIVALDI project

Panel:

Changming Bai, Chinese Academy of Fishery Sciences
PATHOGENESIS AND MOLECULAR EPIDEMIOLOGY OF OSTREID HERPESVIRUS 1 IN CHINA

Corinne Audemard, Virginia Institute of Marine Science, USA
ENSURING THE SAFETY OF SHELLFISH FOR HUMAN CONSUMPTION

Niall Gerlitz, DG for Health and Food Safety, European Commission
AN OVERVIEW OF MOLLUSC ANIMAL HEALTH CONTROLS IN THE EU

12:30 LUNCH

WEDNESDAY

13:30 Session 2: Establishing effective breeding and farming programs against mollusc diseases

Chair: **Sylvie Lapègue** (Ifremer, FR) and **Luca Bargelloni** (UNIPD, IT)

Brief presentation of the main results of VIVALDI

Panel:

Florian Enez (SYSAAF, FR) and **Lucie Genestout** (LABOGENA, FR)

Ross Huston (The Roslin Institute, UK)

Noelia Carrasco Querol, IRTA, ES

A PRODUCTION CALENDAR BASED ON WATER TEMPERATURE, SPAT SIZE AND HUSBANDRY PRACTICES REDUCES HERPESVIRUS IMPACT ON CULTURED PACIFIC OYSTER CRASSOSTREA GIGAS, IN THE EBRO DELTA

15:30 BREAK AND POSTER SESSION

16:00 Session 3: Defining biosecurity measures

Chair: **Dolors Furones** (IRTA, ES) and **Ed Peeler** (CEFAS, UK)

Brief presentation of the main results of VIVALDI

Panel:

Marion Richard, UMR MARBEC, FR

CONSEQUENCES OF OYSTER MORTALITY EPISODES ON BENTHIC-PELAGIC COUPLING OF THE THAU LAGOON (FR)

Achim Janke, Global Prospects / TOPS Oysters Consulting Ltd, New-Zealand
STRATEGIES TO MINIMIZE RISK OF DISEASE AND TO PRODUCE RESILIENT QUALITY OYSTERS

Camille Perche, Maison Gillardeau, FR
THE MANAGEMENT OF OYSTER MORTALITIES

18:00 Rob Christley, University of Liverpool, UK and **Coralie Lupo**, Ifremer, FR
RISK PERCEPTION ACROSS COUNTRIES AND PRACTICES: DEBRIEF AND SYNTHESIS

18:15 CONCLUSIVE ADDRESS

WEDNESDAY

RECIRCULATING AQUACULTURE SYSTEMS

Wednesday, August 29 09:00 - 17:20 Einstein Auditorium

Chairs: Jerome Bosmans, Bertrand Barrut



FAIVRE

- 09:00** **Uri Yogev**, Amit Gross
NOVEL APPROACH FOR RECIRCULATING AQUACULTURE SYSTEMS (RAS), BASED ON MICROBIAL ASSIMILATION (BIOFLOC) SIDE-REACTOR: MODELING AND A PROOF OF CONCEPT
- 09:20** **Aikaterini Spiliotopoulou**, Henrik R. Andersen, Lars-Flemming Pedersen, Colin A. Stedmon, Adam C. Hambly
THE EFFECT OF OZONE ON FLUORESCENT ORGANIC MATTER IN FRESHWATER PILOT RECIRCULATING AQUACULTURE SYSTEMS
- 09:40** **Kevin Torbin Stiller**, Jelena Kolarevic, Carlo C. Lazado, Chris Good, Steven T. Summerfelt, Vasco C. Mota, Bendik F. Terjesen, Åsa M. O. Espmark
TOTAL RESIDUAL OXIDANTS IN ATLANTIC SALMON POST-SMOLT PERFORMANCE, HEALTH AND WELFARE IN BRACKISH WATER
- 10:00** **Mingdong Ji**, Songming Zhu, Jianping Li, Zhangying Ye
SUSPENDED SOLIDS REMOVAL EFFICIENCY OF DIFFERENT MESH SIZE OF MICROSCREENS FILTRATION WITH FOAM FRACTIONATION ON SEAWATER RECIRCULATING SYSTEM FOR GROUPER FARMING
- 10:20** **Jaime Orellana**, Uwe Waller, Bert Wecker
FOAM FRACTIONATION AND OZONE: INTERACTION BETWEEN SALINITY, REDOX POTENTIAL, AND TOTAL RESIDUAL OXIDANTS CONCENTRATION
- 10:40** **BREAK**
- 11:10** **Sharada Navada**, Gerhardus C. Verstege, Bendik Fyhn Terjesen, Øyvind Mikkelsen, Frédéric Gaumet, Vasco C. Mota, Andries Kamstra
BIOFILTER SALINITY CHANGE STRATEGIES FOR ATLANTIC SALMON *Salmo salar* L. POST-SMOLT PRODUCTION IN RECIRCULATING AQUACULTURE SYSTEMS
- 11:30** **Desislava Bögner**, Frederike Schmachtl, Björn Mayr, Lotte Pohl, Lara Hubal, Monja Daub, Gregor Jaehne, Mirko Bögner, Jörn Halfer, Kai Lorkowski, Matthew J. Slater
UP-SCALING OZONE TREATED SLUDGE AS CARBON SOURCE FOR DENITRIFICATION: FROM THE LAB TO RAS WORKING AT COMMERCIAL SCALE

WEDNESDAY

11:50 Carlos Espinal, Zala Schmautz, Ranka Junge, Linda Tschirren, Rob van de Ven
DENITRIFYING ACTIVITY AND SETTLING PROPERTIES OF AQUACULTURE
BIOSOLIDS TREATED IN SINGLE SLUDGE REACTORS

12:10 Lisa Carolina Wenzel, Sebastian Marcus Strauch, Adrian Bischoff,
Olaf Dellwig, Jan Klein, Andrea Schüch, Berit Wasenitz, Harry Wilhelm Palm
COMMERCIAL AFRICAN CATFISH *Clarias gariepinus* RECIRCULATING
AQUACULTURE SYSTEMS: ASSESSMENT OF ELEMENT AND ENERGY
PATHWAYS WITH SPECIAL FOCUS ON THE PHOSPHORUS CYCLE

12:30 Sebastian Marcus Strauch, Adrian Bischoff, Judith Bahr, Björn Bassmann,
Michael Oster, Berit Wasenitz, Klaus Wimmers, Harry Wilhelm Palm
EFFECTS OF ORTHO-PHOSPHATE IN THE REARING WATER OF JUVENILE
AFRICAN CATFISH *Clarias gariepinus* ON GROWTH PERFORMANCE, WELFARE
AND PRODUCT QUALITY

12:50 LUNCH

14:00 Victor Dumas, Laurent Labbé, Pablo Pelissier
RAINBOW TROUT *Oncorhynchus mykiss* FRESHWATER RECIRCULATING
AQUACULTURE SYSTEM: NUTRIENT FLOW MANAGEMENT WITH
AQUAPONICS

14:20 Mirko Bögner, Clara Schwenke, Tammo Gürtzgen, Desislava Bögner,
Matthew J. Slater
AMBIENT LIGHT INTENSITY INFLUENCES GROWTH PERFORMANCE AND
DIURNAL STRESS RESPONSE OF JUVENILE STARRY FLOUNDER *Platichthys
stellatus* IN RECIRCULATING AQUACULTURE SYSTEMS

14:40 Vincent Lugert, Kevin Hopkins, Carsten Schulz, Kristina Schlicht,
Joachim Krieter
THE COURSE OF GROWTH, FEED INTAKE AND FEED EFFICIENCY OF
DIFFERENT TURBOT *Scophthalmus maximus* STRAINS IN RAS

15:00 Ercument Genc, Dogukan Kaya, Derya Guroy, Abdolsaleh Qaranjiki,
M. Ayce Genc
EFFECTS OF DIFFERENT DIETARY OLIGOSACCHARIDES ON GROWTH OF
Clarias gariepinus IN RECIRCULATED AQUACULTURE SYSTEM: TWO YEARS
RESULTS

15:20 Jonni Virtanen
SUPER INTENSIVE RAS TEST WITH CATFISH *Clarias anguillaris*

15:40 BREAK

WEDNESDAY

- 16:00** **Kyra Hoevenaars**, Julian Mamo, Ephraim Gukelberger, Paw Petersen, Susan Claire Adhiambo, Robert Kinyua, Jan Hoinkis
 INTERGRATED AQUACULTURED BASED ON SUSTAINABLE WATER RECIRCULATING SYSTEM FOR THE VICTORIA LAKE BASIN (VICINAQUA)
- 16:20** **Fengdeng Zhang**, Songming Zhu, Peiqi Zhang, Zhangying Ye
 EXPERIMENTAL STUDY ON FEEDING ACCURACY OF THE PROJECTION TYPE OF QUANTITATIVE FEEDING MACHINE IN RAS
- 16:40** **Pakamas Sreejariya**
 FISH CULTURE INTEGRATED WITH VEGETABLE IN WATER RECIRCULATING SYSTEM IN URBAN AREA
- 17:00** **Robert Bishop**
 MARINE ENVIROMENTAL RECIRCULATION AQUACULTURE PRODUCTION SYSTEM FOR HIGH VALUE SPECIES IN BOTH 1ST AND 3RD WORLD COUNTIES

CAGE CULTURE

Wednesday, August 29 11:10 - 12:30 Antigone 1

Chair: Hans Bjelland

- 11:10** **Nina Bloecher**, Oliver Floerl, Torfinn Solvang
 ASSESSMENT OF NOVEL ANTIFOULING COATINGS FOR SALMON FARMING
- 11:30** **Zsolt Volent**, Birger Venås, Jens Birkevold, Leif Magne Sunde
 VARIATION OF DISSOLVED OXYGEN (DO) IN FISH CAGES WITH SHIELDING SKIRT FOR PREVENTION OF SALMON LICE *Lepeophtheirus salmonis*
- 11:50** **Martin Føre**, Eirik Svendsen, Kevin Frank, Nina Bloecher, Leif Magne Sunde
 DEVELOPING PRECISION FISH FARMING: UNVEILING LINKS BETWEEN OBSERVABLE BEHAVIOUR AND PHYSIOLOGICAL STATES IN FARMED FISH
- 12:10** **Eleni Kelasidi**, Walter Caharija, Esten Ingar Grøtli, Martin Føre, Leif Magne Sunde
 DESIGN OF AUTONOMOUS ROBOTS FOR SEA BASED AQUACULTURE USING THE SEATONOMY METHOD

NATIONAL AQUACULTURE POLICIES AND REGULATIONS

Wednesday, August 29 11:10 - 12:30 Sully 3

Chair: Giovanna Marino

- 11:10 Rodrigue Yossa, Johan Verreth**
WORLD FISH RESEARCH IN FISH FEEDS AND NUTRITION
- 11:30 Trevor C. Telfer**
TOOLS, MODELS AND DECISION SUPPORT SYSTEMS FOR POLICY AND GOVERNANCE: THE 'TAPAS' PROJECT
- 11:50 Bertrand Jacquemin, Michèle Barbier, Bénédicte Charrier, Rita Araujo, Susan Holdt, Céline Rebours**
PEGASUS – PHYCOMORPH EUROPEAN GUIDELINES FOR SUSTAINABLE AQUACULTURE OF SEaweEDS
- 12:10 Malcolm Dickson, Naseem Aleem, Shahrear Kabir**
USING MARKET SYSTEMS APPROACHES TO LEVERAGE PRIVATE SECTOR AQUACULTURE INVESTMENT IN BANGLADESH
- 12:30 Qingyin Wang**
GREEN DEVELOPMENT – A RATIONAL APPROACH TO SUSTAINABLE AQUACULTURE

WEDNESDAY

RESEARCH PRIORITIES IN SUPPORT OF COMMERCIAL AQUACULTURE: A GLOBAL OVERVIEW

Wednesday, August 29 09:00 - 17:20 Sully 2

Chair: Matt Slater

Journal of the

World Aquaculture Society

- 09:00 Ragnar Tveterås**
WHAT KEY ECONOMIC DRIVERS OR SHOCKS ARE LIKELIEST TO AFFECT FUTURE GROWTH OF AQUACULTURE WORLDWIDE?
- 09:20 Doris Soto, Lindsay Ross, Pedro Bueno, Lionel Dabbadie, Malcolm Beveridge, Jose Aguilar-Manjarrez, Neil Handisyde**
RESEARCH NEEDS TO ADDRESS AQUACULTURE VULNERABILITY UNDER CLIMATE CHANGE
- 09:40 Bela Buck**
OFFSHORE AQUACULTURE ADVANCES AND FUTURE RESEARCH NEEDS

- 10:00 Denis Covès**, Lionel Dabbadie, François Herman, Fabrice Teletchea,
Jean-Claude Falguière
RESEARCH PRIORITIES FOR A SUSTAINABLE MARINE FINFISH FARMING
DEVELOPMENT IN SMALL ISLANDS TERRITORIES
- 10:20 Simon Bush**
QUALITY CERTIFICATION AND GOVERNANCE OF AQUACULTURE IN GLOBAL
SOUTH
- 10:40 BREAK**
- 11:10 Aad Smaal**
BIVALVE AQUACULTURE, GLOBAL CHALLENGES
- 11:30 Wagner Valenti**
ADVANCES AND FUTURE NEEDS FOR INTEGRATED AQUACULTURE SYSTEM
DEVELOPMENT
- 11:50 Yoram Avnimelech**
RESEARCH PRIORITIES IN BIOFLOC TECHNOLOGY: SINGLE SPECIES OR
MIXED MICROBIAL COMMUNITY
- 12:10 Iddya Karunasagar**
RESEARCH PRIORITIES TO REDUCE LOSSES TO DISEASE IN AQUACULTURE
- 12:30 LUNCH**
- 14:00 Patrick Sorgeloos**
NEED FOR MORE RESEARCH IN MICROBIAL MANAGEMENT TO MAKE
INTENSIVE AQUACULTURE MORE SUSTAINABLE
- 14:20 Mathilde Dupont-Nivet**
GENETICS AND AQUAFEEDS: CURRENT AND FUTURE RESEARCH NEED
- 14:40 Caird Rexroad**
REVIEW OF ADVANCES IN GENETICS AND BREEDING OF MAJOR U.S.
AQUACULTURE SPECIES AND FUTURE NEEDS
- 15:00 Michael Schwarz**, Jerome Bosmans, Chad Clayton, Stephen Urick
LARVAL FEEDS FOR HIGH-VALUE FOODFISH AND ORNAMENTAL/
CONSERVATION AQUACULTURE: RESEARCH NEEDS TO INCREASE LIVE
FEEDS QUALITY, SAFETY, BIOSECURITY, AND OPTIMIZATION OF LARVAL
PRODUCTION PROTOCOLS

- 15:20 Bente E. Torstensen**
RESEARCH PRIORITIES TO SUPPORT SUSTAINABLE DEVELOPMENT OF ATLANTIC SALMON AQUACULTURE IN NORWAY
- 15:40 BREAK**
- 16:00 David Little**, John Bostock, Stuart Bunting, William Leschen, Mahmoud Eltholth, Richard Newton, Francis Murray
RESEARCH NEEDS IN SUPPORT OF GROWTH OF SMALL-SCALE AQUACULTURE GLOBALLY
- 16:20 Fabrice Teletchea**, Andrew Rhyne, Michael Tlusty
AQUARIUM FISH AQUACULTURE: OVERVIEW AND EMERGING QUESTIONS

ASSESSMENT AND MITIGATION OF ENVIRONMENTAL IMPACT

Wednesday, August 29 11:30 - 17:20 Barthez

Chair: Thomas Guyondet

- 11:30 Diana Edithe Andria-Mananjara**, Modestine Raliniaina, Philippe Martel, Rija Andriamarolaza, Ezra Andoniaina Raminoharisoa, Lionel Dabbadie, Jean-Michel Mortillaro
CHARACTERIZATION OF CONTAMINATION LEVELS AND SOURCES IN FRESHWATER FISH FROM ANTANANARIVO, MADAGASCAR
- 11:50 Charles Vanhuysse**, Melanie Lepoittevin, Christiane Rakotomalala, Clarisse Mallet, Christophe Lelong, Fabrice Pernet, Francis Orvain
IS THE BENTHIC HABITAT OF OYSTER TABLES THE IDEAL SHELTER FOR THE PATHOGENIC AGENT OsHV-1 μ var PERSISTENCE: AN ENVIRONNEMENTAL STUDY
- 12:10 Arnaldo Marín**, Claudia Marín, Nuria García-Bueno
BIOFILM AS TOOL TO EVALUATE ORGANIC AND CHEMICAL DISPERSION FROM MARINE FISH FARMS
- 12:30 LUNCH**
- 14:00 Stephen Cross**, Allison Byrne
THE STRUCTURE AND FUNCTION OF “THE SALMON FARM REEF” – IT’S NOT SIMPLY BIOFOULING

- 14:20 Romain Pete**, Marion Richard, Béatrice Bec, Valérie Derolez, Franck Lagarde, Thomas Guyonnet, Stéphane Pouvreau, Annie Fiandrino
THE TROPHIC CARRYING CAPACITY OF THE THAU LAGOON: DEALING WITH HUMAN ACTIVITIES AND ECOLOGICAL CONSERVATION
- 14:40 Clémence Cordier**, Christophe Stavrakakis, Béatrice Dupuy, Mathias Papin, Patrick Sauvade, Franz Coelho, Philippe Moulin
ULTRAFILTRATION: A SOLUTION FOR SHELLFISH AQUACULTURE
- 15:00 Daniele Brigolin**, Andrea Alberto Forchino, Vincent Gennotte, Charles Mélard, Roberto Pastres
APPLICATION OF THE LIFE CYCLE APPROACH TO THE SET-UP OF A PILOT AQUAPONIC FACILITY IN BELGIUM
- 15:20 Christophe Jaeger**, Pierre Foucard, Aurélien Tocqueville, Sarah Nahon, Joël Aubin
ENVIRONMENTAL ASSESSMENT OF AQUAPONICS: THE LETTUCE POINT OF VIEW
- 15:40 BREAK**
- 16:00 Pierre-Alexandre Willot**, Joël Aubin, Aurélie Wilfart
VALUATING POTENTIAL ECOSYSTEM SERVICES OF A FRENCH POND FARM WITH A LIFE-CYCLE ORIENTED METHODOLOGY
- 16:20 Sinem Zeytin**, Gretchen Wagner, Gunnar Gerdtts, Matthew James Slater
TRANSLOCATION OF MICROPLASTIC IN SEA BASS *Dicentrarchus labrax* FILET
- 16:40 Carlos A. P. Andrade**, Natacha Nogueira, Pedro Diniz, Silvestre França
MONITORING THE EFFECT OF SEA PLASTICS IN MADEIRA ISLAND OFFSHORE FISH FARMS: IS THE THREAT REAL?
- 17:00 Alessio Gomiero**, Kjell Birger Øysæd, Leon Moodley, Elisa Ravagnan, Thorleifur Agustsson, Luca Bolognini, Fabio Grati
FIRST RECORD OF LEVELS AND DISTRIBUTION OF MICROPLASTICS IN COASTAL SEDIMENTS COLLECTED NEAR AN AQUACULTURE SITE IN THE SOUTHWEST OF NORWAY

AQUARIOLOGY – ROLE OF PUBLIC AQUARIA

Wednesday, August 29 14:00 - 17:20 Tiberiade

Chair: Nicolas Hirel

DEVELOPMENT, WELFARE AND POVERTY ALLEVIATION

Wednesday, August 29 14:00 - 15:40 Antigone 3

Chair: Mark Flaherty

- 14:00** **Marc Oswald**, Henri-Joël Niamien K., Mohamed Diaby B., Moïse Théa C., Thimothé Niamien Y., Barbara Bentz, Olivier Mikolasek, Celestin Blé M., Joseph Kaudhis K., Sidiki Keita
TWENTY YEARS AFTER ITS EMERGENCE, WHAT HAS HAPPENED TO FISHFARMING DIVERSIFICATION IN FRENCH WEST-AFRICA (THE EXAMPLE OF COTE D'IVOIRE AND GUINEA)
- 14:20** **Mark Flaherty**, Sean Irwin
EXPLORING THE RELATIONSHIP BETWEEN NEW AQUACULTURE SYSTEMS AND FOOD SECURITY: INSIGHTS FROM THE BOLIVIAN AMAZON
- 14:40** **Friday G. Ogbe**
AN ASSESSMENT OF CONSTRAINTS TO AQUACULTURE PRODUCTION IN CENTRAL NIGERIA

STURGEON

Wednesday, August 29 14:00 - 17:20 Rondelet

Chair: Harald Rosenthal

- 14:00** **Harald Rosenthal**
OUTCOME OF THE 8TH INTERNATIONAL SYMPOSIUM ON STURGEONS (ISS 8) AND THE “VIENNA 2018 DECLARATION ON GLOBAL STURGEON CONSERVATION”
- 14:20** **Paolo Bronzi**, Harald Rosenthal
STATUS UPDATE ON GLOBAL STURGEON AND CAVIAR PRODUCTIONS TO THE END OF 2016
- 14:40** **Harald Rosenthal**
EXPANDING THE KNOWLEDGE BASE ON “CULTURE REQUIREMENTS TO PRODUCE STRONG JUVENILES FOR RELEASE”: THE NEED TO TRAIN FISH FOR FITNESS OF SURVIVAL IN A HARSH ENVIRONMENT

WEDNESDAY

- 15:00 Leonardo Congiu**
AQUACULTURE FOR CONSERVATION: THE CASE OF STURGEONS
- 15:20 Paolo Bronzi**, E. Boscari, G. Arlati, A. Nocita, G. Caramori, L. Congiu
RESTORATION OF THE ADRIATIC STURGEON *Acipenser naccarii*: 30 YEARS OF ACTION
- 15:40 BREAK**
- 16:00 Jutta Jahl**
THE NEED TO CONTROL ILLEGAL CAVIAR TRADE: NEW INSIGHTS FROM SURVEY STUDIES
- 16:20 Robert Tillner**, Florian Nagel, Hanno Slawski
GROWTH AND HEALTH PROMOTING FEEDS FOR STURGEON
- 16:40 Patrick Williot**, Mikhail Chebanov, Guy Nonnotte
STURGEON CONSERVATION AND CULTURE ISSUES: THE EXAMPLE OF THE SIBERIAN STURGEON *Acipenser baerii* (BRANDT, 1869)
- 17:00 Sergio Giovannini**, John Giovannini
WHAT CONTRIBUTION AND ROLE CAN THE STURGEON AQUACULTURE AND THE CAVIAR PRODUCTION CHAIN HAVE TODAY IN FAVOUR OF THE CONSERVATION AND PROTECTION OF STURGEON SPECIES?
- 17:20 Elena N. Ponomareva**, Gennady F. Metallov, Marina N. Sorokina, Vadim A. Grigoriev
DYNAMICS OF BIOCHEMICAL PROCESSES IN THE REPRODUCTIVE CYCLE OF FEMALES OF HYBRID STERLET \times GREAT STURGEON *Acipenser ruthenus* (LINNAEUS, 1758) \times *Huso huso* (LINNAEUS, 1758) WHEN CULTIVATED IN RAS

MARINE AND FRESHWATER CRUSTACEAN CULTURE

Wednesday, August 29 14:00 - 17:20 Sully 3
Chair: Michael New, Michael Schwarz, William Daniels

- 14:00 Darryl Jory**, James Anderson
THE GLOBAL SHRIMP FARMING INDUSTRY: STATUS, CHALLENGES AND PERSPECTIVES
- 14:20 Ana Nobre**, Renata Serradeiro, Luisa M.P. Valente, Ingrid Lupatsch
EVALUATION OF THE BIOENERGETIC AND PROTEIN FLUX MODEL FOR GROWTH SIMULATION OF THE PACIFIC WHITE SHRIMP *Litopenaeus vannamei*

- 14:40 Ricardo Perez-Enriquez**, Raúl Llera-Herrera, Diego Robledo, Ross Houston
SNP MARKERS FOR THE GENETIC CHARACTERIZATION OF MEXICAN SHRIMP BROODSTOCKS
- 15:00 Eliahu D. Aflalo**, V.S.N. Dandu Raju, Naidu A. Bommi, Ofer Ovadia, Amir Sagi
TWO-GENERATION SELECTIVE BREEDING PROGRAM FOR PRAWN GENDER SPECIFIC GROWTH
- 15:20 Pablo Jiménez-Prada**, Salvador Jerez, José Antonio Pérez, Covadonga Rodriguez, Ismael Hachero-Cruzado, José Manuel Guerra-García
EFFECT OF LYOPHILIZATE *Gammarus insensibilis* (CRUSTACEA:AMPHIPODA) IN GROWTH, CHEMICAL COMPOSITION AND SURVIVAL OF *Seriola dumerili*

PARASITES

Wednesday, August 29 14:00 - 17:20 Louisville
Chair: Annemie Decostere

- 14:00 Diego Robledo**, Alejandro P. Gutierrez, Agustin Barria, Jose M. Yanez, Ross D. Houston
GENOMIC APPROACHES TO UNDERSTANDING AND IMPROVING RESISTANCE TO SEA LICE IN ATLANTIC SALMON
- 14:20 Bengt Finstad**, Ingrid Solberg, Kevin Frank, Crawford Revie, Jaewoon Jeong, Ola Diserud, Rolf Sivertsgård, Ingebrigt Uglem, Ane V. Nytrø, Johan H.H. Berntsen, Leif Magne Sunde, Trine Thorvaldsen, Torfinn Solvang, Kari Olli Helgesen, Anja Bråthen Kristoffersen
KNOWLEDGE FOR INCREASED PRECISION IN SEA LICE COUNTING ON FISH FARMS AND ESTIMATION OF OCCURRENCE
- 14:40 Lydie Canier**, Christine Dubreuil, Mathilde Noyer, Delphine Serpin, Yann Couraleau, Bruno Chollet, Céline Garcia, Isabelle Arzul
DEVELOPEMENT OF A NEW MULTIPLEX PCR ASSAY FOR THE CONCOMITENT DETECTION OF ENDEMIC LISTED PATHOGENS OF FLAT OYSTERS: *Marteilia refringens* AND *Bonamia* sp.
- 15:00 Amit Savaya-Alkalay**, Hanoch Glassner, Rakefet Chishinski, Ndeye Diane, Eliahu D. Aflalo, Amir Sagi
MONOSEX PRAWNS AS SUSTAINABLE BIOCONTROL AGENTS OVER DISEASE CARRYING SNAILS IN AQUACULTURE
- 15:20 Erhose Emmanuel Omovohwovie**, A.O. Adeyemo, L. Fineroad, S.O. Egwono, O. Preye, C.O. Blessing
PARASITES OF *Oreochromis niloticus* OBSERVED IN THE FISHERIES UNIT OF THE NIGER DELTA UNIVERSITY TEACHING AND RESEARCH FARM

- 15:40 Francisco Esteban Montero**, Javier Rodríguez-Llanos,
José Francisco Palacios-Abella
PARASITE PATHOGENS OF THE ATLANTIC BLUEFIN TUNA *Thunnus thynnus*
IN THE MEDITERRANEAN SEA

OCEAN AQUACULTURE

Wednesday, August 29 14:00 - 17:20 Antigone 1

Chair: Hans Bjelland

- 14:00 Michael Rubino**, Michael Rust
SCIENCE TO INFORM THE DEVELOPMENT AND REGULATION OF OFFSHORE
AQUACULTURE
- 14:20 Bela H. Buck**
ENABLING OFFSHORE AQUACULTURE – TRANSLATING POTENTIAL TO
PRODUCTION
- 14:40 Hans Bjelland**, Leif Magne Sunde, Martin Føre
KEY CHALLENGES TO SALMON FARMING AT EXPOSED SITES IN NORWAY
- 15:00 Heðin Abrahamsen**
PLANNING WAVE AND CURRENT MEASUREMENTS AT AQUACULTURE SITES
IN EXPOSED AREAS
- 15:20 Finn Are Michelsen**, Pascal Klebert, Ole Jacob Broch, Morten Alver
THE EFFECTS OF FISH FARM STRUCTURES ON NEAR-FIELD WATER
CURRENTS: A CASE STUDY FROM FRØYA, CENTRAL NORWAY
- 15:40 BREAK**
- 16:00 Laurent Barillé**, Pierre Gernez, Yoann Thomas, Stéphane Simis, Glize Philippe,
Anthony LeBris, Frank Kane, Lynne Falconner, Philippe Gouletquer,
Patrice Guillotreau, Brice Trouillet, Stéphanie Palmer
OFF-SHORE CULTIVATION FOR SMALL OYSTER-FARMING COMPANIES IN
FRANCE: POTENTIAL AND CONSTRAINTS
- 16:20 Kevin Heasman**, Nicholas Scott, Bela H. Buck, Nils Goseberg,
Arndt Hildebrandt, Arne Fredheim, Peter Vitasovich, Andrew Elliot,
Zane Charman, Jannis Landmann, Ross Vennell, Malcolm Smeaton,
Keith Alexander, Sam Godsiff
EXTENDING SHELLFISH CULTURE INTO OPEN OCEAN EXPOSED SITES IN
NEW ZEALAND

16:40 Paul Olin, Everard Ashworth
THE VENTURA SHELLFISH ENTERPRISE: OPPORTUNITIES FOR MUSSEL
FARMING IN SOUTHERN CALIFORNIA

17:00 Carly Daniels, Charlie Ellis, Peter Miller
NOVEL SHELLFISH AQUACULTURE: EUROPEAN LOBSTER –
ENVIRONMENTAL MONITORING TO INFORM REARING SUCCESS

NUTRITIONAL REQUIREMENTS – FINFISH/CRUSTACEANS

Wednesday, August 29 14:00 - 17:20 Pasteur Auditorium

Chair: Marisol Izquierdo



14:00 Brett D. Glencross
MODELLING THE APPLICATION OF THE IDEAL PROTEIN CONCEPT IN
SHRIMP

14:20 Gabriela Gaxiola, Gerard Cuzon, Alfonso Alvarez, Martin Arenas,
Bartolo Concha, Iratzio Lémus, Juan Carlos Maldonado
NUTRITION OF ROBALO *Centropomus undecimalis* JUVENILES

14:40 Gerd Marit Berge, Elisabeth Ytteborg, Henrik Sundh, Tone-Kari Østbye,
Lene Sveen, Kristina Sundell, Aleksei Krasnov, Bente Ruyter
OMEGA-3 FATTY ACIDS AND ZINC AFFECT ROBUSTNESS AND FUNCTION OF
BARRIER TISSUES IN ATLANTIC SALMON *Salmo salar*

15:00 Pauline Wischhusen, Maroussia Parailloux, Mickael Briens,
Pierre-André Geraert, Antony Jesu Prabhu, Sadasivam J. Kaushik,
Benoit Fauconneau, Stéphanie Fontagné-Dicharry
EFFECT OF ORGANIC AND INORGANIC DIETARY SELENIUM
SUPPLEMENTATION IN RAINBOW TROUT *Oncorhynchus mykiss*
BROODSTOCK ON THE OXIDATIVE STATUS IN PROGENY

15:20 Jan Giebichenstein, Julia Gossa, Bjarne Scholz, Carsten Schulz,
Bernd Ueberschär
SEEKING THE OPTIMAL DOSE OF MICRO NUTRIENTS IN ARTIFICIAL DIETS
FOR MARINE FISH LARVAE

15:40 BREAK

WEDNESDAY

- 16:00** **Neda Gilannejad**, Gonzalo Martínez-Rodríguez, Manuel Yúfera
FEEDING PROTOCOL MODULATES THE DAILY GASTROINTESTINAL TRANSIT
IN GILTHEAD SEABREAM JUVENILES
- 16:20** **Gabriela Gaxiola**, Adriana Da Silva, Ana Castillo, Gerard Cuzon,
Juna Carlos Maldonado, Alfonso Alvarez
SOME ASPECTS OF NUTRITIONAL PHYSIOLOGY OF WILD JUVENILES
Epinephelus morio
- 16:40** **I. Patrick Saoud**, Mohammad Abiad, Nivin Nasser
REPLACING SOYBEAN MEAL WITH RESTAURANT FOOD WASTE IN TILAPIA
FEEDS IMPROVES PRODUCTION
- 17:00** **I. Patrick Saoud**, Mohammad Abiad, Nivin Nasser
SUPPLEMENTING COMMERCIAL FEED WITH RESTAURANT PLATE-FOOD
WASTE IN TILAPIA AQUACULTURE

NOTES

WEDNESDAY