

aquaculture
europe 09

The logo for Aquaculture Europe 09 features a stylized, abstract graphic on the right side. It consists of several overlapping, curved shapes in shades of gray and black, forming a circular, spiral-like pattern that suggests a globe or a stylized 'e'.

SATURDAY, August 15

AQUACULTURE EUROPE 09 OPENING SESSION

Saturday, August 15 09:00-10:45 Room R1

Helge Reintertsen, Aquaculture Europe 09 Steering Committee Chair
INTRODUCTION AND WELCOME

Prof. Ingvald Strømme, Dean of Faculty of Engineering Science and Technology of the
Norwegian University of Science and Technology (NTNU)
OFFICIAL WELCOME

Selina Stead, President of European Aquaculture Society
OPENING ADDRESS

Odd Berg, Director Nor-Fishing Foundation
WELCOME

PLENARY

Saturday, August 15 09:45 - 10:30 Room R1

09:45 Jan Olafsen
BLUE BIOTECHNOLOGY – WHERE NEXT?

FROM WASTE TO TASTE

Saturday, August 15 10:50 - 12:30 Room R5

Chairs: Turid Rustad, Begoña Perez Villarreal

- 10:50 Mette Sørensen**, Torbjørn Åsgård
THE USE OF SALMON INDUSTRY BY-PRODUCTS AND 'GELLYFEED' TECHNOLOGY TO PRODUCE FEED FOR ATLANTIC COD *Gadus morhua*
- 11:10 Esther Sanmartin**, Juan Carlos Arbolea, Mar Villamiel, Francisco Javier Moreno
PROTEIN GLYCATION AS ALTERNATIVE METHOD FOR FUNCTIONAL PROTEIN DEVELOPMENT FROM FISH PROCESSING BY-PRODUCTS
- 11:30 Mahmoudreza Ovissipour**, Reza Safari, Ali Motamedzadegan, Asbjorn Gildberg, Barbara Rasco, Bahareh Shabanpour
YELLOWFIN TUNA *Thunnus albacares* HEAD WASTES AS A NITROGEN SOURCE FOR BACTERIA GROWTH MEDIA
- 11:50 Hadi Ershad Langroudi**, Abbas Hamrang
COMPARING MINCED AND SURIMI PRODUCTION YIELD FROM CRUCIAN CARP *Carassius auratus gibelio* AND SILVER CARP *Hypophthalmichthys molitrix*

BENEFITING FROM ACCELERATING GENOMIC RESEARCH

Saturday, August 15 10:50 - 17:30 Room R8

Chairs: Patrick Prunet, Augustine Arukwe

- 10:50 Beatrix Beres**, Balázs Kovács, Tamás Müller, Béla Urbányi
MORPHOLOGICAL DETERMINATION AND GENETIC IDENTIFICATION OF HUNGARIAN BULLHEAD CATFISH POPULATIONS
- 11:10 Sten Karlsson**, Thomas Moen, Kjetil Hindar
A GENOMIC APPROACH TO STUDY GENETIC INTERACTION BETWEEN FARM AND WILD ATLANTIC SALMON *Salmo salar* L.
- 11:30 Sophie Hubert**, Brent Higgins, Tudor Borza, Cynthia Stone, Gary Simpson, Matthew L. Rise, Marije Booman, Sharen Bowman
ATLANTIC COD GENOMICS IN CANADA: PROGRESS IN MARKER DEVELOPMENT, LINKAGE MAPPING AND OLIGONUCLEOTIDE MICROARRAY CONSTRUCTION
- 11:50 Aaron Maloy**, Sarah Culloty, Majbritt Bolton-Warberg, Richard Fitzgerald, John Slater
MOLECULAR IDENTIFICATION OF LASER MICRODISSECTED GUT CONTENTS OF LARVAL COD *Gadus morhua*
- 12:10 LUNCH**
- 14:30 Thomas Moen**, Matthew Baranski, Anna Sonesson, Sissel Kjøglum
A QTL FOR RESISTANCE TO INFECTIOUS PANCREATIC NECROSIS IN ATLANTIC SALMON: POTENTIAL FOR MARKER-ASSISTED SELECTION AT THE POPULATION LEVEL

- 14:50 Matthew Baranski**, Nick Robinson
THE IMPACT OF NEXT GENERATION GENOMICS TECHNOLOGIES ON AQUACULTURE PRODUCTION: CURRENT STATUS AND FUTURE PROSPECTS
- 15:10 Edo D'Agaro**, M. Cimolino, L. Jacumin
A CHEAP AND RELIABLE PCR-BASED MOLECULAR METHOD FOR THE AUTHENTICATION OF PANGASIUS *P. hypophthalmus* AND OTHER FISH SPECIES
- 15:30 Jehee Lee**, Qiang Wan
MOLECULAR CLONING AND EXPRESSION ANALYSIS UNDER ENDOCRINE DISRUPTING CHEMICALS (EDCS) EXPOSURE OF DISK ABALONE CYTOCHROME P450 ENZYMES
- 15:50 Yan Zhang**, Han Yu, Yong-Shuang Xiao, Tianxiang Gao
ANALYSIS OF GENETIC DIVERSITY OF *Pleuronectes yokohamae* BY AFLP MARKERS
- 16:10 Patrick Prunet**, Yvan Le Bras, Jerome Montfort, Claudiane Valotaire
EFFECTS OF DIRECT TRANSFER TO HYPEROSMOTIC ENVIRONMENT ON GILL TRANSCRIPTOME IN RAINBOW TROUT

THE CHALLENGES OF NEW FEED RESOURCES 1

Saturday, August 15 10:50 - 17:30 Room R1

Chairs: Sachi Kaushik, Trygve Sigholt

Session Sponsor: BIOMAR

- 10:50 Rune Waagbø**, E. Å. Bendiksen, G-I. Hemre, K. S. Ekmann, A. Guttvik
VITAMIN AND MINERAL SUPPLEMENTS IN FEED FOR RAINBOW TROUT
- 11:10 Anne Marie Bakke**, Gro-Ingunn Hemre, Heidi Amlund, Marit Aursand, Rolf Erik Olsen, Einar Ringø, Birger Svihus
CRITERIA FOR SAFE USE OF PLANT INGREDIENTS IN DIETS FOR AQUACULTURED FISH
- 11:30 Elvis Chikwati**, Anne-Marie Bakke, Michael H. Penn, Thor Landsverk, Ståle Refstie, Inger Rudshaug, Åshild Krogdahl
EFFECT OF TEMPERATURE AND DIET COMPOSITION ON THE INTESTINAL EPITHELIAL CELL DYNAMICS IN ATLANTIC SALMON *Salmo salar* L.
- 11:50 Michael Penn**, Ingunn Thorland, Ståle Refstie, Terje Refstie, Rune Olsen, Anne Marie Bakke
DOES A PLANT-BASED DIET CHANGE SUSCEPTIBILITY OF ATLANTIC SALMON TO INFECTIOUS DISEASES?
- 12:10 Edison Serrano**, T. Storebakken, A. Borquez, M. Penn, T. Landsverk, H. P. Dantagnan, J. Ø. Hansen, L. T. Mydland
DIETARY INTAKE OF LUPIN QUINOLIZIDINE ALKALOIDS: EFFECT ON GROWTH, FEED UTILIZATION AND HISTOLOGY IN RAINBOW TROUT
- 12:30 LUNCH**

- 14:30** **Stephanie Nilson**, A. G. Van Kessel, J. E. Hill, M. D. Drew
GROWTH OF RAINBOW TROUT *Oncorhynchus mykiss* FED PEA MEAL AND PEA PROTEIN CONCENTRATE AT INCREASING INCLUSION LEVELS
- 14:50** **Kyla Randall**, M. D. Drew
WHEAT DDGS AND WHEAT DDGS PROTEIN CONCENTRATE AS FEED SOURCES FOR RAINBOW TROUT *Oncorhynchus mykiss*
- 15:10** **Liv Torunn Mydland**, Margareth Øverland, Odd Helge Romarheim, Thor Landsverk, Anders Skrede
MICROBIAL PROTEIN – A SUSTAINABLE AQUAFEED INGREDIENT
- 15:30** **Orhan Tufan Eroldogan**, Oguz Tasbozan, Kenan Engin, Hatice Asuman Yilmaz, Mahmut Ali Gökçe, Sefik Surhan Tabakoglu
EFFECTS OF DIETARY COTTONSEED OIL LEVEL ON GROWTH AND FATTY ACID COMPOSITION OF JUVENILE EUROPEAN SEA BASS *Dicentrarchus labrax*
- 15:50** **Chris André Johnsen**, Christel Solberg, Eldar Åsgard Bendiksen
LONG-TERM EFFECTS OF HIGH-ENERGY FEEDS WITH REDUCED FISHMEAL INCLUSION ON GROWTH PERFORMANCE AND FLESH QUALITY IN FARMED ATLANTIC SALMON *Salmo salar* L.
- 16:10** **Maike Timm-Heinrich**, Charlotte Jacobsen, Sylvie Eymard, Jørgen Holm
INFLUENCE OF FEEDING REGIMES ON COMPOSITION AND OXIDATIVE STABILITY OF RAINBOW TROUT *Oncorhynchus mykiss*
- 16:30** **Joana Silva**, Marit Espe, Luís Conceição, Jorge Dias, Luísa Valente
SENEGALESE SOLE JUVENILES *Solea senegalensis* (KAUP, 1858) GROW EQUALLY WELL ON DIETS DEVOID OF FISH MEAL PROVIDED THE DIETARY AMINO ACIDS ARE BALANCED
- 16:50** **Ståle Refstie**, Pablo Leyton, Jón Árnason, Gustavo Lehnebach, Torbjørn Åsgård
SUSTAINABLE AND COST-EFFICIENT REPLACEMENT OF FISH MEAL BY ANIMAL AND PLANT PROTEIN IN FEEDS FOR ATLANTIC SALMON *Salmo salar*
- 17:10** **Azim Azimi**, Syyed Abbas Hoseini, Mohammad Sudagar, Hasan Aslanparviz
EFFECT OF PARTIAL REPLACEMENT OF FISH MEAL BY AMPHIPODA *Pontogammarus* spp. MEAL ON GROWTH PERFORMANCE, SURVIVAL AND CARCASS COMPOSITION OF RAINBOW TROUT *Oncorhynchus mykiss* JUVENILES

INTEGRATED MULTI TROPHIC AQUACULTURE

Saturday, August 15 10:50 - 17:30 Room R7

Chairs: Gamze Turan, Yngvar Olsen

- 10:50** **Gamze Turan**, Hatice Tekogul, Edis Koru, Semra Cirik
CONTRIBUTION OF SEAWEED CULTURE IN IMTA SYSTEMS TO SHAPING THE SUSTAINABLE AQUACULTURE IN TURKEY
- 11:10** **Bert Wecker**, Adrian Bischoff, Nicole Kube, Oliver von Halem, Uwe Waller
FISH PRODUCTION IN A MARINE ARTIFICIAL RECIRCULATING ECOSYSTEM

- 11:30 Ole Jacob Broch**, Morten Omholt Alver, Ingrid Helene Ellingsen, Kjell Inge Reitan
A MODEL STUDY OF MULTI-TROPHIC AQUACULTURE WITH SALMON, MUSSELS AND MACROALGAE
- 11:50 Lars Gansel**, Thomas A. McClimans, Dag Myrhaug
FLOW PATTERNS IN AND AROUND FISH CAGES: THEIR IMPORTANCE FOR FISH WELFARE, ENVIRONMENTAL POLLUTION AND INTEGRATED MULTI-TROPHIC AQUACULTURE
- 12:10 Kirsten Redmond**, Thorolf Magnesen, Øivind Strand, Pia Kupka Hansen, Sonnich Meier
STABLE ISOTOPES AND FATTY ACIDS AS TRACERS OF THE INCORPORATION OF SALMON FEED IN BLUE MUSSELS *Mytilus edulis*
- 12:30 LUNCH**
- 14:30 Ingrid Lupatsch**, Lily Pauls, Robin Shields
ASSESSING THE POTENTIAL OF CULTURING THE MARINE POLYCHAETE *Nereis virens* TO BIOREMEDIATE SOLID WASTES FROM RECIRCULATING AQUACULTURE SYSTEMS
- 14:50 Éva Kerepeczki**, Dénes Gál, Réka Heged s, Tünde Kosáros, Alexandra Oberdieck, Hauke Hilz, Gerg Gyalog, Ferenc Pekár
VALUABLE BY-PRODUCTS OF AQUACULTURE EFFLUENT TREATMENT IN CONSTRUCTED WETLANDS
- 15:10 Jan Aure**, Cedric Bacher
MODELING DEPLETION PROCESSES IN AQUACULTURE FARMING
- 15:30 Marc C. J. Verdegem**, M. Asaduzzaman, M. A. Wahab
STIMULATING POND PRODUCTION THROUGH ENHANCEMENT AND LINKAGE OF THE PLANKTONIC, PERIPHYTIC AND BENTHIC FOOD WEBS
- 15:50 Henrice Jansen**, Øivind Strand, M. C. J. Verdegem, A. C. Smaal
NUTRIENT DYNAMICS OF MUSSEL ROPE CULTURE *M. edulis*
- 16:10 Ramon Filgueira**, Jon Grant, Øivind Strand
FULLY-COUPLED BIOLOGICAL-PHYSICAL-CHEMICAL MODEL OF CARRYING CAPACITY IN A NORWEGIAN FJORD
- 16:30 Karine Grangeré**, Sébastien Lefebvre, Cédric Bacher, Philippe Cugier, Alain Ménesguen
MODELLING THE ECOPHYSIOLOGICAL RESPONSE OF THE PACIFIC OYSTER *Crassostrea gigas* TO THE SPATIAL VARIABILITY OF ENVIRONMENTAL FACTORS

TECHNOLOGIES FOR SUSTAINABLE AQUACULTURE PRODUCTION (SUSTAINAQUA)

Saturday, August 15 10:50 - 17:30 Room R9
Chairs: Alexandra Oberdieck, Muki Shpigel

- 10:50 Alexandra Oberdieck**, I. Kueddelsmann
SUSTAINAQUA – INTEGRATED APPROACH FOR A SUSTAINABLE AND HEALTHY FRESHWATER AQUACULTURE

- 11:10 Muki Shpigel**
MULTI-TROPHIC SYSTEMS: BENEFITS AND CONSTRAINTS
- 11:50 Zdenek Adamek**, Denes Gal, Maciej Pilarczyk
CARP FARMING AS A TRADITIONAL TYPE OF POND AQUACULTURE IN CENTRAL EUROPE: PROSPECTS AND WEAKNESSES IN THE CZECH REPUBLIC, HUNGARY AND POLAND
- 12:10 Dénes Gál**, Éva Kerepeczki, Tünde Kosáros, Ferenc Pekár
THE POTENTIAL OF WASTE REUSE FROM INTENSIVE AQUACULTURE IN INTEGRATED POND SYSTEMS
- 12:30 LUNCH**
- 14:30 Maciej Pilarczyk**, Joanna Ponicka, Magdalena Stanna
PADDLEFISH *Polyodon spathula* – A NEW SPECIES FOR CARP POND POLY CULTURE
- 14:50 Bjørn-Steinar Sæther**, Oliver Schneider, Jean-Paul Blancheton, Emanuelle Roque d'Orbcastel
IDENTIFYING LIMITING FACTORS RESTRICTING SUSTAINABLE DEVELOPMENT OF AQUACULTURE PRODUCTION IN EASTERN-EUROPEAN COUNTRIES
- 15:10 Oliver Schneider**, B. Fuentes, R. Bosma, E. Eding, J. P. Blancheton, B. S. Saether
SUSTAINABLE PRODUCTION THROUGH THE USE OF RECIRCULATION SYSTEMS (SUSTAINAQ)
- 15:30 Lisbeth Jess Plesner**, A. Jokumsen, P. Bovbjerg Pedersen, A. J. T. Dalsgaard, I. Lund, H. Paulsen, R. S. Rasmussen
DANISH MODEL TROUT FARMS – TECHNOLOGY AND ENVIRONMENTAL IMPACT
- 15:50 E. H. Eding**, M. Verkuilj
REUSE OF RECIRCULATING AQUACULTURE SYSTEM EFFLUENTS – DOES IT IMPROVE SUSTAINABILITY?
- 16:10 F. J. Aartsen**
MARKET VALUE OF SUSTAINABLE AQUACULTURE INDICATORS
- 16:30 Johannes Heeb**, Philippe Wyss
FILTER OPTIMIZATION IN WASTE HEAT BASED TROPICAL POLY CULTURE PRODUCTION IN SWITZERLAND. EXPERIENCES AND RESULTS OF THE SWISS SUSTAINAQUA CASE STUDY
- 16:50 W. Kemmers**
PROJECT ECOFUTURA: A SUSTAINABLE WAY OF GROWING FISH AND VEGETABLES TOGETHER BY REUSING BOTH WATER AND NUTRIENTS
- 17:10 Barbara Hayden**, John Zeldis, Niall Broekhuizen
LAC: A FRAMEWORK FOR MANAGING ENVIRONMENTAL EFFECTS OF AQUACULTURE

FINFISH AQUACULTURE

Saturday, August 15 10:50 - 17:30 Room R2

Chair: Beatrice Chatain

SATURDAY

- 10:50 M. Saeed Heydarnejad**
INFLUENCE OF FOOD DISTRIBUTION UPON FOOD ANTICIPATORY ACTIVITY (FAA) AND GROWTH PERFORMANCE IN RAINBOW TROUT *Oncorhynchus mykiss*
- 11:10 Mehrdad Farhangi**, Ahmad Imani, Razieh Yazdanparast, Majid Bakhtiyari, Zoheir S. Saljooghi
EFFECT OF DIFFERENT FOOD DEPRIVATION PERIODS ON DIGESTIVE ENZYME ACTIVITIES OF RAINBOW TROUT *Oncorhynchus mykiss*
- 11:30 Åshild Krogdahl**, Halvor Holm, Bente Ruyter, Trina Galloway, Gerd Marit Berge, Marie Hillestad
COD *Gadus morhua* ADJUST DIGESTIVE PROCESSES TO VARIATION IN DIET COMPOSITION
- 11:50 Jaime Orellana**, Martin Sander, Bert Wecker
THE USE OF PROTEIN SKIMMERS IN THE OPERATION OF COMMERCIAL LIVE-FISH TRANSPORT IN CLOSED WELL-BOATS: A MODEL APPROACH
- 12:10 Steven Summerfelt**, Mark Sharrer, Scott Tsukuda, Michael Gearheart
PROCESS REQUIREMENTS FOR ACHIEVING FULL-FLOW DISINFECTION USING OZONATION AND UV IRRADIATION
- 12:30 LUNCH**
- 14:30 Anja Gerbeth**, Bernhard Gemende, Andreas von Bresinsky, Günter Bellmann, Ralf-Peter Busse
RESOURCE-CONSERVING AND ENERGY EFFICIENT METHOD FOR OXYGENATION OF WATER IN RECIRCULATING AQUACULTURE SYSTEMS
- 14:50 Catarina De Matos Martins**, Ep H. Eding, Johan A. J. Verreth
DO HEAVY METALS ACCUMULATE IN WATER AND FISH FROM RECIRCULATING AQUACULTURE SYSTEMS?
- 15:10 Benedicte Thienpont**, Albert Caballero, Felipe Fernández
HEAVY METAL CONCENTRATIONS IN WILD AND FARMED GILTHEAD SEA BREAM *Sparus aurata* FROM THE SPANISH COAST
- 15:30 Ali Reza Valipour**, Ali Asghar Khanipour, Shahram Behmanesh, Mohammad Sayyad Bourani
MAHI SEFID (KUTUM) *Rutilus frisii kutum*: INTRODUCING AS A SUITABLE FISH SPECIES FOR AQUACULTURE IN IRAN
- 15:50 Hassan Salehi**
COST FACTORS ANALYSIS FOR FINGERLING PRODUCTION OF STURGEON IN IRAN
- 16:10 Mehran Yasemi**, Abbas Esmaili Molla, Mehdi Nikoo, Mehrnaz Farzingohar
EXPERIMENT ON THE POSSIBILITY OF STURGEON *Acipenser persicus* LARVAE FEEDING WITH TROUT POWDERED DIET

- 16:30 Mojgan Khodadadi**, Maryam Akbarneghad
LARVAL DEVELOPMENT OF *Barbus grypus* (HEECKEL, 1943)
- 16:50 Mitra Bildarnotashi**
A STUDY OF CESTODES INFESTATION IN GRASS CARP OF HAMOON LAKE
Ctenopharyngodon idella IN FEB. 2006

EAS STUDENT GROUP WORKSHOP

Saturday, August 15 14:30 - 17:30 Room R5
Chair: Goncalo Santos

- 14:30 Magdolna Trenovszki**
EAS - STUDENT GROUP: PERSPECTIVES FOR THE FUTURE
- 14:50 Peter Bossier**, Marieke Reuver, Patrick Sorgeloos
AQUA-TNET: INTERNATIONAL EDUCATION OPPORTUNITIES FOR STUDENTS
- 15:10 Gavin Burnell**
PLANNING AND MANAGING YOUR PhD PROGRAMME
- 15:50 Catarina Martins**
STAND OUT OF THE CROWD WITH A GREAT POSTER PRESENTATION
- 16:30 Marc Verdegem**
GET YOUR PAPER PUBLISHED
- 16:50 GENERAL DISCUSSION**
- 17:10 EAS-SG GENERAL ASSEMBLY**

SUNDAY, August 16

PLENARY

Sunday, August 16 09:00 - 09:45 Room R1

- 09:00 Arne Fredheim**
TECHNOLOGICAL CHALLENGES AND OPPORTUNITIES IN MEETING FUTURE
INDUSTRY REQUIREMENTS

PLENARY

Sunday, August 16 09:45 - 10:30 Room R1

- 09:45 Peter Bossier**, K. Dierckens, B. Van Delsen, T. Defoirdt, P. De Schryver, O. Vadstein, I. A. Aasen, F. J. Gatesoupe, J. Verreth, H. Smidt, J. Skjermo, M. J. C. Verdegem, N. Boon, Y. Olsen, F. Van Breusegem, P. Sorgeloos
THE ROLE OF MICROBIOTA IN AQUACULTURE TARGET ORGANISMS AND THEIR ENVIRONMENT

AQUACULTURE GOVERNANCE, POLICY AND (SOCIO-) ECONOMIC RESEARCH

Sunday, August 16 10:50 - 12:30 Room R5

Chairs: Selina Stead, Torgeir Edvardsen

- 10:50 Selina Stead**
SOCIO-ECONOMIC RESEARCH OPPORTUNITIES IN MARINE POLICY AND COASTAL
AQUACULTURE GOVERNANCE
- 11:10 Øystein Hermansen, Bent Dreyer**
CAPTURE-BASED AQUACULTURE ON COD – INTEGRATING TRADITIONAL
HARVESTING AND AQUACULTURE
- 11:30 Diego Mendiola, Ibon Galparsoro, Esteban Puente, Adolfo Uriarte, Lorenzo Motos**
DEVELOPMENT OF THE BASQUE COUNTRY MARINE AQUACULTURE PLAN
- 11:50 Bernard Walrut**
WHEN AN AQUACULTURE FACILITY BECOMES A FISHERY
- 12:10 Jon Shan, R. Mooney, C. Windsor**
OPTICAL DISSOLVED OXYGEN TECHNOLOGY OUTPERFORMS TRADITIONAL
METHODS AND GAINS ASTM ACCEPTANCE

SUNDAY

LIFE CYCLE MANAGEMENT - ENVIRONMENT

Sunday, August 16 10:50 - 17:30 Room R7

Chairs: Kjell Maroni, Yves Harache

- 10:50 Jelena Kolarevic, Grete Bæverfjord, Torbjørn Åsgård, Maike Oehme, Harald Takle, Elisabeth Ytterborg, Barb Grisdale-Helland, Ståle J. Helland, Bendik Fyhn Terjesen**
EFFECTS OF LIGHT INTENSITY AND PERIOD ON FEED INTAKE, GROWTH AND
RESPIRATION IN ATLANTIC SALMON *Salmo salar* IN FRESHWATER
- 11:10 Mairi Cowan, A. Davie, H. Migaud**
EFFECTS OF SHADING IN CONJUNCTION WITH CONSTANT GREEN CATHODE
LIGHTING ON SEXUAL MATURATION OF ATLANTIC COD *Gadus morhua*
- 11:30 Eric Leclercq, John Taylor, Hervé Migaud**
MANAGEMENT OF SEXUAL MATURATION IN ONGROWING ATLANTIC SALMON *Salmo salar*: DEVELOPMENT OF ON FARM TOOLS
- 11:50 Remen Mette, Frode Oppedal, Rolf Erik Olsen**
HABITUATION AND ACCLIMATION OF ATLANTIC SALMON *Salmo salar* L. SUBJECTED
TO FLUCTUATING HYPOXIA
- 12:10 Synnøve Helland, Ingrid Lein, Kirsti Hjelde, Grete Bæverfjord**
WATER SPEED INDUCES LORDOSIS, REDUCED CONDITION FACTOR AND INCREASED
CARDIO SOMATIC INDEX IN ATLANTIC COD *Gadus morhua*
- 12:30 LUNCH**

- 14:30** **Magny Thommasen**, Kjell-Arne Rørvik, Henriette Alne, Bendik Terjesen, Harald Takle, Jose Zambonino, Fabian Grammes, Maike Oehme, Trygve Sigholt, Rolf Berge
DYNAMIC AND INTEGRATED PRODUCTION BIOLOGY OF FARMED SALMON IN SEA
- 14:50** **Rina Chakrabarti**, Y. V. Rao
THE APPLICATION OF PLANT INGREDIENT AS IMMUNOSTIMULATOR IN THE DIET OF *Cyprinus carpio*
- 15:10** **Marc Vandeputte**, Jérôme Bugeon, Mathilde Dupont-Nivet, Hervé Chavanne, Pierrick Haffray, Florence Lefèvre, Laurent Labbé, Alain Vergnet, Béatrice Chatain
PROCESSING QUALITY OF SELECTED FISH: QUASI-ABSENCE OF CORRELATED RESPONSES TO SELECTION FOR GROWTH IN THE BROWN TROUT *Salmo trutta* AND IN THE SEA BASS *Dicentrarchus labrax*
- 15:30** **Nelly Wabete**, Liet Chim
PHYSIOLOGICAL PROBLEMS IN PENEID PRAWNS CULTIVATED ON THE LOW SIDE OF THEIR THERMOPREFERENDUM: CASE STUDY WITH *Litopenaeus stylirostris* REARED IN NEW CALEDONIA
- 15:50** **Hung Quoc Pham**, Elin Kjorsvik, Augustine Arukwe, Anh Tuong Nguyen, Mao Dinh Nguyen
EFFECT OF SALINITY ON STEROID HORMONE LEVELS, FINAL OOCYTE MATURATION AND OVULATION IN SANDBASS *Psammoperca waigiensis*
- 16:10** **Seyed Hamed Mosavi Sabet**, Zeynab Moradkhani
DETERMINATION OF THE TEMPERATURE ON INCUBATIONS PERIOD IN SEVERUM *Cichlasoma severum*

THE CHALLENGES OF NEW FEED RESOURCES 2

Sunday, August 16 10:50 - 17:30 Room R1

Chairs: Sachi Kaushik, Trygve Sigholt

Session Sponsor: BIOMAR

- 10:50** **Turid Synnøve Aas**, Bendik Fyhn Terjesen, Trygve Sigholt, Marie Hillestad, Jørgen Holm, Ståle Refstie, Grete Baeverfjord, Maike Oehme, Kjell-Arne Rørvik, Mette Sørensen, Torbjørn Åsgård
PHYSICAL PROPERTIES AFFECT THE BIOLOGICAL VALUE OF FISH FEEDS, A CHALLENGE WHEN TESTING NEW FEED INGREDIENTS
- 11:10** **Maike Oehme**, Turid Synnøve Aas, Mette Sørensen, Gaojie He, Torbjørn Åsgård
FEED INGREDIENTS, TECHNICAL FEED QUALITY AND PELLET BREAKAGE IN PNEUMATIC CONVEYING SYSTEMS
- 11:30** **Faezeh Mohammadi**, Hossein Khara, Mahmoud Mohseni
EFFECT OF GAMMARUS MEAL ON SOME HEMATOLOGICAL AND GROWTH INDICES IN THE GREAT STURGEON *Huso huso*
- 11:50** **Stephan Ende**, S. Krockel, O. Schneider, J. W. Schrama, Johan A. J. Verreth
HIGHER GROWTH IN *Solea solea* FED NATURAL DIETS COMPARED TO COMMERCIAL FEED: A RESULT OF INTAKE AND EFFICIENCIES!

- 12:10 Peter Olive**, Thanya Duangchinda, Elizabeth Ashforth
NET GAIN OF LONG CHAIN PUFA IN A POLYCHAETE BIOTURBATED MESOCOSM:
A CHALLENGE TO AN ACCEPTED PARADIGM
- 12:30 LUNCH**
- 14:30 Ahmad Imani**, Mehrdad Farhangi, Razieh Yazdanparast, Majid Bakhtiyari,
Zoheir S. Saljooghi, M. Amiri Bagher
EFFECT OF DIFFERENT STARVATION AND REFEEDING REGIMES ON THE
COMPENSATORY GROWTH AND FEED UTILIZATION INDICES OF RAINBOW TROUT
Oncorhynchus mykiss
- 14:50 Kenan Engin**, O. T. Eroidogan, H. A. Yilmaz, I. Özsahinoglu, O. Tasbozan
THE EFFECTS OF FISH OIL REPLACEMENT BY CANOLA AND/OR COTTON SEED OIL
ON AMMONIA AND UREA EXCRETION RATES IN JUVENILE EUROPEAN SEA BASS
Dicentrarchus labrax
- 15:10 Kathryn Schuller**, Melissa Gregory, Robert Gibson
CLONING AND CHARACTERIZATION OF A SOUTHERN BLUEFIN TUNA *Thunnus*
maccoyii FATTY ACYL ELONGASE cDNA
- 15:30 Zabih Ollah Pajand**, K. Haddadimoghadam, F. Chubian, R. Rufchaie
STUDY OF FEEDING INDEX OF THE PERSIAN STURGEON *Acipenser persicus*
FINGERLINGS IN THE EARTH PONDS
- 15:50 Kylie Phillips**, Phil Bremer, Nazimah Hamid, Patrick Silcock, Conor Delahunty,
Mike Barker
EFFECT OF DIET, SEASON AND GENDER ON THE SENSORY QUALITY OF SEA URCHIN
Evechinus chloroticus GONADS
- 16:10 Koenraad Vanhoutte**, L. Roef, M. Stael, T. Atask
THE EFFECT OF THE USE OF DIFFERENT GREEN WATER METHODOLOGIES AND THE
USE OF ROTIFERS FED DRIED ALGAE ON EARLY GROWTH AND DEFORMITIES OF
ATLANTIC COD LARVAE *Gadus morhua*
- 16:30 Kerati Issarapayup**, Sorawit Powtongsook, Prasert Pavasant
CULTIVATION OF VEGETATIVE CELLS OF MICROALGA *Haematococcus pluvialis* IN
FLAT PANEL AIRLIFT PHOTOBIOREACTORS
- 16:50 Mansoreh Ghaeni**, A. Matinfar, Mehdi Soltani, M. Rabbani
THE USE OF SPIRULINA IN SHRIMP CULTURE
- 17:10 Johnny Ogunji**, D. Sutter, B. Rennert, W. Kloas, C. Schulz
GROWTH PERFORMANCE, BODY COMPOSITION AND HAEMATOLOGICAL
CHARACTERISTICS OF CARP *Cyprinus carpio* FED DIETS CONTAINING HOUSEFLY
MAGGOT MEAL

OFFSHORE AQUACULTURE ENGINEERING

Sunday, August 16 10:50 - 17:30 Room R8

Chairs: Tim Dempster, Michael Chambers

SUNDAY

- 10:50** **Østen Jensen**, Pascal Klebert, Erlend Kristiansen
IMPROVING THE RELIABILITY OF THE CAGE SINKING-FLOATING PROCESS OF SUBMERSIBLE CAGES
- 11:10** **Simone Mirto**, Giulia Maricchiolo, Gabriella Caruso, Lucrezia Genovese, Rosa Bonaventura, Valeria Matranga
WELFARE STATUS OF CAGE FARMED SEA BASS *Dicentrarchus labrax*: A COMPARISON BETWEEN SUBMERSIBLE AND SURFACE CAGES
- 11:30** **Win Watson**, Chris Rillahan, Michael Chambers, Hunt Howell
THE USE OF TELEMETRY AND GUT CONTENTS ANALYSES TO INVESTIGATE THE FEEDING BEHAVIOR OF COD *Gadus morhua* IN AN OFFSHORE AQUACULTURE NET PEN
- 11:50** **Øyvind Korsøen**, T. Dempster, J. E. Fosseidengen, A. Fernø, T. S. Kristiansen
SAFE DECOMPRESSION PROCEDURES DURING LIFTING OF SUBMERGED CAGES WITH ATLANTIC COD *Gadus morhua*
- 12:10** **Michael Chambers**, Hunt Howell, Win Watson, Dan Ward
A PRELIMINARY STUDY TO DETERMINE THE FEASIBILITY OF RAISING STEELHEAD TROUT *Onchorhynchus mykiss* IN SUBMERGED NET PENS
- 12:30** **LUNCH**
- 14:30** **Tim Dempster**, Øyvind Korsøen, Frode Oppedal, Jon-Erik Juell, Arne Fredheim, Pål Lader
CAN SALMON TOLERATE SUBMERGENCE IN COMMERCIAL-SCALE SEA-CAGES?
- 14:50** **Frode Oppedal**, Øyvind Korsøen, Tim Dempster, Per Gunnar Fjellidal, Tore Kristiansen
REDUCED PERFORMANCE OF LONG-TERM, DEEP AND DARK SUBMERGED ATLANTIC SALMON *Salmo salar* L.
- 15:10** **Asbjørn Bergheim**, M. Gausen, R. Holen, K. Staven, A. Nilsen
DISSOLVED OXYGEN – A KEY PARAMETER AT LICE TREATMENT IN SALMON CAGES
- 15:30** **Jana Guenther**, C. Carl, L. M. Sunde
THE GROWTH OF THE HYDROID *Ectopleura larynx* ON NETS IN RELATION TO FISH FARMING PRACTICES IN NORWAY
- 15:50** **Lars Gansel**, Thomas A. McClimans, Dag Myrhaug
FLOW PATTERNS IN AND AROUND FISH CAGES: THE EFFECTS OF BIOFOULING ON THE FLOW IN AND AROUND NET PENS AND THE RESULTING FORCES
- 16:10** **Øystein Patursson**, M. Robinson Swift, Igor Tsukrov, Knud Simonsen, Kenneth Baldwin, David W. Fredriksson, Barbaros Celikkol
FLOW THROUGH AND AROUND FISH FARMING NETS

- 16:30** **Boaz Zion**, Ilan Karplus, Assaf Barki
THE BEHAVIORAL MEMORY OF FISH IN RESPONSE TO ACOUSTIC TRAINING FOR SEA RANCHING
- 16:50** **Martin Føre**, Jo Arve Alfredsen
SPECIFICATION OF A SOFTWARE TOOL FOR INTERPRETATION OF FISH TELEMETRY DATA FROM FISH FARMS

MICROBIOLOGY IN AQUACULTURE SYSTEMS

Sunday, August 16 10:50 - 17:30 Room R9

Chairs: Jorunn Skjermo, François-Joël Gatesoupe

- 10:50** **Alaa El-Dahhar**
THE USE OF HYDROGEN PEROXIDE (HUWA. SAN®) TR25 AS ALTERNATIVE FOR THE DISINFECTION OF TILAPIA BROODSTOCK AND EGGS DURING THE HATCHING PERIODS
- 11:10** **R.A.Y.S. Asanka Gunasekara**, Anamaria Rekecki, Pieter Cornillie, Peter Bossier, Wim Van den Broeck
COMPARATIVE MORPHOLOGY OF THE INTESTINAL TRACT IN EARLY AXENIC AND MONOGNOTOBIOTIC *Artemia franciscana* NAUPLII USING HISTOLOGY AND THREE-DIMENSIONAL RECONSTRUCTIONS
- 11:30** **Torunn Forberg**, Olav Vadstein, Augustine Arukwe
HOST RESPONSES TO BACTERIA IN GNOTOBIOTIC ATLANTIC COD *Gadus morhua* LARVAE
- 11:50** **Anamaria Rekecki**, R. A.Y.S. A. Gunasekara, Kristof Dierckens, Herman Favoreel, Nico Boon, Peter Bossier, Wim Van den Broeck
ANALYSIS OF GFP-LABELLED BACTERIA IN THE GASTROINTESTINAL TRACT OF GERM-FREE SEA BASS LARVAE BY CONFOCAL MICROSCOPY
- 12:10** **Khalil Azizpour**, Amir Tokmechi
BIOCHEMICAL CHARACTERIZATION OF LACTIC ACID BACTERIA ISOLATED FROM RAINBOW TROUT OF WEST AZARBAIJAN, IRAN
- 12:30** **LUNCH**
- 14:30** **Atul Desai**, Graeme Mansfield, Stephanie Collins, Murray Drew, Andrew G. Van Kessel, Janet Hill
EVALUATION OF THE EFFECTS OF DIET COMPOSITION ON INTESTINAL MICROBIOTA OF RAINBOW TROUT *Oncorhynchus mykiss* USING CPN60-BASED METHODS
- 14:50** **Peter De Schryver**, A. Kumar Sinha, P. Singh Kunwar, K. Baruah, N. Boon, W. Verstraete, G. De Boeck, P. Bossier
THE BACTERIAL STORAGE COMPOUND POLY- β -HYDROXYBUTYRATE (PHB) INCREASES GROWTH PERFORMANCE AND INTESTINAL MICROBIAL DIVERSITY IN EUROPEAN SEA BASS JUVENILES *Dicentrarchus labrax*

- 15:10** **Eduardo Martínez-Manzanares**, P. Rosas-Ledesma, J. M. León-Rubio, S. Arijó, M. C. Balebona
EVALUATION OF THE SURVIVAL OF A PROBIOTIC BACTERIA IN THE GASTROINTESTINAL TRACT OF *Solea senegalensis* USING A RED FLUORESCENT PROTEIN LABELLED STRAIN
- 15:30** **Natrah Fatin Mohd Ikhsan**, Defoirdt Tom, Wiyoto Wiyoto, Patrick Sorgeloos, Peter Bossier
EFFECT OF FRESHWATER MICROALGAE ON QUORUM SENSING DISRUPTION ACTIVITIES
- 15:50** **Silvana Teresa Tapia-Paniagua**, I. García de la Banda, C. Lobo, M. Chabrilón, R. Rico, J. M. León Rubio, M. A. Moriñigo
EFFECT OF DIETARY ADMINISTRATION OF PROBIOTICS ON INTESTINAL MICROBIOTA OF SENEGALESE SOLE *Solea senegalensis*
- 16:10** **Carlo Lazado**, Christopher Marlowe Caipang, Monica Brinchmann, Kiron Viswanath
ATLANTIC COD GUT-DERIVED BACTERIA – THEIR IMMUNOSTIMULATORY FUNCTIONS AND PHYTASE ACTIVITY
- 16:30** **Ståle Refstie**, Grete Baeverfjord, Rudi Ripman Seim, Odd Elvebø
YEAST CELL WALL β -GLUCAN AND MANNANOSE AFFECT GUT HEALTH, PERFORMANCE, AND SEA LICE RESISTANCE IN ATLANTIC SALMON *Salmo salar* FED SUNFLOWER AND SOYBEAN MEAL
- 16:50** **Hojat Jafaryan**, Ali Pordelan, Sh. Papii, V. Chamanara, S. Khojamlii
THE USE OF BAKER'S YEAST *Saccharomyces cerevisiae* AND PROBIOTIC BACILLUS ON THE GROWTH PERFORMANCE IN RAINBOW TROUT *Oncorhynchus mykiss* LARVAE
- 17:10** **Hojat Jafaryan**, A. Golpor, M. Adibi
THE EFFECT OF BAKER'S YEAST ON BODY COMPOSITION OF PERSIAN STURGEON *Acipenser persicus* LARVAE BY USING *Daphnia* sp.

SHELLFISH AQUACULTURE

Sunday, August 16 10:50 - 17:30 Room R2

Chairs: Kjell Reitan, Cedric Bacher

- 10:50** **Anne A. Hageberg**, Arne Ervik, Inge Døskeland
AKVAVIS – A NEW GIS INTERFACE TOOL IN AQUACULTURE PLANNING
- 11:10** **Ø. Strand**, L. Asplin, J. Aure, T. Strohmeier, C. Bacher, P. J. Cranford, J. Grant, A. Smaal
RESEARCH APPROACHES TO MEET NEEDS OF CARRYING CAPACITY ASSESSMENT AND MANAGEMENT TOOLS FOR SHELLFISH AQUACULTURE IN NORWAY
- 11:30** **Tineke Troost**, Jeroen Wijsman, Luca van Duren
A MODEL TOOL TO ASSESS ECOSYSTEM-ENGINEERING EFFECTS OF SHELLFISH

- 11:50** **Marcel Fréchette**, Jean-François Dumais
SELF-THINNING DYNAMICS IN EXPERIMENTAL SCALLOP POPULATIONS
- 12:10** **Aline Gangnery**, Vincent Justome, Frank Maheux, Soazig Manach, Sophie Parrad, Olivier Pierre-Duplessix, Emilie Rabiller
EVIDENCE OF SPATIAL STRUCTURES OF HYDROBIOLOGICAL PARAMETERS IN THE BAY DES VEYS (NORMANDY, FRANCE) IN RELATION WITH HYDRODYNAMISM AND PRESENCE OF CULTIVATED OYSTERS
- 12:30** **LUNCH**
- 14:30** **D. Brigolin**, T. Lovato, S. Ciavatta, G. Marchi, A. Rubino, R. Pastres
AN INTEGRATED SPATIALLY EXPLICIT MODEL FOR THE ASSESSMENT OF THE IMPACT OF OFF-SHORE MUSSEL FARMING ON N AND P BIOGEOCHEMICAL CYCLES
- 14:50** **Tove Beate Leren**, Bjarne Gjerde, Yoav Barr, Julie Maguire
DEVELOPING A SELECTIVE BREEDING PROGRAMME FOR THE GREAT SCALLOP *Pecten maximus*
- 15:10** **S. Galinou-Mitsoudi**, Y. Savvidis, A. Moriki., D. Petridis, X. Dimitriadis
MUSSEL PRODUCTION IN RELATION TO ECOHYDRAULIC CONDITIONS IN THE CULTURE AREA OF NW THESSALONIKI GULF (NW AEGEAN, GREECE)
- 15:30** **John C. Bonardelli**, Arne Duinker
CHALLENGES AND QUALITY FACTORS IMPACTING ON NORWAY'S EXPORT POTENTIAL
- 15:50** **Marianne Alunno-Bruscia**, Cédric Bacher, Øivind Strand, Rune Rosland, Peter Cranford, Jon Grant, Aad C. Smaal
MULTI-SITE COMPARISON OF THE GROWTH OF CULTURED BLUE MUSSELS *Mytilus edulis* BY USING DYNAMIC ENERGY BUDGET THEORY
- 16:10** **Ruangrai Tokrisna**
PRODUCTION AND MARKETING ADAPTATION FOR SURVIVAL: THE CASE OF THAI SHRIMP CULTURE
- 16:30** **Arya Vazirzadeh**, Ashkan Ezhdehakoshpour, Abdolmajid Hajimoradloo, Kamran Rezaei, Ahmad Imani
RISE AND FALL OF MARINE SHRIMP AQUACULTURE IN IRAN
- 16:50** **Rune Rosland**, Øivind Strand, Cedric Bacher, Jan Aure, Tore Strohmeier
APPLYING DEB MODEL TO SIMULATE MUSSEL GROWTH VARIABILITY IN LONG-LINE FARMS AS A FUNCTION OF STOCKING DENSITY AND FARM DESIGN

EU FORUM

Sunday, August 16 14:30 - 16:50 Room R5

Chairs: Jacques Fuchs, Stamatis Varsamos

SUNDAY

- 14:30 S. Varsamos**, DG RTD E4 “Agriculture, Forest, Fisheries & Aquaculture”
OPPORTUNITIES FOR RESEARCH FOR AQUACULTURE AND BIOTECHNOLOGY IN FP7
- 15:10 G. Petralia**, DG RTD T4 “SME’s”
OPPORTUNITIES FOR RESEARCH FOR SME’S IN FP6 AND FP7
- 15:50 S. Cabot**, DG SANCO “Feeds”
OVERVIEW OF AQUACULTURE RELATED POLICIES ELABORATED BY DG SANCO
- 16:10 JC Cueff**, Head of Unit, DG MARE A2 “Common Fisheries Policy and Aquaculture”
THE EU STRATEGY FOR THE SUSTAINABLE DEVELOPMENT OF THE EUROPEAN
AQUACULTURE

SCREENING OF MALFORMATIONS IN FISH LARVAE AND JUVENILES. CAN DATA MINING HELP US IMPROVE PRODUCTION? (FINEFISH)

Sunday, August 16 16:50 - 17:30 Room R5

Chair: Grete Bæverfjord, Synnøve Helland

- 16:50 Grete Bæverfjord**
PRESENTATION OF SCREENING TECHNIQUES AND THEIR INTERPRETATION
- 17:10 QUESTION & ANSWER SESSION**

MONDAY, August 17

PLENARY

Monday, August 17 09:00 - 09:45 Room R7

- 09:00** **O. M. Rødseth**, A. Storset
NEW MOLECULAR BIOLOGY APPLICATIONS AND TECHNOLOGICAL IMPROVEMENTS
IN FISH BREEDING

PLENARY

Monday, August 17 09:45 - 10:30 Room R7

- 09:45** **Courtney Hough**
THE STRATEGIC RESEARCH AGENDA OF THE EUROPEAN AQUACULTURE
TECHNOLOGY AND INNOVATION PLATFORM

LIFE CYCLE MANAGEMENT - ANIMAL

Monday, August 17 10:50 - 16:30 Room R7

Chairs: Elin Kjorsvik, Bela Urbanyi

- 10:50** **Preeta Kochanian**, Jasem G. Marammazi, Mohammad Zakeri, Ahmad Savari,
Vahid Yavari, Mahsa Haghi
INFLUENCE OF VARIED LEVELS OF DIETARY PROTEIN AND ENERGY ON GROWTH,
SPAWNING PERFORMANCE, EGG AND LARVAL BIOCHEMICAL COMPOSITION AND
QUALITY OF *Acanthopagrus latus*
- 11:10** **Preeta Kochanian**, Sheida Azizi, Rahim Peyghan, Hassan Morovvati, Rahim Abdi,
Alireza Khansari, Abdolali Movahedinia
CHANGES IN CHLORIDE CELL MORPHOMETRICS OF COMMON CARP *Cyprinus carpio*
IN RESPONSE TO SALINITY
- 11:30** **Stefan Meyer**, Sune R. Sørensen, Myron A. Peck, Josianne G. Støttrup
VIABILITY OF BALTIC COD *Gadus morhua* EGGS AND LARVAE AFTER MARKING WITH
ALIZARIN COMPLEXONE
- 11:50** **Shin-Kwon Kim**, K. Nomura, H. Tanaka, M. Yokoyama, H. Matsunari, T. Yamamoto,
H. Furuita, K. Ishihara, M. Kaneniwa
WHAT KIND OF NUTRIENTS DOES THE LEPTOCEPHALUS DIGEST AND ABSORB FROM
DIET?
- 12:10** **Simone Modugno**, Fernando Gelli, Karin Brigit Holthaus, Federico Brunelli,
Pier Luigi Trentini, Carla Rita Ferrari, Attilio Rinaldi, Alberto Fonzo, Daniele De Luca,
Aldo Tasselli
EXAMPLE OF APPLICATION OF THE SILVERING INDEX (VAN DEN THILLART) IN
SOME NORTH-EAST ITALY LAGOONS AS AN ACTIVE TOOL OF CONSERVATION AND
PRESERVATION OF ITALIAN EEL STOCK *Anguilla anguilla* (LINNAEUS, 1758)

MONDAY

12:30 LUNCH

14:30 Joana Dias, Ian Davies, Mike Snow
REAL-TIME PCR AS A TOOL FOR THE MANAGEMENT OF MUSSEL AQUACULTURE SEED AREAS

14:50 Nikolina Kovatcheva, Roman Vasilyev
RUSSIAN-NORWEGIAN PERSPECTIVES OF DEVELOPMENT RED KING CRAB
Paralithodes camtchaticus AQUACULTURE IN THE BARENTS SEA

15:10 Roman Vasilyev, Nikolina Kovatcheva
MONITORING OF THE RED KING CRAB *Paralithodes camtschaticus* PHYSIOLOGICAL STATE IN AQUACULTURE CONDITIONS

15:30 GholamHossein Mohammadi, Mojgan Khodadadi, Ehsan Nasr, Hajat Safikhani
FECUNDITY REPRODUCTIVE CYCLE OF A LOCAL POPULATION OF *Gammarus pulex* IN SEPIDAN (FARS PROVINCE, IRAN)

15:50 Mohammad Sayyad Bourani, Behrooz Abtahi, Mahmoud Bahmani, Ludmila Krayushkina, Mohaddeseh Ahmadnezhad
THE EFFECT OF SIZE ON OSMOREGULATION ABILITY, CHLORIDE CELLS AND Na⁺, K⁺-ATPase ACTIVITY IN *Salmo trutta caspius* JUVENILES

MULTIFACTORIAL DISEASE

Monday, August 17 10:50 - 16:30 Room R5

Chairs: Grete Bæverfjord, Patrick Smith

Session Sponsor: Intervet Schering - Plough Animal Health

10:50 Ingrid Olesen, Aamer Shehzad, Jørgen Ødegård, Rune Stigum Olsen, Trygve Poppe
PREVALENCE AND GENETIC VARIATION OF EPICARDITIS AND CARDIAC ABNORMALITIES IN FARMED ATLANTIC SALMON

11:10 Kirsti Hjelde, Ingrid Lein, Synnøve Helland, Øyvind Andersen, Grete Bæverfjord
DEVELOPMENT OF SPINAL DEFORMITIES IN FARMED ATLANTIC COD *Gadus morhua*

11:30 Elisabeth Ytteborg, Grete Bæverfjord, Kirsti Hjelde, Jacob Torgersern, Harald Takle
TEMPERATURE INDUCED VERTEBRAL DEFORMITIES: MECHANISMS INVOLVES EXTRA CELLULAR MATRIX AND MINERALIZATION DEFICIENCY

11:50 Jana Ryckaert, Frank Pasmans, Els Tobback, Luc Duchateau, Freddy Haesebrouck, Peter Bossier
HEAT SHOCK PROTEINS PROTECT PLATYFISH *Xiphophorus maculatus* FROM *Yersinia ruckeri* INDUCED MORTALITY

12:10 Samaneh Mousavi, Hosain Khara, Aliasghar Saeedi, Maryam Ghiyasi
SEASONAL STUDY OF INCIDENCE OF STREPTOCOCCOSIS AND STAPHYLOCOCCOSIS IN ELECTED RAINBOW TROUT *Oncorhynchus mykiss* FARMS IN MAZANDARAN PROVINCE IN IRAN

- 12:30 LUNCH**
- 14:30 Peter Bossier**, Le Hong Phuoc, Mathias Corteel, Nguyen Cong Thanh, Hans Nauwynck, Maurice Pensaert, Victoria Alday-Sanz, Wim Van Den Broeck, Patrick Sorgeloos
EFFECT OF DOSE AND CHALLENGE ROUTES OF *VIBRIO* spp. ON CO-INFECTION WITH WHITE SPOT SYNDROME VIRUS IN *Penaeus vannamei*
- 14:50 Zohreh Mashak**, Afshin Akhoondzadeh Basti, Bizhan Moradi, Behrooz Moradi
THE SURVEY OF TWO MAJOR SEA-FOODBORNE PATHOGENS IN SALTED COLD SMOKED FISH IN MAZANDARAN PROVINCE (IRAN)
- 15:10 Majid Mohammadnejad Shamoushaki**, Roia Assareh, Masoud Samadian, Zabih Pajand
DETERMINATING THE LETHAL CONCENTRATION (LC50/96h) OF HERBICIDE "ROUNDUP" ON *Rutilus frisi kutum*, *Rutilus rutilus caspicus* AND *Cyprinus carpio* FINGERLINGS (1-3g)
- 15:30 Amita Saxena**, Chandra Dutt Sharma
HAEMATOLOGICAL VARIATIONS IN FEW TELEOSTS
- 15:50 Majid Mohammadnejad Shamoushaki**, Erfan Shahkar, Emadoldin Shamoushaki
DETERMINATING THE LETHAL CONCENTRATION (LC50/96h) OF CHLOROPYRIFOS AND DIAZINON ON *Rutilus rutilus caspicus* FINGERLINGS (1-3g)
- 16:10 Giovanna Marino**, Patrizia Di Marco, Alessandra Priori, Tommaso Petochi, Silvia Livi, Maria Grazia Finoia, Alessandro Longobardi, Valeria Donadelli
EFFECTS OF COLD EXPOSURE AND FASTING ON STRESS AND METABOLIC RESPONSES IN WILD SEA BREAM *Sparus aurata* FROM TWO DIFFERENT GEOGRAPHICAL AREAS

EAS THEMATIC GROUP EUROSHELL – SRA FOR THE EUROPEAN SHELLFISH SECTOR

Monday, August 17 10:50 - 16:30 Room R9
Chairs: Aad Smaal, René Robert

- 10:50 Gavin Burnell**
AN ECOSYSTEM APPROACH TO SHELLFISH AQUACULTURE AND ITS INTEGRATION WITHIN SHELLFISHERIES MANAGEMENT
- 11:10 R. Pastres**, J. G. Ferreira
THE ROLE OF MODELS FOR THE SUSTAINABLE MANAGEMENT OF SHELLFISH FARMING
- 11:30 R. Robert**
REVIEW ON EUROPEAN HATCHERY-NURSERY DEVELOPMENTS
- 11:50 Peter Cranford**, William Li, Øivind Strand, Tore Strohmeier
FOOD DEPLETION BY MUSSEL AQUACULTURE: SPATIAL SCALE AND INDICATORS OF PRODUCTION AND ECOLOGICAL CARRYING CAPACITY

- 12:10 J. G. Ferreira**, R. Pastres, A. Martinho, J. J. Melo, A. Oliveira, C. Saurel, C. V. Soares, C. Vale, P. Sarmiento-Coelho, M. H. Alves, M. Lacerda, D. Paulo, F. Reis
ENVIRONMENTAL SUSTAINABILITY OF OFFSHORE SHELLFISH AQUACULTURE – ASSESSMENT USING INTEGRATED MODELLING
- 12:30 LUNCH**
- 14:30 R. González-Araya**, C. Quéré, C. Mingant, I. Quéau, L. Lebrun, R. Robert
ECOPHYSIOLOGICAL AND BIOCHEMICAL RESPONSES OF *Ostrea edulis* BROODSTOCK FED FOUR DIFFERENT SINGLE DIETS DURING CONDITIONING
- 14:50 J. Marchetti**, Erell Olivo, Gaël Bougaran, Catherine Rouxel, Loïc Le Dean, René Robert, Jean-Paul Cadoret
OPTIMIZING CULTURE CONDITIONS FOR CONTINUOUS PRODUCTION OF *Isochrysis affinis galbana* IN A NEW COMMERCIAL HATCHERY PHOTOBIOREACTOR
- 15:10 G. Christophersen**, S. Andersen, S. R. Erga, T. Magnesen
THE CHALLENGE OF REDUCING THE PRODUCTION TIME OF JUVENILE SCALLOPS *Pecten maximus* INTENDED FOR SEA RANCHING
- 15:30 Pauline Kamermans**, Arnon Uppabullung, Peter Herman, Aad Smaal
NEW TECHNOLOGY TO PROVIDE SEED FOR BOTTOM CULTURE OF BLUE MUSSELS *Mytilus edulis* IN THE NETHERLANDS
- 15:50 Aad Smaal**, Rene Robert
INTRODUCTION AND DISCUSSION ON THE EUROHELL STRATEGIC RESEARCH AGENDA

RECIRCULATING AQUACULTURE SYSTEMS (RAS)

Monday, August 17 10:50 - 16:30 Room R8

Chairs: Laszlo Varadi, Oliver Schneider

- 10:50 Catarina De Matos Martins**, Ep H. Eding, Johan A. J. Verreth
GROWTH RETARDATION IN RECIRCULATING AQUACULTURE SYSTEMS: MYTH OR REALITY?
- 11:10 Steven Summerfelt**, Christopher Good, Carla Welsh, John Davidson
WATER QUALITY AND TREATMENT PROCESS EFFICIENCIES IN REPLICATED RECIRCULATING SYSTEMS OPERATED WITH AND WITHOUT OZONATION
- 11:30 Christopher Good**, John Davidson, Carla Welsh, Kevin Snekvik, Steven Summerfelt
THE EFFECTS OF OZONATION ON WATER QUALITY AND THE HEALTH AND PERFORMANCE OF RAINBOW TROUT *Oncorhynchus mykiss* IN LOW-EXCHANGE WATER RECIRCULATING AQUACULTURE SYSTEMS
- 11:50 Christopher Good**, John Davidson, Carla Welsh, Kevin Snekvik, Steven Summerfelt
HEALTH AND PERFORMANCE OF RAINBOW TROUT *Oncorhynchus mykiss* IN LOW-EXCHANGE WATER RECIRCULATING AQUACULTURE SYSTEMS WITH HIGH OR LOW DISSOLVED CARBON DIOXIDE

- 12:10** **Paul-Daniel Sindilariu**, Alexander Brinker
PARTICLE MANAGEMENT IN RECIRCULATING SMOLT FARMS, EQUIPPED WITH IMPROVED MOVING BED TECHNOLOGY
- 12:30** **LUNCH**
- 14:30** **Jaime Orellana**, Martin Sander, Uwe Waller, Bert Wecker
THE EFFECT OF OZONE ON THE AMOUNT, PARTICLE SIZE DISTRIBUTION, AND NUTRIENT COMPOSITION OF TOTAL SUSPENDED SOLIDS IN A MODERN MARINE RECIRCULATION SYSTEM
- 14:50** **Bernhard Gemende**, Anja Gerbeth, Andreas von Bresinsky, Günther Bellmann, Georg Stähler, Ralf-Peter Busse
APPLICATION OF MEMBRANE TECHNOLOGY IN RECIRCULATING AQUACULTURE SYSTEM
- 15:10** **Stefan Reiser**, Sven Wuertz, Jan Schroeder, Werner Kloas, Reinhold Hanel
EFFECTS OF OZONE ON WELFARE INDICATORS OF JUVENILE TURBOT *Psetta maxima* IN RECIRCULATION AQUACULTURE SYSTEMS
- 15:30** **Edward Schram**, Benoit Vincon, Baptiste Verniau, Oliver Schneider
HOMO-TYPICALLY CONDITIONED REARING WATER AFFECTS WEIGHT VARIATION AND POSSIBLY GROWTH OF JUVENILE TURBOT *Scophthalmus maximus*
- 15:50** **Zoheir S. Saljooghi**, Gholamreza Rafiei, Akbar Malekpur, Mehrdad Farhangi, Ahamd Imani, Majid Bakhtiyari
A NEW METHOD TO REMOVE ANIONS FROM RECIRCULATING AQUACULTURE SYSTEM
- 16:10** **Shalom Fox**, Amit Gross, Ori Lahav, Yuval Alfiya, Noam Mozes
DEVELOPMENT AND OPTIMIZATION OF A FIELD SCALE DENITRIFICATION UNIT AS PART OF A SUSTAINABLE MARINE LAND BASED RECIRCULATED AQUACULTURE SYSTEM

MONDAY

POSTERS

Located Near Room R7

FROM WASTE TO TASTE POSTERS

Board

- 1 **Hamed Azarbad**
ECOLOGICAL FUNCTION OF MARINE BIVALVES IN BIOLOGICAL WASTE WATER PURIFICATION PROCESSES
- 2 **Tünde Kosáros**, D. Gál, G. Lakatos, F. Pekár
PERIPHYTON UTILIZATION IN A COMBINED INTENSIVE-EXTENSIVE FISH FARMING SYSTEM
- 3 **Mahmoudreza Ovissipour**, Abdol Mohammad Abedian, Ali Motamedzadegan, Barbara Rasco, Asbjorn Gildberg, Ali Taheri, Elahe Mohagheghi
FISH PROTEIN HYDROLYSATE PRODUCTION FROM PERSIAN STURGEON *Acipenser persicus* VISCERA USING ALCALASE
- 4 **Fernando Afonso**, Luis Batista, Susete Martins-Dias
PHYTOREMEDIATION FOR AQUACULTURE SUSTAINABILITY

POSTERS

BENEFITING FROM ACCELERATING GENOMIC RESEARCH POSTERS

Board

- 6 **Sibel Colak**, M. Baki Yokes
16S rRNA SEQUENCE ANALYSIS OF CRAYFISH *Astacus leptodactylus* (ESCHOLTZ, 1823) POPULATIONS FROM TURKEY
- 7 **Christopher Marlowe Caipang**, Monica Brinchmann, Kiron Viswanath
ESTABLISHING A LINK BETWEEN VACCINATION AND IMMUNE RESPONSE IN ATLANTIC COD *Gadus morhua*: THE CASE OF *Vibrio anguillarum*
- 8 **Teresa Ostaszewska**, Piotr Grochowski, Maciej Kamaszewski, Tiziano Verri, Konrad Dabrowski, Jerzy Sliwinski, Ercument Aksakal
THE EFFECT OF PEPTIDE ABSORPTION ON PEPT1 GENE EXPRESSION IN RAINBOW TROUT *Oncorhynchus mykiss* INTESTINE
- 9 **Seyed-Mohammadreza Samaee**, Franz Lahnsteiner, Alicia Estévez, Gemma Giménez
PROTEIN, LIPID AND FATTY ACID COMPOSITION AS POTENTIAL BIO-MARKERS TO DETERMINE EGG QUALITY IN MARINE PELAGOPHIL TELEOSTS: PRELIMINARY RESULTS

THE CHALLENGES OF NEW FEED RESOURCES POSTERS

Board

- 11** **Javier Lopez Luna**, Morris Villarroel-Robinson, Jose Rodriguez-Alvariño, Nuria Nicodemus, Jose M. Duran
PRODUCTION AND WATER QUALITY IN TILAPIA *Oreochromis niloticus* USING DIFFERENT SOURCES OF SPANISH PLANT PROTEIN
- 12** **Mustafa Yildiz**, Müjde Güler
GROWTH PERFORMANCE AND FATTY ACID COMPOSITION OF RAINBOW TROUT *Oncorhynchus mykiss* FED DIETS INCLUDING VARIOUS LEVELS OF COTTONSEED OIL
- 13** **Magdolna Trenovszki**, Vera Kertészné Lebovics, Tamás Müller, Tamás Molnár, Tamás Szabó, Janka Bíró, Béla Urbányi
INFLUENCE OF HIGH CONTENTS OF DIETARY OILS ON GROWTH, FATTY ACID PROFILE, BODY COMPOSITION OF COMMON CARP *Cyprinus carpio* L. KEPT IN INTENSIVE SYSTEM
- 14** **Magdolna Trenovszki**, Vera Kertészné Lebovics, Tamás Müller, Tamás Szabó, Zsolt Boczonádi, Béla Urbányi
COMPARISON OF RAPESEED AND WHEAT DIET ON FATTY ACID PROFILE AND BODY COMPOSITION OF COMMON CARP *Cyprinus carpio* L. KEPT IN CAGES
- 15** **Zabih Ollah Pajand**
STUDY OF SALINITY ON SEXUAL MATURITY AND GROWTH OF *Nereis diversicolor* (ANNELIDA: POLYCHAETA)
- 16** **Rosa María Rico**, R. T. Abdala, M. Chabrilón, S. Tapia-Paniagua, M. C. Balebona, J. L. G. Pinchetti, F. L. Figueroa, M. A. Moriñigo
EVALUATION OF MACROALGAE AS ADDITIVE IN DIETS FOR JUVENILES GILTHEAD SEABREAM *Sparus aurata* L.
- 17** **Sebastian Rakers**, Bianka Grunow, Marina Gebert, Charli Kruse
FISH CELLS GROWN IN VITRO ARE ABLE TO BUILD ORGANOID-LIKE BODIES AND CAN BE USED FOR 3D-CELL CULTURES
- 18** **Carsten Schulz**, Hanno Slawski, Yannis Kotzamanis
FEEDING GILTHEAD SEA BREAM *Sparus aurata* L. GROWERS A VEGETABLE OIL RICH DIET UNDER FIELD CONDITIONS: EFFECTS ON FILLET AND LIVER FATTY ACID PROFILES AND BLOOD SERUM PARAMETERS
- 19** **Samira Naseri**, S. A. Nezami, H. Khara, A. Farzanfar, M. Shakoori
THE STUDY OF IMMUNOGLOBULIN M (IGM) LEVELS AND WHITE BLOOD CELLS (WBC) OF RAINBOW TROUT *Oncorhynchus mykiss* LARVAE WITH DIFFERENT LEVELS OF PROBIOTIC AND IRON IN USE OF SUPPLEMENTED IN DIET
- 20** **Mojgan Khodadadi**, GholamHossein Mohammadi, Sepideh Riazí
FOOD AND FEEDING HABIT OF *Chirocentrus dorab* (FORSSKAL, 1775) IN KHUZESTAN COASTAL WATERS (PERSIAN GULF)
- 21** **Marta Miñambres**, Pablo Alvarez, Adil Aghzar, Alfonso Pita, Montserrat Pérez, Damian Costas, Pablo Presa
GROWTH ENHANCEMENT OF *Mytilus galloprovincialis* JUVENILES FED WITH MULTI-SPECIES ALGAE DIETS

- 22 **Erfan Shahkar**, Hossein Khara, Mohammad Sudagar, Ali Shahkar, Ehsan Shahkar
EFFECTS OF FEEDING FREQUENCY ON THE GROWTH AND SURVIVAL WHITE FISH
LARVAL IN CASPIAN SEA *Rutilus frisii kutum* (KAMENSKY 1901)
- 23 **Stine Wiborg Dahle**, Iciar Martinez, Harry Westavik, Dave Garforth, Clare Winkel
PROCEDURES TO ELIMINATE POTENTIAL CONTAMINANTS IN THE PRODUCTION OF
FARMED ATLANTIC SALMON *Salmo salar*
- 24 **Nolasco, H.**, F. J. Moyano, M. Handam, E. Hita-Peña, A. Barros abd F, Vega-Villasante
Sparus aurata LIPASE AS REACTIVE FOR IN VITRO OIL DIGESTIBILITY
DETERMINATIONS

INTEGRATED MULTI TROPHIC AQUACULTURE POSTERS

Board

- 25 **Marianne Alunno-Bruscia**, Yves Bourlès, Danièle Maurer, Olivier Le Moine,
Philippe Geairon, Joseph Mazurié, Aline Gangnery, Marianne Alunno-Bruscia,
Stéphane Pouvreau, Philippe Gouletquer
MODELLING *Crassostrea gigas* GROWTH AND REPRODUCTION IN DIFFERENT
CONTRASTED ECOSYSTEMS BY USING DYNAMIC ENERGY BUDGET THEORY
- 26 **Jérôme Hussonot**, Mireille Cardinal, Sophie Cariou, Josiane Cornet, Béatrice Dupuy,
Eric Epailard, Mehdi Hamdaoui, Max Nourry, Jean-Come Piquet, Luisa Valente
QUALITY OF OYSTERS COMING FROM AN INTEGRATED POND CULTURE SYSTEM
USED TO TREAT WATER EFFLUENTS OF A MARINE FISH HATCHERY FARM
- 27 **Deniz Devrim Tosun**
SUSTAINABLE AND ENVIRONMENTALLY FRIENDLY AQUACULTURE WITH MUSSEL
CULTURE INTEGRATED FIN FISH AQUACULTURE IN TURKEY
- 28 **Jorunn Skjermo**, Silje Forbord, Ole Jacob Broch, Aleksander Handå, Trond R. Størseth,
Ingrid Ellingsen, Johanne Arff, Egil Lien, Kjell Inge Reitan, Karl Tangen
BROWN SEAWEED AS BIOMASS FOR BIOFUELS
- 29 **Gamze Turan**, Semra Cirik, Hatice Tekogul, Edis Koru, Safak Seyhaneyildiz-Gan,
Amir Neori
VALUE OF SEAWEEDS CULTIVATION IN BIOREMEDETION OF AQUACULTURE
EFFUENTS: A SUSTAINABLE IMTA DEVELOPMENT APPROACH
- 30 **Jonathan Flye Sainte Marie**, Marianne Alunno-Bruscia, Aline Gangnery, Rune Rosland,
Øivind Strand
INDIVIDUAL MUSSEL GROWTH MODEL USING DEB (DYNAMIC ENERGY BUDGET)
THEORY: REVISITING THE DEB PARAMETER VALUES FOR *Mytilus edulis*

SUSTAINAQUA POSTERS

Board

- 35 **Mehrdad Farhangi**, Majid Bakhtiyari, Ahmad Imani, Shafagh Kamal, Gholamreza Rafiei
COMBINED EEEFFECTS OF TWO DIFFERENT DIETARY PROTEIN LEVELS AND FEEDING
TIME ON GROWTH AND NITROGENOUS WASTES PRODUCTION OF RAINBOW
Onchorhynchus mykiss IN A SEMI-RECIRCULATING SYSTEM

- 36** **Bahram Falahatkar**, S. Poursaeid, I. Efatpanah, S. Ranaye Akhavan, B. Meknatkhah, Z. Arzboo
INDUCTION OF SPAWNING PIKEPERCH *Sander lucioperca* IN RESPONSE TO VARIOUS HORMONES
- 37** **Vesna Poleksic**, Zoran Markovic, Zorka Dulic, Marko Stankovic
CARP PRODUCTION INTENSIFICATION IN TRADITIONAL SEMIINTENSIVE CULTURE SYSTEMS BY APPLICATION OF EXTRUDED FEED AND SELECTED FISH FRY
- 38** **Virginie Noirot**, Bjarne Hatlen, Raphaëla Le Gouvello, Bertrand Lanoiselée
FEED INTAKE IN ATLANTIC SALMON *Salmo salar* L. FED DIET WITH A FEED INTAKE STIMULANT THE FIRST SIX WEEKS AFTER SEAWATER TRANSFER
- 39** **Matt Flood**, Chris Noble, Mitsuo Tabata
THE USE OF 'DEMONSTRATOR FISH' TO ENHANCE SELF-FEEDER UTILISATION IN RAINBOW TROUT *Oncorhynchus mykiss*

AQUACULTURE GOVERNANCE, POLICY AND (SOCIO-) ECONOMIC RESEARCH POSTERS

Board

- 45** **Dohoon Kim**, Han Kyu Lim, Byung Hwa Min, Mi Seon Park
EVALUATING THE ECONOMIC VIABILITY OF STARRY FLOUNDER *Platichthys stellatus* LAND-BASED CULTURE IN KOREA
- 47** **Chris Noble**, Markus Kankainen, Jari Setälä, Kari Ruohonen, Børge Damsgård, Hilde Toften
THE BIO-ECONOMIC COSTS AND BENEFITS OF IMPLEMENTING WELFARE-BASED PRODUCTION DECISIONS: UTILISING CO2 STRIPPING TECHNOLOGY IN NORWEGIAN ATLANTIC SALMON *Salmo salar* L. SMOLT PRODUCTION

LIFE CYCLE MANAGEMENT - ENVIRONMENT POSTERS

Board

- 48** **Maryam Shapoori**, Maryam Fallahi, Arash Javanshir, Arash Javanshir
THE STUDY OF ECOLOGICAL CONDITION AN PRODUCTIVITY OF TAJAN RIVER ESTUARY IN MAZANDARAN PROVINCE CASPIAN SEA
- 49** **Anh Tuan Le**, Van Hung Lai
COMPARISON OF BIOLOGICAL, ECONOMIC AND ENVIRONMENTAL EFFICIENCY OF SEACAGE CULTURE OF SPINY LOBSTER *Panulirus ornatus* USING DIFFERENT PRACTICAL DIETS
- 50** **Maryam Shapoori**, Navid Zorriasatein, Arash Javanshir
DIVERSITY AND DISTRIBUTION PATTERNS OF ZOOPLANKTOON COMMUNITIES IN SOUTH CASPIAN SEA BASIN ESTUARY

- 51 **Ahmad Hosseini**
FEEDING AND SPAWNING OF *Sphyraena jello* IN THE NW NORTHERN PERSIAN GULF
- 52 **Seyed Hamed Mosavi Sabet**, Zeynab Moradkhani, Rohollah Norusta,
Hamid Ghasemnejad
MORTALITY RATE OF CONVICT CICHLID *Cichlasoma nigrofasciatum* IN
MASCULINIZATION WITH 17 ALPHA-METHYL TESTOSTERONE
- 53 **Seyed Hamed Mosavi Sabet**, Zeynab Moradkhani, A. R. Khiabani, Mohsen Marjani
MIXED SEXUALING OF GUPPY *Poecilia reticulata* USING OF 17 ALPHA-METHYL
TESTOSTERONE
- 54 **Seyed Hamed Mosavi Sabet**, Zeynab Moradkhani, Abbas Matinfar, Mehdi Soltani
DETERMINATION OF THE TEMPERATURE ON MORTALITY RATE IN SEVERUM
Cichlasoma severum EGGS INCUBATION
- 55 **Mina Rahbar**, H. Khara, M. Ahmadnezhad, A. Khodadoust, M. Samadi,
M. R. Hayatbakhsh, R. Movahed
A COMPARATIVE INVESTIGATION OF FECUNDITY IN SHEMAYA *Alburnus chalcoides*
(GULDENSTAEDT, 1772), IMMIGRANT TO THE ANZALI WETLAND, SEFIDROOD,
CHAMKHALEH AND SHIROOD RIVERS
- 56 **Mohammad Reza Hayatbakhsh**, Hossein Khara, Rashideh Movahed, Mohammad
Sayyad Bourani, Javad Daghygh Roohy, Mohaddeseh Ahmadnezhad, Mina Rahbar
A SURVEY OF HEMATOLOGICAL PARAMETERS OF *Abramis brama orientalis* IN THE
CASPIAN SEA (BANDAR ANZALI COAST IN IRAN)
- 57 **Zeynab Moradkhani**, S. Hamed Mosavi, M. Hosseini, M. K. Raiatpishe, M. Marjani
STERILIZING OF CONVICT CICHLID *Cichlasoma nigrofasciatum* USING OF 17 ALPHA
METHYL TESTOSTERONE
- 58 **Alessandra Roncarati**, G. Brambilla, A. Meluzzi, R. Fanelli, E. Fattore, A. Felici,
A. R. Fulgenzi, A. L. Iamiceli, I. Moret, A. Ubaldi, P. Melotti, A. di Domenico
INTERCALIBRATION EXERCISE AND FATTY ACID PROFILE OF TWO FISH OIL SAMPLES
OF DIFFERENT ORIGIN

MICROBIOLOGY IN AQUACULTURE SYSTEMS POSTERS

Board

- 62 **Hojat Jafaryan**, A. Golpor, M. Adibi
THE EFFECTS OF PROBIOTIC ON GROWTH PARAMETERS IN SAZAN *Cyprinus carpio*
carpio L. LARVAE BY BIOENCAPSULATION OF *Artemia urmiana*
- 63 **Hojat Jafaryan**, M. Ahmadi, H. Adine
USING DAPHNIA MEAL FOR PROMOTING GROWTH EFFICIENCY IN RAINBOW TROUT
Oncorhynchus mykiss FRY BY SUPPLEMENTATION WITH PROBIOTIC BACILLUS
- 64 **Majid Alipour Eskandani**
EFFECT OF *Zataria multiflora boiss.* ESSENTIAL OIL ON THE GROWTH OF *Bacillus*
cereus ATCC 11778 IN A COMMERCIAL FISH SOUP

- 65 Silvana Teresa Tapia-Paniagua**, I. García de la Banda, C. Lobo, P. Díaz-Rosales, L. Narváez, M. C. Balebona, M. A. Moriñigo
ANALYSIS OF GASTROINTESTINAL MICROBIAL DIVERSITY OF CULTURED LARVAE AND JUVENILE *Solea senegalensis*
- 66 Eduardo Martínez-Manzanares**, Marta González-Martín, Olga Espinosa-Gómez, Salvador Arijó Andrade, Roberto de la Herrán, María del Carmen Balebona Accino, José Manuel León Rubio, Silvana Teresa Tapia Paniagua
CHARACTERIZATION OF POTENTIAL MARINE PROBIOTIC BACTERIA FROM *Dicologlossa cuneata* (MOREAU, 1881)
- 67 Yongjae Han**, Ramasamy Harikrishnan, Moonsoo Heo
Aeromonas hydrophila MANAGEMENT USING PROBIOTICS AND HERBAL ENRICHED DIET IN GOLDFISH AND COMMON CARP
- 68 Debora Fracalossi**, F. H. G. Cornelio, E. Cargin-Ferreira, J. L. P. Mourino
SUPPLEMENTATION OF COMMERCIAL FEED WITH *Lactobacillus plantarum* INCREASES GROWTH AND RESISTANCE TO PATHOGEN INFECTION BUT NOT DIETARY NUTRIENT DIGESTIBILITY FOR NILE TILAPIA
- 69 Céline Rebours**, Margarita Novoa Garrido
ANTIMICROBIAL ACTIVITY OF ALGAE AS SOLUTION FOR SUSTAINABLE FISH FARMING - A MINI REVIEW

LIFE CYCLE MANAGEMENT – ANIMAL POSTERS

Board

- 72 Mansooreh Gholami**, Maryam Fallahi
ASSESSMENT OF INDIVIDUAL AND MIXED AMOUNTS OF TRANSMISSION OF HEAVY METALS (Cu,Cd) AND (LAS) DETERGENT TO *Rutilus frisii kutum* FOOD CHAIN
- 73 Alireza Khiabani**, Shila Safaeian, Hedayat Hoseyni, Mohsen Marjani
THE EFFECTS OF ANDROGEN AND VITAMIN E ON SEX REVERSAL AND SURVIVAL OF SWORDTAIL *Xiphophorus hellerii*
- 74 Gilberto Grandi**, Milvia Chicca, Matteo Arveda, Remigio Rossi
IMMUNOLocalIZATION OF ANDROGEN RECEPTORS IN EARLY AND IMMATURE TESTIS OF *Anguilla anguilla* L.
- 75 Yasaman Fahim Dezhban**, Abed Avani
COMPARATIVE STUDY ON PROCESS REPRODUCTION AND GROWTH OF IRANIAN AND FRENCH TROUT
- 76 Maryam Shapoori**
PHYTOPLANKTON PRIMARY PRODUCTION AND DISTRIBUTION IN SOUTH CASPIAN SEA BASIN ESTUARY
- 77 Salvador Cárdenas**, Ana B. Tinoco, Ana Rodríguez-Rúa, África Calvo
EFFECTS OF SALINITY ON GROWTH AND FEEDING OF JUVENILE MEAGRE *Argyrosomus regius* (ASSO, 1801)

- 78** **Salvador Cárdenas**, Ana C. Bajandas, Ana Rodríguez-Rúa
EFFECTS OF DIFFERENT FEEDING RATES ON GROWTH OF JUVENILE MEAGRE *Argyrosomus regius* (ASSO, 1801)
- 79** **Han Kyu Lim**, Byung Hwa Min, Mi Seon Park
COMPARISON OF PHYSIOLOGICAL CONDITIONS ON STARRY FLOUNDER *Platichthys stellatus* ACCLIMATED AND REARED IN DIFFERENT SALINITY WATERS
- 80** **Óscar Moreno Escalante**, Ines Martínez-Pita, Clara Sánchez-Lazo, Inmaculada Palanco Sánchez, Enma Prieto
FEEDING RATION INFLUENCE ON SEXUAL MATURATION OF RAZOR CLAM *Solen marginatus* (PULTENEY, 1799)
- 81** **Tamás Müller**, Attila Budaházy, Magdolna Trenovszki, Árpád Hegyi, Zsolt Boczonádi, Béla Urbányi
OBSERVATIONS ON COMPARISON OF LARVAE SURVIVAL AND JUVENILE OXYGEN TOLERANCE OF PIKEPERCH (*S. Lucioperca*), PIKEPERCH AND VOLGA PIKEPERCH HYBRIDS (*S. Lucioperca* × *S. Volgensis*) AND (*S. Lucioperca* × [*S. Lucioperca* × *S. Volgensis*])
- 82** **Dimitris Sfakianakis**, Ioannis Leris, Maroudio Kentouri
TEMPERATURE-INDUCED PLASTICITY OF SWIMMING PERFORMANCE IN ZEBRAFISH JUVENILES *Danio rerio*
- 83** **Arnaud Campeas**, Sandie Millot, Béatrice Chatain, Marie-Laure Bégout, Marianne Alunno-Bruscia
EFFECTS OF DOMESTICATION, SELECTION AND STRESS ON THE ENERGY BALANCE IN SEA BASS *Dicentrarchus labrax*
- 84** **Sharr Azni Harmin**, Fariborz Ehteshami, Annie Christaneus, Hossein Rameshi
INFLUENCE OF WATER TEMPERATURE ON NUMBER AND SIZE OF EGGS UP TO D-SHAPE LARVAL STAGE OF *Pinctada margaritifera*
- 85** **Saeed Shafiei Sabet**, M. R. Imanpoor, B. Aminian Fatideh, S. Gorgin
STUDY ON SEXUAL MATURITY AND LEVELS OF GONAD STEROID HORMONES IN FEMALE KUTUM *Rutilus frisii kutum* (KAMENSKII, 1901) DURING SPAWNING SEASON FROM RIVER SEFID-RUD OF THE SOUTHERN CASPIAN SEA
- 86** **Natalia Jiménez-Tenorio**, M. A. Bruzón
REPRODUCTIVE BIOLOGY OF THE RED MULLET *Mullus surmuletus* FROM THE MEDITERRANEAN COAST OF ANDALUSIA (SPAIN)
- 87** **Kayode Olurin**, Adedayo Oluwo
GROWTH AND SURVIVAL OF THE AFRICAN CATFISH *Clarias gariepinus* LARVAE FED DECAPSULATED *Artemia* LIVE *Daphnia* AND COMMERCIAL STARTER FEED
- 88** **Maria de Los Ángeles Bruzon**, Ignacio Pozuelo
NON-SPECIFIC ESTERASE ACTIVITY IN *Octopus vulgaris* (CUVIER, 1797) (MOLLUSCA, CEPHALOPODA) PARALARVAE
- 89** **Katarzyna Targonska**, Daniel Zarski, Maciej Szkudlarek, Andrzej Szczerbowski, Marek J. Luczynski, Andrzej Mamcarz, Dariusz Kucharczyk
THE COMPARISON OF TWO SPAWNING AGENTS IN ARTIFICIAL REPRODUCTION OF PIKEPERCH *Sander lucioperca* L.

- 90** **Katarzyna Targonska**, Daniel Zarski, Slawomir Krejszeff, Dariusz Kucharczyk
ARTIFICIAL REPRODUCTION OF CRUCIAN CARP *Carassius carassius* L. –
PRELIMINARY RESULTS
- 91** **Dariusz Kucharczyk**, Katarzyna Targonska, Daniel Zarski, Marek J. Luczynski,
Andrzej Szczerbowski, Wojciech Rozek, Roman Kujawa, Andrzej Mamcarz
ANDROGENETIC ORIGIN OF VIMBA BREAM *Vimba vimba* L. USING GOLDFISH EGGS
- 92** **Dariusz Kucharczyk**, Katarzyna Targonska, Daniel Zarski, Rafal Chwaluczyk
ARTIFICIAL REPRODUCTION OF VIMBA BREAM *Vimba vimba* L. UNDER CONTROLLED
CONDITIONS
- 93** **Mi Seon Park**, Byung Hwa Min, Han Kyu Lim
A POSSIBILITIES OF BRACKISH WATER CULTURE OF STARRY FLOUNDER *Platichthys
stellatus*
- 94** **Teresa Ostaszewska**, Maciej Kamaszewski, Piotr Grochowski, Konrad Dabrowski,
Tiziano Verri, Jerzy Sliwinski
THE EFFECT OF VARIOUS PROTEIN SOURCES ON RAINBOW TROUT *Oncorhynchus
mykiss* INTESTINE MORPHOLOGY
- 96** **Mojdeh Chelemai**, Shala Jamili, Issa Sharifpour, Hossein Ghorbanzadeh
REPRODUCTIVE STATUS OF FEMALE *Liza abu* IN THE WATER OF THE KHOZESTAN
PROVINCE
- 97** **Navid Zorriasatein**, Behrooz Dehzad
BENTHIC FAUNA AND WATER QUALITY OF GORGANROOD (SOUTHIC CASPIAN SEA
BASIN)
- 98** **Mohammad Mazandarani**, Hosein Ali Kh. Rostami
EVALUATION OF NEMATODE AND CESTOD PARASITES IN DIGESTIVE TRACT OF
BROOD STOCKS OF THE PERSIAN STURGEON *Acipenser persicus* IN THE SOUTHEAST
OF THE CASPIAN SEA
- 99** **Mohammad Mazandarani**, Hosein Ali Kh. Rostami
HEMATOLOGICAL CHARACTERISTICS OF SHIP STURGEON *Acipenser nudiventris*
BROODSTOCKS OF THE CASPIAN SEA
- 100** **Fernando Afonso**, Helena Rocha, Vitor Almada
AGONISTIC BEHAVIOUR STUDIES OF JUVENILE RAINBOW TROUT *Oncorhynchus
mykiss* AND FARIO TROUT *Salmo trutta*
- 102** **Giovanna Marino**, Patrizia Di Marco, Alessandra Priori, Tommaso Petochi,
Maria Grazia Finoia, Valeria Donadelli, Alessandro Longobardi
WELFARE ASSESSMENT IN SEA BREAM *Sparus aurata* AND SEA BASS *Dicentrarchus
labrax* FARMED IN SEA CAGES
- 103** **Giovanna Marino**, Tommaso Petochi, Patrizia Di Marco, Valeria Donadelli,
Alessandro Longobardi, Maria Grazia Finoia
STATISTICAL TOOLS TO ASSESS WELFARE IN FARMED SEABASS *Dicentrarchus labrax*
AND SEABREAM *Sparus aurata*

- 104** **Marta Miñambres**, Adil Aghzar, Alfonso Pita, Montserrat Pérez, Pablo Presa
EARLY DETERMINISM OF GROWTH RATE IN *Mytilus galloprovincialis* SEED CULTURED
IN LONG-LINE
- 105** **Zahra Madadi**, Hossein Khara, Mohammadreza Imanpoor, Seyyed Akbar
Alimohammadi, Seyyed Valda Baniesmaeeli, Reza Asadi
COMPARISON OF SPERM DENSITY AND TOTAL DURATION OF SPERM MOTILITY
BETWEEN WILD AND CULTURED BELUGA *Huso huso* AND EFFECTS ON
FERTILIZATION SUCCESS AND HATCHING RATE

MULTIFACTORIAL DISEASE POSTERS

Board

- 108** **HosseinAli Ebrahimzadeh Mousavi**, Baba Mokhayer, Sara Medizadeh Mood,
Mehdi Soltani, Saeid Mirzargar, Babak Shoaibi Omrani, Fujan Mehrdana
ASCOCOTYLE (DIGenea: Heterophyidae) METACERCARIAL INFECTION IN GILLS OF
TWO SPECIES OF IMPORTED ORNAMENTAL FISH IN IRAN
- 109** **Hamid Reza Jamalzadeh**, M. R. Ghomi
EFFECT OF FUNGAL INFECTION ON BLOOD CHARACTERISTICS OF CASPIAN SALMON
Salmo trutta caspius
- 110** **Manchul Kim**, Jusang Kim, Ramasamy Harikrishnan, Moonsoo Heo
RESTORATIVE EFFECT OF MIXED HERBAL TREATMENT IN GOLD FISH *Carassius
auratus* INDUCED WITH *Aeromonas hydrophila* INFECTION AND THE ASSOCIATED
HISTOPATHOLOGICAL CHANGES
- 111** **Jusang Kim**, Manchul Kim, Ramasamy Harikrishnan, Moonsoo Heo
HISTOPHAGOUS SCUTICOCILIATE *Philasterides dicentrarchi* MANAGEMENT USING
CHEMOTHERAPY IN KOREA OLIVE FLOUNDER *Paecilichthys olivaceus*
- 112** **Jehee Lee**, Mahanama De Zoysa, Ilson Whang
IMMUNE RESPONSES OF DISK ABALONE TUMOR NECROSIS FACTOR ALPHA (TNF- α)
- 113** **Jehee Lee**, Mahanama De Zoysa, Ilson Whang
EXPRESSION ANALYSIS OF THE DISK ABALONE ANTIOXIDANT ENZYMES AGAINST
THERMAL, SALINITY AND HYPOXIA STRESSES
- 114** **Jehee Lee**, Mahanama De Zoysa
MOLECULAR CLONING AND CHARACTERIZATION OF NOVEL FAS LIGAND FROM
MOLLUSK ABALONE *Haliotis discus discus*
- 115** **Ilson Whang**, Mahanama De Zoysa, Se-Jae Kim, Jehee Lee
MORPHOLOGY AND PHYLOGENY OF *Pseudocohnilembus longisetus* (PROTOZOA,
CILIOPHORA, SCUTICOCILIATIDA) FROM FARMED BLACK ROCKFISH *Sebastes
schlegelii* IN KOREA
- 116** **Ilson Whang**, Mahanama De Zoysa, Se-Jae Kim, Jehee Lee
FIRST REPORT OF *Paranophrys marina* (PROTOZOA, CILIOPHORA,
SCUTICOCILIATIDA) AS AN ADDITIONAL CAUSATIVE AGENT OF SCUTICOCILIATOSIS
IN OLIVE FLOUNDER *Paralichthys olivaceus* IN KOREA: MORPHOLOGICAL AND
PHYLOGENETIC ANALYSIS

- 117 **Jehee Lee**, Qiang Wan
EFFECT OF HEAVY METALS STRESS ON ANTIOXIDANT ENZYMATIC SYSTEM IN DISK ABALONE *Haliotis discus discus*
- 118 **Zohair I. F. Rahemo**, Waad H. Abood
FISH SPECIES CONSUMPTION IN NINAVA GOVERNORATE, IRAQ
- 119 **Majid Mohammadnejad Shamoushaki**
THE STUDY OF DIGESTIVE PARASITE *Cyprinus carpio* AND *Liza auratus* IN NORTH EAST OF CASPAIN SEA

EUROSHELL POSTERS

Board

- 126 **René Robert**, Marc Suquet, Anne Donval, Catherine Labbé, Raphael Brizard, Jean René Le Coz, Claudie Quere, Abdellah Benabdelmouna, Pierrick Haffray
SPERM QUALITY IN DIPLOID AND TETRAPLOID PACIFIC OYSTERS *Crassostrea gigas*
- 127 **B. Petton**, P. Le Souchu, C. Mingant, R. Robert
SMALL VOLUME FLOW-THROUGH CONTAINERS FOR BIVALVE LARVAL REARING
- 128 **T. Magnesen**, G. Christophersen, S. Andersen, G. Román, R. Robert, L. Pérez-Parallé, L. Sánchez
PRESENTATION OF THE SETTLE PROJECT: BIVALVE CONDITIONING AND SETTLEMENT – KEYS TO COMPETITIVE HATCHERY PRODUCTION. EC, SP4-CAPACITIES, FP7-SME-2007-1 GRANT AGREEMENT NO 222043
- 129 **Å. Espmark**, Y. Barr, J. E. Rønneberg, S. Tuene
FACTORS TO IMPROVE RE-STOCKING OF BLUE MUSSELS *Mytilus edulis* DURING HARVESTING
- 130 **L. Cilenti**, T. Scirocco, A. Specchiulli, M. Florio, P. Breber
MEDITERRANEAN LAGOON BIONOMICS AND THE FARMING OF THE CARPET CLAM *Tapes decussatus* L.
- 131 **D. Melaku Canu**, C. Solidoro, D. Brigolin, R. Pastres, L. Rossetto, S. Dalla Riva
INTEGRATED MODEL FOR CLAM FARMING IN THE LAGOON OF VENICE
- 132 **Alessandra Roncarati**, A. Felici, A. Dees, P. Melotti
QUALITY TRAITS OF CUPPED OYSTER *Crassostrea gigas* REARED IN A LONG-LINE FARM OF THE MIDDLE ADRIATIC SEA
- 133 **Ditte Toerring**, Jens Kjerulf Petersen, Parnuna Egede
BYSSUS ATTACHMENT STRENGTH IN LONG-LINE CULTURED BLUE MUSSELS *Mytilus edulis*

POSTERS

RAS SESSION POSTERS

Board

- 134 **Oliver Schneider**, J. van der Heul, E. Schram, J. Schrama, B. S. Saether
INCREASED MOISTURE OF PELLETTED DRY DIETS IMPROVES SOLE GROWTH

GENERAL AQUACULTURE POSTERS

Board

- 138 Zahra Ghiasvand**, Abbas Matinfar, Shahla Jamili
SURVEY ON THE EFFECTS OF PHOTOPERIOD AND SEXUAL PROPORTION IN THE PROPAGATION OF SAILFIN MOLLY *Pocilia latipinna*
- 139 Afshin Akhondzadeh Basti**, Hossein Ali Ebrahimzadeh Mousavi
THE STUDY OF BACTERIAL PATHOGENS IN CULTIVATED AND MARINE FISH IN NORTHERN PROVINCES OF IRAN
- 140 Sara Mehdizadeh Mood**, Hossein Ali Ebrahimzadeh Mousavi, Baba Mokhayer, Mohammad Reza Ahmadi, Mahmood Masoumian, Babak Shoaibi Omrani
REPORT OF *Myxobolus* sp. (MYXOSPOREA) IN PEARLSCALE GOLDFISH *Carassius auratus* GILLS IMPORTED INTO IRAN
- 141 Mona Izadian**, Mohsen Shahriari Moghadam
FEEDING BEHAVIOR OF *Saurida tumbil* IN PERSIAN GULF
- 142 Mohsen Shahriari Moghadam**, Ebrahim Alizadeh, Mahdi Ghanbari
SALINITY TOLERANCE AND HISTOPATHOLOGICAL ALTERNATIONS IN THE GILL OF GOLDEN GREY MULLET *Liza auratus*
- 143 Jan Kouril**, E. Mikodina, A. Mikulin, V. Lubayev, J. Skerik, V. Svinger
SENSITIVITY OF DIFFERENT SPECIES ON ADULT SALMONID FISH AND GRAYLING TO CLOVE OIL
- 144 Tamás Müller**, Gábor Nyitrai, Magdolna Trenovszki, Miklós Bercsényi, Béla Urbányi
ARTIFICIAL PROPAGATION OF VOLGA PIKEPERCH *Sander volgensis*
- 145 Diego Mendiola**, Øyvind Prestvik, Ulf Erikson, Tim Dempster, Esteban Puente
HANDLING AND TRANSPORTATION OF LIVE BAIT TO THE TUNA FISHING GROUNDS OFF BAY OF BISCAY
- 146 Clara Sánchez Lazo**, Inés Martínez Pita, Óscar Moreno Escalante
EFFECT OF DIFFERENT MICRO-ALGAE MIXTURES AND RATIOS IN HATCHERY BROODSTOCK CONDITIONING OF THE MUSSEL *Mytilus galloprovincialis*
- 147 Edo D'Agaro**, A. Stravisi, M. Cimolino
QUALITY CHANGES OF CULTURED SEA BASS *Dicentrarchus labrax* AFTER ELECTRO-FISHING TREATMENTS
- 148 Monica F. Brinchmann**, Christopher Marlowe A. Caipang, Viswanath Kiron
EFFECT OF SHORT TERM CROWDING ON IMMUNE AND STRESS TRANSCRIPTS, HUMORAL RESPONSES AND ANTIBACTERIAL ACTIVITY OF ATLANTIC COD *Gadus morhua*
- 149 Vlastimil Stejskal**, Z. Svobodová, J. Kouřil
SPLEEN PATHOLOGY IN INTENSIVE CULTURED EURASIAN PERCH *Perca fluviatilis* L.
- 150 Vlastimil Stejskal**, J. Máchová, E. Sudová, V. Piačková, J. Kouřil, H. Kroupová
EFFECT OF NITRITE ON HAEMATOLOGICAL PARAMETERS IN EURASIAN PERCH *Perca fluviatilis* L.

- 151 Yelda Aktan**
POTENTIALLY HARMFUL AND/OR TOXIC MICROALGAE IN THE MARINE
AQUACULTURE AREA FROM TURKEY
- 152 Maria Cesarina Abete, A. J. Martin Dorr, Nicole Pacini, Marzia Righetti,**
Antonia Concetta Elia, Renata Tarasco, Paola Arsieni, Marino Prearo
HEAVY METAL ACCUMULATION IN FARMED RED SWAMP CRAYFISH *Procambarus*
clarkii FED A COMMERCIAL DIET
- 153 Marino Prearo, A. J. Martin Dorr, Nicole Pacini, Antonia Concetta Elia, Marzia Righetti,**
Laura Gasco, Renata Tarasco, Maria Leogrande, Francesco Gai, Stefano Marturano,
Maria Cesarina Abete
CADMIUM, LEAD AND MERCURY LEVELS IN ITALIAN FARMED SIBERIAN STURGEON
Acipenser baeri
- 154 Ilaria Giorgi, Maria Letizia Fioravanti, Andrea Gustinelli, Antonia Concetta Elia,**
Marzia Righetti, Monica Caffara, A. J. Martin Dorr, Stefania Squadrone,
Maria Cesarina Abete, Marino Prearo
PROLIFERATIVE KIDNEY DISEASE (PKD) IN ITALIAN TROUT FARMS MONITORED
FROM 2004-2008
- 155 Maria Cesarina Abete, Antonia Concetta Elia, A. J. Martin Dorr, Marzia Righetti,**
Renata Tarasco, Matteo Pellegrino, Nicole Pacini, Diana Minardi, Stefania Squadrone,
Marino Prearo
BIOACCUMULATION OF SELENIUM IN FARMED FISH: ANALYSIS OF COMMON CARP
Cyprinus carpio AND TENCH *Tinca tinca* FED WITH A COMMERCIAL DIET
- 156 Adele Fabbrocini, Raffaele D'Adamo, Ombretta Di Matteo, Giovanni Sansone,**
Gerarda Sorrenti
EXTENDING THE VIABILITY OF THE CARPET CLAM *Tapes decussatus* (LINNAEUS,
1758) SPERMATOZOEA. EFFECTS OF CRYOPROTECTANTS ON THE SPERM VELOCITY
PARAMETERS
- 157 Uwe Waller, A. Gärtner, Jan Schroeder, R. Hanel**
THE TOXICITY OF OZONE-PRODUCED OXIDANTS TO THE PACIFIC WHITE SHRIMP
Litopenaeus vannamei
- 158 Toru Kobayashi, Ippei Yoshino**
MORPHOGENESIS AND BEHAVIOR OF PRIMORDIAL GERM CELLS IN THE EARLY
EMBRYONIC DEVELOPMENT OF THE JAPANESE RED SEA BREAM *Pagrus major*
- 159 Susana Nóvoa, Fiz da Costa, Ana Cerviño-Otero, Andrea Louzán, Justa Ojea,**
Dorotea Martínez-Patiño
EFFECTS OF SUBSTRATUM AND STOCKING DENSITY ON THE PERFORMANCE OF
JUVENILES OF *Ensis arcuatus* IN INTERMEDIATE CULTIVATION TRIALS
- 160 Dorotea Martínez-Patiño, Fiz da Costa, Susana Nóvoa, Justa Ojea**
INVESTIGATING THE EFFECT OF FEEDING REGIMENS ON GAMETOGENESIS OF
BROODSTOCK OF RAZOR CLAM *Ensis siliqua* UNDER HATCHERY CONDITIONS
- 161 María del Pilar Yamuza, M^a Ángeles Bruzón**
STUDY SKELETAL DEFORMITIES IN DESCENDANTS OF DUSKY GROUPER *Ephinepelus*
marginatus BORN IN CAPTIVITY

- 162** **María del Mar García**, M^a Angeles Bruzón
GAMETOGENIC CYCLE AND FIRST SEXUAL MATURITY SIZE OF RED PORGY *Pagrus pagrus* IN THE GULF OF CADIZ (SW SPAIN)
- 163** **Juana Durán**, E. Pastor, A. Grau, E. Massuti-Pascual, J. M. Valencia, M. M. Gil
TOTAL REPLACING OF ARTEMIA BY AN ARTIFICIAL DIET IN LARVAL REARING
FEEDING PROTOCOL OF MEAGRE *Argyrosomus regius* (ASSO, 1801)
- 164** **Carsten Schulz**, Sven Würtz, Bjoern Hermelink, Werner Kloas, Bernhard Rennert
INVESTIGATION ON THE REGULATION OF *Sander lucioperca* GONADAL
DEVELOPMENT INFLUENCED BY EXOGENOUS FACTORS
- 165** **Srebrenka Nejedli**, Zvonimir Kozaric, Vesna Gjurcevic Kantura, Željka Matašin,
Damir Nejedli
MUSCLES HISTOMORPHOLOGY OF CERTAIN SEA FISH FROM THE ADRIATIC SEA
(CROATIA)
- 166** **Frantisek Vacha**, P. Vejsada, M. Cepak
PROBE SUITABILITY FOR TEXTURE PROFILE ANALYSIS IN COMMON CARP *Cyprinus carpio* FLESH
- 167** **Mohamad Khosravizadeh**, J. Ghafleh Marammazi, P. Kochanian,
E. Rjabzadeh Ghotrami, V. Yavary, M. Nikpey
OPTIMAL DIETARY CARBOHYDRATE TO LIPID RATIO IN GATTAN *Barbus xanthopterus*
FINGERLINGS
- 168** **Bahram Falahatkar**, M. Najafi, M. H. Tolouei, A. Safarpour Amlashi
EFFECT OF FEEDING TIME AND LEVELS OF FAT ON GROWTH PERFORMANCE IN
BELUGA *Huso huso*
- 169** **Pedro Encarnacao**, Gerd Schatzmayr, Dieter Moll, Elsa Vekiru, Dian Schatzmayr
BIOTRANSFORMATION AND MICROBIAL DEGRADATION – ABOUT THE POTENTIAL OF
CERTAIN MICROORGANISMS TO DETOXYFY MYCOTOXINS
- 170** **Angelo Ferrari**, Giuliana Ottonello, Francesca Tarchino, Laura Lettieri, Barbara Vivaldi,
Irene Schiavetti
THE TREND OF 18 PCBS IN SAMPLES OF SEA BASS AND GILTHEAD SEA BREAM:
PRELIMINARY STUDY
- 171** **Grigory Merkin**, Bjørn Roth, Camilla Gjerstad, Erik Dahl-Paulsen, Ragnar Nortvedt
EFFECTS OF PRE-SLAUGHTER PROCEDURES ON STRESS RESPONSES IN RAINBOW
TROUT *Oncorhynchus mykiss*
- 172** **Inés García de La Banda**, P. Bremer, C. Lobo, I. Martín, M.A. Moriñigo,
S. Tapia-Paniagua, M. Chabrellón, J.M. León-Rubio, S. Arijó, X. Moreno-Ventas
ENHANCEMENT OF LARVAL AND POSTLARVAL SENEGAL SOLE *Solea senegalensis*
(KAUP) CULTURE BY PDP11 *Shewanella* PROBIOTIC ADDITION
- 173** **Slavca Hristov**, Renata Relic, Vesna Poleksic, Zoran Markovic
ESTABLISHMENT OF FISH STRESS STUDIES WITHIN THE CENTER FOR FISHERY
AND APPLIED HYDROBIOLOGY AT THE FACULTY OF AGRICULTURE UNIVERSITY OF
BELGRADE

- 174 **Reza Malekzadeh Viayeh**, Habib Mohammadi, Ali Mohammadyari
GROWTH PERFORMANCE OF *Brachionus* ROTIFERS IN DIFFERENT FEEDING AND SALINITY REGIMES
- 175 **Jehee Lee**, Chamilani Nikapitiya, Chulhong Oh, Youngdeuk Lee, Ilson Whang
ISOLATION AND CHARACTERIZATION OF THERMOSTABLE β -AGARASE AG17 FROM MARINE BACTERIA *Agarivorans* sp. AG17
- 176 **Jehee Lee**, Chamilani Nikapitiya
IMMUNE RESPONSES OF DISK ABALONE PATTERN RECOGNITION PROTEIN
- 177 **Jehee Lee**, Chamilani Nikapitiya, Ilson Whang
ANTIOXIDANT FUNCTION OF RECOMBINANT PEROXIREDOXIN 6 OF DISK ABALONE *Haliotis discus discus*
- 178 **Rashideh Movahed**, H. Khara, M. R. Hayatbakhsh, M. Sayad Boorany, J. Daghygh Roohy, M. Ahmadnezhad, M. Rahbar
STUDY OF HEMATOLOGICAL PARAMETERS OF *Perca fluviatilis* IN THE ANZALI WETLAND IN IRAN
- 179 **Francesco Pascoli**, Daniela Bertotto, Elena Negrato, Carlo Poltronieri, Susanna Sivieri, Giuseppe Radaelli, Claudia Simontacchi
WHOLE BODY CORTISOL AND EXPRESSION OF INDUCIBLE HSP70 mRNA DURING ONTOGENESIS OF SEA BASS *Dicentrarchus labrax* SUBJECTED TO HEAT SHOCK
- 180 **Marta Miñambres**, Adil Aghzar, Alfonso Pita, Montserrat Pérez, Pablo Presa
INFLUENCE OF DEPTH AND SUBSTRATE ON SEED RECRUITMENT OF *Mytilus galloprovincialis* IN ROPE COLLECTORS
- 181 **Atle Foss**, Endre Grimsbø, Erik Vikingstad, Ragnar Nortvedt, Erik Slinde, Bjørn Roth
LIVE CHILLING OF ATLANTIC SALMON: EFFECTS FROM HANDLING AND TEMPERATURE DECREASE ON WELFARE
- 182 **Meisam Hosseini**, G. Azari Takami, A. Yousefi Jourdehi, A. Zamini, M. Alam, S. H. Mosavi
INVESTIGATION OF "DIATOMITE" EFFECTS ON GROWTH FACTORS, SURVIVAL AND CARCASS QUALITY IN RAINBOW TROUT *Oncorhynchus mykiss*
- 183 **Shahab Movaghari**, A. Kuchakian, H. Ershad, S. Hamed, S. Mosavi
STUDY ON TVN OF MARINADE, FROZEN SHRIMP AND DRIED SHRIMP *Parapenaeopsis stylifera*
- 184 **Shahab Movaghari**, A. Kuchakian, Z. Moradkhani, S. Hamed, S. Mosavi
STUDY ON TOTAL COUNT OF MICROORGANISMS OF MARINADE, FROZEN SHRIMP AND DRIED SHRIMP *Parapenaeopsis stylifera*
- 185 **Mohamad Karim Raiatpishe**, S. Hamed, S. Mosavi., S. Mohebi, M. Marjani
EFFECTIVENESS OF GONADOTROPIN HORMONE AND CARP PITUITARY EXTRACT (CPE) ON SPAWNING SUCCESS, FECUNDITY, AND FERTILIZATION SUCCESS IN GOLDFISH *Carassius auratus*

- 186** **Giovanni Sansone**, Francesco Del Prete, Valentina Vitiello, Gerarda Sorrenti, Antonio Luca Langellotti, Adele Fabbrocini
FERTILIZATION AND LARVAL DEVELOPMENT IN *Crassostrea gigas* REPRODUCTION WITH CRYOPRESERVED GAMETES
- 187** **Alessandra Roncarati**, G. Brambilla, R. Miniero, G. Brizzi, V. Cascone, M. Mangiacotti, G. Marchesani, O. Miedico, E. Chiaravalle
METHYLMERCURY IN FEEDS AND IN SEA BREAM FILLETS UNDER ROUTINE FARMING CONDITIONS
- 188** **Yi-Min Chen**, Han-You Lin, Ching-Hung Shih, Hsiao-Chien Liu, Chien-Lung Wu, Chin-Chiu Lin, Han-Ching Wang, Tzong-Yueh Chen, Huey-Lang Yang
VIBRIO EXPRESSION SYSTEM: A NOVEL PLATFORM FOR PRODUCING PISCATORIAL SUBUNIT VACCINES
- 189** **Van Can Nhu**, Kristof Dierckens, T. Hong Nguyen, T. Tuyet Minh Hoang, Thanh Luu Le, Mai Thien Tran, Christel Nys, Patrick Sorgeloos
EFFECT OF EARLY CO-FEEDING AND DIFFERENT WEANING DIETS ON PERFORMANCE OF COBIA *R. canadum* LARVAE AND JUVENILES
- 190** **Begoña Pérez-Villarreal**, Bald Carlos, Larsen Erling P.
ONLINE MAPPING TOOL OF SEAFOOD RESEARCH RESOURCES IN EUROPEAN, MEDITERRANEAN AND LATIN AMERICAN COUNTRIES
- 191** **Leon T.N. Heinsbroek**, Vasco C. Mota, Luís A. Sampaio, Ep H. Eding, Johan A.J. Verreth
EFFECTS OF LOW PH AND HIGH AMMONIUM ON GROWTH AND BLOOD PHYSIOLOGY IN TURBOT *Psetta maxima*
- 192** **Reza Asadi**, Mohamad Reza Imanpor , Behroz Dastar
EFFECTS OF REPLACEMENT OF DIETARY FISH OIL BY CANOLA OIL ON GROWTH PERFORMANCE IN JUVENILE BELUGA *Huso huso*
- 193** **Sandrine Barrey**, Yves Bertheau, Laurence Boy, Léo Coutellec, Isabelle Doussan, Muriel Mambrini, Catherine Mariojouis, May-Ahn Ngo, Anne Françoise Schmid, Frédéric Sohm
PRESENTATION OF DOGMATIS, AN INTER AND MULTIDISCIPLINARY PROGRAMME FOR THE ASSESSMENT OF THE IMPACTS OF GENETICALLY MODIFIED FISH
- 194** **Kaveh. Rahmani Farah**, B.Shabanpur, A. Shabani, M. Imanpur
IMPACT OF STUNNING PRE SLAUGHTER ON RIGOR DEVELOPMENT AND POST MORTEM MUSCLE PH IN COMMON CARP *Ciprynus carpio*
- 195** **G. A. Santos**, J. W. Schrama, J. Capelle, J.H.W.M. Rombout and J. A. J. Verreth
EFFECTS OF DISSOLVED CARBON DIOXIDE ON ENERGY METABOLISM AND STRESS RESPONSE IN EUROPEAN SEABASS (*DICENTRARCHUS LABRAX*)