



WA 2015 JEJU

World Aquaculture 2015 Jeju

TUESDAY, May 26

AQUAFORUM

Tuesday, May 26 14:00 - 18:20 Tamna Hall A
Chairs: Michael Schwarz, Craig Browdy, Mario Stael

14:00 Michael Schwarz
WELCOME

14:10 Isidor Yu
SUCSESSES AND CHALLENGES IN AQUACULTURE IN KOREA, A MODEL FOR
REGIONAL TECHNOLOGY DEVELOPMENT

BIOSECURITY

14:30 Leo Galli
ASSURING HEALTH AND BIOSECURITY IN FINFISH CULTURE SYSTEMS

14:50 Victoria Alday
AN UPDATE ON THE ROLE OF BIOSECURITY IN CONTROLLING DISEASE IN
MARINE SHRIMP CULTURE

15:10 Panel discussion: FishVet – Bayer – Merck – Pharmaq
BIOSECURITY: DEVELOPING A REGIONAL AQUATIC DISEASE INITIATIVE

15:40 BREAK

NUTRITION**16:00 Craig Browdy**

AQUACULTURE FEEDS AND FEEDING: NEW TECHNOLOGIES TO SUSTAINABLY DOUBLE AQUACULTURE PRODUCTION BY 2050

16:20 Kangsan Mai

SUSTAINABILITY OF CHINA AQUACULTURE AND AQUAFEED INDUSTRY

16:40 Panel Discussion: Alltech, Biomar, Skretting, Hinter, NutriAd, INVE, Grobest, Cargill, Phileo – LeSaffre, EWOS, Biomin, Zeigler, Techna, Nutrakol

THE ALTERNATIVE INGREDIENTS AND FUTURE AQUAFEEDS IN 2020

AQUACULTURE PRODUCTION SYSTEMS**17:10 Patrick Sorgeloos**

PROGRESS IN MARINE FISH AND SHRIMP LARVICULTURE WITH FOCUS ON OPPORTUNITIES FOR ASIA

17:30 Shuanglin Dong

CURRENT AND FUTURE TRENDS IN REGIONAL AQUACULTURE PRODUCTION SYSTEMS IN CHINA

17:50 Panel discussion: Blue Aqua, Pentair, AKVA, Faivre, Nutrakol

FUTURE PRODUCTION SYSTEMS, IN KOREA AND ASIA – WHAT TO CHOOSE?

WORLD AQUACULTURE 2015

OPENING CEREMONY

Tuesday, May 26 18:30 - 19:30 Tamna Hall A

Chairs: Jay Parsons, S. K. Choi

18:40 Opening Address - Kang Seok-Joong, President of KOSFAS

18:45 Welcome Address - Won Heeryong, Governor of Jeju Province

18:50 Encouragement Address - Yoo Ki-Jun, Minister of MOF

18:55 Congratulation 1 - Koo Sung-Ji, Chairman of Jeju Congress

19:00 Congratulation 2 - Kim Woo-Nam,

Chairman of Standing Division, National Assembly

19:05 Acknowledgment Remarks - Graham Mair, President of WAS

19:10 Awards - Presidents of WAS/KOSFAS

19:22 Announcement on the Dinner - Moderator

19:30 Welcome Reception - 5th Floor Ocean View & Foyer

WEDNESDAY, May 27

PLENARY SESSION

Wednesday, May 27 9:00 - 10:40 Tamna Hall A

Chairs: Jay Parsons, S. K. Choi

9:00 Welcome – KOSFAS, APC and WAS

9:15 Jeong Yeong-Hoon, Plenary Speaker
STATUS AND FUTURE OF KOREAN AQUACULTURE

9:45 Shakuntala Haraksingh Thilsted, Plenary Speaker
HOW CAN AQUACULTURE CONTRIBUTE TO HEALTHY DIETS OF THE POOR?

10:15 Kangsen Mai, Plenary Speaker
AQUACULTURE IS THE ONLY WAY TO MEET THE INCREASING DEMAND FOR
AQUATIC PRODUCTS — THE EXAMPLE OF CHINA

10:45 Student Spotlight

ABALONE

Wednesday, May 27 11:30 - 12:50 Room 301

Chairs: Grant Leeworthy, K. S. Choi, H. K. Lim

11:30 Kwang-Sik Choi, Byeong-Hak Kim, Han-Kyu Lim
CURRENT STATUS OF ABALONE AQUACULTURE IN KOREA

**11:50 Kyoung-Mi Won, Deok-Chan Lee, Byeong-Hak Kim, Jeong-Yong Lee,
Tae Seok Moon, Mi-Young Cho, Myoung-Ae Park**
CURRENT STATUS OF ABALONE DISEASES IN SOUTH KOREA

12:10 Nam-II Won, Jin-Woo Sung
LESSONS FROM RECENT ABALONE PRODUCTION IN KOREA: IMPLICATIONS
FOR SUSTAINABLE AND RESILIENT PRODUCTION

CARPS

Wednesday, May 27 11:30 - 12:50 Samda Hall B

Chairs: Konrad Dabrowski, S. R. Lim

11:30 Konrad Dabrowski, MacKenzie Miller
FISH LARVAE ARE THE FASTEST GROWING VERTEBRATES ON EARTH –
CARP EXAMPLE

11:50 Noor Khan, Sajid Mahmood
EVALUATION OF WATER HYACINTH *Eichhornia crassipes* SUPPLEMENTED
DIETS ON THE GROWTH, DIGESTIBILITY AND HISTOLOGY OF GRASS CARP
Ctenopharyngodon idella FINGERLINGS

FLATFISH

Wednesday, May 27 11:30 - 12:50 Room 303

Chairs: Luís André Sampaio, S. C. Bai, S. H. Lee

- 11:30 Bong-Joo Lee**, Jin-Hyeok Lee, Kang-Woong Kim, Kyoung-Duck Kim, Sung-Sam Kim, Hyon-Sob Han, Kyeong-Jun Lee, Konrad Dabrowski
EFFECT OF DIETARY TOCOPHEROL, THIAMINE, SELENIUM, AND METHIONINE ON MERCURY EXCRETION AND BIOCHEMICAL RESPONSES IN MERCURY EXPOSED OLIVE FLOUNDER *Paralichthys olivaceus*
- 11:50 Yutaka Haga**, Hikari Ohtoshi, Reiji Masuda, Tomoko Itoh, Shin Gyonho, Shuichi Satoh
DEVELOPMENT, GROWTH AND FEED INTAKE OF JAPANESE FLOUNDER *Paralichthys olivaceus* LARVAE AND JUVENILE FED A NON-HEATED FISHMEAL BASED DIET
- 12:10 Limsoo Shin**, Kyeongho Han
MORPHOLOGIC, OSTEOLOGIC AND PHYLOGENIC CHARACTERISTICS OF RIGHT-EYE FLOUNDER *Cleisthenes pinetorum* AND *Hippoglossoides dubius*
- 12:30 Luís E. C. Conceição**, Wilson Pinto, Sofia Engrola
WEANING OF SENEGALESE SOLE: FEEDS AND FEEDING REGIMES TO REACH THE MAXIMUM GROWTH POTENTIAL
- 12:50 Mirko Bögner**, Sarah Zwicker, Matthew J. Slater
INFLUENCE OF FEEDING SEQUENCE, LIGHT AND COLOUR ON PERFORMANCE OF SELF-GRADING SYSTEMS FOR TURBOT *Scophthalmus maximus*

RECIRCULATING SYSTEMS

Wednesday, May 27 11:30 - 12:50 Halla Hall B

Chairs: Rodney Missen, J. H. Lee

- 11:30 Gerard Adam**, Rodney Missen, Wil Conn
MANAGING WATER QUALITY TO MAXIMISE PROFIT – A RECIRCULATING AQUACULTURE SYSTEM PERSPECTIVE
- 11:50 Wade O. Watanabe**, Tyler F. Gibson, Thomas M. Losordo, Robert F. Whitehead, Patrick M. Carroll, Michael A. Mallin
EVALUATION OF CHEMICAL POLYMERS APPLIED AS COAGULATION AIDS FOR REMOVAL OF SUSPENDED SOLIDS FROM INTENSIVE MARINE RECIRCULATING AQUACULTURE SYSTEM DISCHARGE
- 12:10 Akeem Dauda**, Ayoola Akinwale
COMPARATIVE EVALUATION OF POLYPROPYLENE AND PALM KERNEL SHELL AS BIOFILTER MEDIA FOR DENITRIFICATION OF FISH CULTURE WASTEWATER

CAGE CULTURE, OFFSHORE AQUACULTURE AND INTEGRATED MULTI-TROPHIC AQUACULTURE

Wednesday, May 27 11:30 - 17:10 Room 402

Chairs: Muki Shpigel, C. H. Kim, S. G. Jung, T. H. Kim

- 11:30 Philipp Seemann**, Matthias Sorg, Urs Dornbierer, Paul Gümpel
OFF-SHORE FISHFARMING AND ANTI-PREDATOR CAGE SYSTEMS FROM HIGH TENSILE STAINLESS STEEL WIRE WITH ENVIRONMENTALLY COMPATIBLE ANTIFOULING PROPERTIES
- 11:50 Zumilah Zainalaludin**, Jariah Masud, Tengku Aizan Hamid, Mohamed Shariff Mohamed Din
FUTURE RESEACH IN EMPOWERING VULNERABLE STAKEHOLDER GROUPS IN AQUACULTURE COMMUNITY
- 12:10 Boaz Zion**, Assaf Barki
CAN ACOUSTIC RANCHING OF FISH BECOME A VIABLE TECHNOLOGY?
- 12:30 Chris Lee**, Euihan Yoon
A COMPREHENSIVE STUDY OF COPPER ALLOY MESH IN FINFISH AQUACULTURE
- 12:50 LUNCH**
- 14:30 Cristian Cifuentes**, M. H. Kim
DYNAMIC RESPONSE OF A SPM CAGE UNDER WAVES AND CURRENTS: BALLAST AND SOLIDITY RATIO EFFECT
- 14:50 Inyeong Kwon**, Hyoyeong Lee, Sunjoo Moon, Seungsik Shin, Taeho Kim
GROWTH AND MORTALITY OF JUVENILE COMMON OCTOPUS *Octopus vulgaris* IN INDIVIDUAL AND GROUP TYPE-SHELTERS IN *IN SITU* BY FOLLOW-UP SURVEY WITH PASSIVE INTEGRATED TRANSPONDER
- 15:10 Sun Joo Moon**, Inyeong Kwon, Hyoyeong Lee, Moo-Hwan Oh, Seungsik Shin, Taeho Kim
BIOLOGICAL PERFORMANCE COMPARISON GROUP REARING SYSTEMS ACCORDING TO STOCKING DENSITY FOR SEA CUCUMBER *Apostichopus japonicus* (SELENKA) GROW-OUT IN *IN SITU* BY FOLLOW-UP SURVEY WITH VISIBLE IMPLANT ELASTOMER (VIE)
- 15:30 Young-Jin Park**
THE ABALONE'S SEA CAGE CULTURE TREND AND WOMEN'S ROLE OF THE RELATED JOB SECTOR IN JEONNAM PROVINCE, KOREA

- 15:50 Chang-Hoon Kim**, Parandavar Hossein, Kyeong-Hun Kim
POSSIBLE APPLICATION OF THE POLYCHAETE-ASSISTED INTEGRATED CULTURE FOR IMTA DEVELOPMENT

NUTRITION AND FEED

Wednesday, May 27 11:30 - 17:10 Halla Hall A

Chairs: Rebecca Lochmann, Shunsuke Koshio, Wendy Sealey, Chris Carter,
K. J. Lee, S. K. Kim, Y. M. Kim, J. Y. Bae

- 11:30 Sandamali S. Herath**, Yutaka Haga, Shuichi Satoh
IMPACTS OF DIFFERENT CORN CO-PRODUCTS ON FILLET COLOR AND GROWTH PERFORMANCE OF NILE TILAPIA *Oreochromis niloticus*
- 11:50 Sanaz Khosravi**, Samad Rahimnejad, Mikaël Herault, Vincent Fournier, Kyeong-Jun Lee
EFFECTS OF PROTEIN HYDROLYSATES SUPPLEMENTATION IN LOW-FISH MEAL DIETS ON GROWTH, INNATE IMMUNITY AND DISEASE RESISTANCE OF RED SEA BREAM *Pagrus major*
- 12:10 Joydev Maity**, Bidhan Chandra Patra
EFFECT OF FEEDING WATER FERN *Azolla pinnata* LEAF MEAL ON THE BIOENERGETICS AND PHYSIOLOGICAL CHANGES IN THE FINGERLING OF INDIAN MAJOR CARP *Labeo rohita*: A BIO-RESOURCE MANAGEMENT TECHNIQUE
- 12:30 Erlinda S. Ganzon-Naret**
EFFECTS OF INCORPORATING SWAMP CABBAGE *Ipomea aquatica* AND PAPAYA *Carica papaya* LEAF MEALS AT DIFFERENT DIETARY LEVELS OF REPLACING FISH MEAL PROTEIN IN PRACTICAL DIETS FOR SEA BASS *Lates calcarifer*
- 12:50 LUNCH**
- 14:30 Sergio Nates**, Kent Swisher
FISH MEAL ANALOGS: ENHANCEMENT OF ANIMAL BY-PRODUCT CONCENTRATES AS SUBSTITUTES FOR FISH MEAL AND FISH OIL IN AQUACULTURE FEEDS
- 14:50 Sofia Engrola**, Cláudia Aragão, Rita Teodósio, Rita Colen, Jorge Dias, Luis E. C. Conceição
TACKLING FISH MEAL REPLACEMENT WITH AN *IN VIVO* APPROACH USING TRACER NUTRIENTS

- 15:10 Thiago Soligo**, Herbert Quintero, Mario Illarramendi, Mark Newman, Carlos Lara, Michael Cremer
EVALUATION OF SOY PROTEIN CONCENTRATE AS A PARTIAL REPLACEMENT FOR FISHMEAL IN DIETS FOR SPOTTED ROSE SNAPPER *Lutjanus guttatus*
- 15:30 Hsiang Pin Lan**, Jian Zhang, Timothy O'Keefe, Michael Cremer, Juan Feng, Liwen Xu
GROWTH PERFORMANCE OF TURBOT *Scophthalmus maximus* ON EXTRUDED SOY FEED
- 15:50 Cho-Rong Lee**, Se-Jin Lim, Kyu-Tae Lee, Jeong-Dae Kim, Kyeong-Jun Lee
EFFECT OF BIOFLOCS ON GROWTH PERFORMANCE, FEED UTILIZATION AND INNATE IMMUNITY OF WHITE SHRIMP *Litopenaeus vannamei* AGAINST *Vibrio harveyi*
- 16:10 Huy Quang Nguyen**, Thiet Chu, Thuy Nguyen, Hung Pham, Ivar Lund
PARTIAL REPLACEMENT OF FISH MEAL PROTEIN BY SOYBEAN MEAL PROTEIN IN THE DIET OF JUVENILE POMPANO *Trachinotus falcatus*
- 16:30 Elsayed Younis**, Abdullah Al-quffail, Abdel-Wahab Abdel-Warith, Nasser Al-Asgah, Yousef Al-hafedh
GROWTH PERFORMANCE AND BODY COMPOSITION OF NILE TILAPIA *Oreochromis niloticus* FED DIETS CONTAINING GRADED LEVELS OF SEAWEED *Ulva lactuca*

SEAHORSE AQUACULTURE

Wednesday, May 27 11:30 - 17:10 Room 302
Chairs: Dong Zhang, Qiang (John) Lin, Hyeonho Yun

- 11:30 Dong Zhang**
SEAHORSES: MORE THINGS WE SHOULD KNOW
- 11:50 Junda Lin**, Laura King
VISUAL ONTOGENY IN THE TWO WESTERN ATLANTIC SEAHORSES: *Hippocampus erectus* AND *H. reidi*
- 12:10 Nancy Ho**, Adeljean Loong Fat Clemen Ho, G. Dan Underwood, Abbie Underwood, Dianchang Zhang, Junda Lin
A SIMPLE MOLECULAR PROTOCOL FOR THE IDENTIFICATION OF HYBRID WESTERN ATLANTIC SEAHORSES *Hippocampus erectus* AND *H. reidi* AND POTENTIAL CONSEQUENCES OF HYBRIDS FOR CONSERVATION

- 12:30 Tingting Lin**, Dong Zhang, YinFeng Xi, Xin Liu
IMMUNE PATTERN OF THE SEX-ROLE REVERSED SEAHORSE *Hippocampus erectus*, A SUPPLEMENT FOR BATEMAN'S PRINCIPLE
- 12:50 LUNCH**
- 14:30 Huixian Zhang**, Geng Qin, Yanhong Zhang, Qiang Lin
MOLECULAR CLONING AND CHARACTERIZATION OF LEPTIN IN THE LINED SEAHORSE *Hippocampus erectus*: REGULATION BY FOOD INTAKE AND FASTING CONDITIONS
- 14:50 Yongjian Xu**, Jikang Shentu, Lin He, Wei Gu, Zhanzhi Jiang
ENZYMOLYSIS POLYPEPTIDES PROCESS AND PROTEIN HYDROLYSATES' ANTIOXIDATIVE CAPACITY OF THE YELLOW SEAHORSE *Hippocampus kuda* (BLEEKER)
- 15:10 Wei Luo**, Hongyue Qu, Jingyi Li, Xin Wang, Qiang Lin
ACCURATE IDENTIFICATION OF THE YOUNG SEAHORSE (GENUS *Hippocampus*) USING CROSSING-SPECIES MICROSATELLITES
- 15:30 Kai Wang**, Feng Li, Qiang Lin
INTESTINAL MICROBIOTA OF SEAHORSES
- 15:50 Qiang Lin**, Geng Qin, Liangmin Huang
BEHAVIORAL RESPONSES OF SEAHORSE TO WATER CURRENT AND ANESTHESIA
- 16:10 Yanhong Zhang**, Liangmin Huang, Qiang Lin
POPULATION GENETIC STRUCTURE AND PHYLOGENETIC ANALYSIS OF SYNGNATHIDAE ALONG CHINA'S COASTS

WOMEN IN AQUACULTURE AND FISHERIES

Wednesday, May 27 11:30 - 17:10 Samda Hall A

Chairs: Jin Yeong Kim

- 11:30 Hye-Kyung Choa**
FOR THE PRESERVATION OF MEMORIES JEJU HAENYEO HAVE LEFT
- 11:50 Seungmok Ha**, Seok-Beom Hong, Byungyeob Kim, Seong-Cheol Kim, Sukgeun Jung
RELATIONSHIP OF SITE-SPECIFIC MAXIMUM SUSTAINABLE YIELD OF TURBAN SHELL *Batillus cornutus* WITH ALGAL STANDING STOCK BIOMASS ALONG THE COAST OF JEJU ISLAND, KOREA

- 12:10 Jin Yeong Kim**, Dong Ryul Chae, Heeyong Kim
FISHERWOMEN'S CONTRIBUTION TO THE SMALL SCALE FISHERIES IN KOREA
- 12:30 Arlene Satapornvanit**, Gladys Villacorta, Amonrat Sermwatanakul, Kanit Naksung, Kao Sochivi, Nguyen Thi Phuong Dung, Nikita Gopal, Chersdak Virapat
A PRELIMINARY ASSESSMENT OF GENDER IN AQUACULTURE IN CAMBODIA, LAO PDR, THAILAND AND VIETNAM
- 14:30 Arlene Satapornvanit**, Gladys Villacorta, Amonrat Sermwatanakul, Kanit Naksung, Kao Sochivi, Truong Hoang Minh, Nikita Gopal, Chersdak Virapat
WOMEN'S INVOLVEMENT IN SELECTED AQUACULTURE VALUE CHAINS IN CAMBODIA, THAILAND AND VIETNAM
- 14:50 Siyanbola Omitoyin**
WOMEN AND AQUACULTURE FOR HEALTHY PEOPLE, PLANET AND PROFIT IN URBAN AND PERI-URBAN COMMUNITIES IN LAGOS STATE
- 15:10 Anna Mercy**, Ambilikumar V.
SUSTAINABILITY OF WOMEN ENTREPRENEURS IN ORNAMENTAL FISH CULTURE AT KUMBALAM PANCHAYAT, ERNAKULAM DISTRICT, KERALA STATE, INDIA
- 15:30 Nantaporn Sutthi**, Gladys Ludevese Pascual, Mya Zin Oo, Katherine Hawes, Jennifer Cobcroft, Maymyat Noelwin
PANEL DISCUSSION: EXPERIENCES OF WOMEN IN THE AQUACULTURE/ FISHERIES AREA

HIGH VALUE FINFISH – SERIOLA, GROUPER, SNAPPER & TUNA

Wednesday, May 27 11:30 - 17:10 Room 401

Chairs: Sagiv Kolkovski, Jenny Cobcroft, D. H. Yoon, J. H. Yoo

OVERVIEW MARINE FISH

- 11:30 Juan Pablo Lazo**
MARINE FISH CULTURE IN MEXICO: WHERE WE STAND AND WHERE ARE WE GOING

HATCHERY/NURSERY

- 11:50 Sagiv Kolkovski**, Judith Kolkovski
HATCHERY TECHNOLOGY FOR *Seriola* sp. LARVAE – NEW DEVELOPMENTS

- 12:10 Flaven Dekoninck**, Bruno Noguerra, Thomas Camus, Adrien Rivaton
RED EMPEROR SNAPPER *Lutjanus sebae* AS A POTENTIAL CANDIDATE FOR
AQUACULTURE DEVELOPMENT IN NEW CALEDONIA: FIRST RESULTS OF
TECHNICAL FEASIBILITY STUDY
- 12:30 Ilham Ilham**, Ravi Fotedar, I Nyoman Soeyasa, Moch. Nurhudah,
Tb. Haeru Rahayu, Sinung Rahardjo
EFFECTS OF SELENIUM SUPPLEMENTATION AND TEMPERATURE ON
GROWTH AND GLUTATHIONE PEROXIDASE ACTIVITY OF JUVENILE
YELLOWTAIL KINGFISH *Seriola lalandi*
- 12:50 Luis Andre Sampaio**, Bianca Azevedo Lopez, Marcelo Borges Tesser,
Ricardo Vieira Rodrigues
EFFECTS OF ALKALINITY ON JUVENILE COBIA *Rachycentron canadum*
REARED IN LOW SALINITY
- 13:10 LUNCH**
- 14:30 Shunsuke Koshio**
OUTCOMES FROM HIGH VALUE FINFISH
- 15:10 Jeonghyeon Jo**, Tohru Moriya, Masayuki Yamada, Yutaka Haga, Shuichi Satoh,
Yuji Kamimura, Atsushi Akazawa, Hiroshi Furuhashi, Akira Itoh
DIETARY UTILITY OF FISH MEAL-BASED DIETS FOR JUVENILE PACIFIC
BLUEFIN TUNA *Thunnus orientalis*
- 15:30 Aziz Nurul Shuhada**, M. Zamri-Saad, N.Y. Nik Haiha, M. Firdaus-Nawi,
CANCEL A.R. Jolharry, A. Siti-Zahrah
BIOENCAPSULATION OF LIVE FEED WITH BACTERIAL VACCINE TO
ENHANCED DISEASE RESISTANCE IN TIGER GROUPEP *Epinephelus*
fuscoguttatus LARVAE
- 15:50 Mohd Firdaus-Nawi**, Mohd Zamri-Saad, Nik Yusoff Nik Haiha,
Mohd Ali Shaharah, Aziz Shuhada, Othman Ahmad Baihaqi,
Abdul Razak Jolharry, Abdullah Siti Zahrah
ANTIBODY RESPONSE FOLLOWING LIVE-FEED VACCINATION AGAINST
VIBRIOSIS IN TIGER GROUPEP JUVENILE
- BROODSTOCK**
- 16:10 Sufian Mustafa**, Nik Haiha N. Y.
HYBRID GROUPEP OFFER PERFORMANCE ADVANTAGE FOR MARINE
HATCHERY FARMERS

- 16:30 Ahmad Daud Om**, Safiah Jasmani, Nosriah Ismail, Sung Yeong Yik, Abol Munafi Ambok Bolong
USED OF VITELLOGENIN AS BIOMARKER FOR SEX IDENTIFICATION OF GIANT GROUPER *Epinephelus lanceolatus*

AQUAPONICS AND INTEGRATED SYSTEMS

Wednesday, May 27 14:30 - 17:10 Halla Hall B

Chairs: Tran Huy, S. H. Lee

- 14:30 Huy Tran**
AQUAPONICS – TECHNOLOGIES FOR *IN SITU* NUTRIENT MITIGATION FROM RAS: AN OVERVIEW
- 14:50 Elena Ponomareva**, Vadim A. Grigor'ev
USING RECIRCULAR SYSTEMS FOR THE JOINT CULTIVATION OF VARIOUS OBJECTS OF AQUABIOCULTURE
- 15:10 Huy Tran**
AQUAPONICS – COUPLED AND DECOUPLED SYSTEMS AND THE WATER QUALITY NEEDS OF EACH
- 15:30 Kevan L. Main**, Suzanne Boxman, Michael Nystrom, Sarina Ergas, Maya Trotz
SUSTAINABLE APPROACHES TO GROWING LOCAL SEAFOOD FOR LOCAL COMMUNITIES
- 15:30 Gennady G. Matishov**, Elena N. Ponomareva
CANCEL DEVELOPMENT PROSPECTS OF FARM AQUACULTURE IN THE SOUTHERN MACROREGION OF RUSSIA
- 15:50 Mary-Jane Thaela-Chimuka**, Tumelo Mahlangu, Ikgadimeng. Motiang, Rose-Mary Gerber
NUTRIENT DIGESTION AND EXCRETION OF POTENTIAL LAYER BREEDS TO BE USED IN INTEGRATED FISH-CUM-CHICKEN FARMING SYSTEMS IN SOUTH AFRICA
- 16:10 Jason J. Danaher**, Jeremy M. Pickens, Jeffrey L. Sibley, Jesse A. Chappell, Terrill R. Hanson, Claude E. Boyd
CULINARY HERB GROWTH RESPONSE TO LEACHATE EXITING A GEOTEXTILE BAG DEWATERING AQUACULTURE EFFLUENT

DISEASES, HISTOLOGY, DRUGS AND CHEMOTHERAPEUTICS

Wednesday, May 27 14:30 - 17:10 Samda Hall B

Chairs: K. Pani Prasad, Olivier Decamp, M. J. Oh,
K. H. Park, Woojai Lee

WEDNESDAY

- 14:30 Gias U. Ahmed**, Md. T. Hasan, Md. Ali R. Faruk, Md. K. Rahman
EFFECT OF AQUA-DRUGS AND CHEMICALS ON SHRIMP HEALTH AND PRODUCTION IN COASTAL AQUACULTURE OF BANGLADESH
- 14:50 Niti Chuchird**, Phitsanu Rorkwiree, Pajaree Jueliang, Wayoon Poonperm, Peter Ader
EFFECT OF DIETARY ORGANIC ACID AND ASTAXANTHIN ON THE TOLERANCE TO VIBRIO INFECTION IN PACIFIC WHITE SHRIMP *Litopenaeus vannamei*
- 15:10 Hua Xu**, Xiao-Ling Song, Jie Huang, Peng-Cheng Chai
DEVELOPMENT OF BIOFILM OF *Bacillus cereus* FOR ORAL IMMUNESTIMULATION OF *Litopenaeus vannamei*
- 15:30 João José Dantas Lima**, Jeroen Baeyens, Jan Anné, Tina Rogge
A NOVEL FEED ADDITIVE (PROVIFEED™NOSPOT) WITH POTENTIAL FOR CONTROLLING WHITE SPOT SYNDROME VIRUS (WSSV) OUTBREAKS
- 15:50 Jiraporn Rojtinnakorn**, Arporn Panase, Piyanuch Niamsup, Nalin Wongkattiya, Thitiporn Laoprasert
THAI HERB EXTRACTS AS ANTIFUNGAL AGENTS TO SAPROLEGNIASIS DISEASE IN AQUACULTURE
- 16:10 Soo-Yeon Im**, Hyun Woo Gil, In Bon Goo, Sang Gu Lim, Hyung Gyeon Han, Hee Jeong Kong, Bong Seok Kim, Cheol Min Ahn, In-Seok Park
ANESTHETIC EFFECTS AND PHYSIOLOGICAL RESPONSES OF CLOVE OIL, LIDOCAINE-HCL AND TRICAINA METHANESULPHONATE ON KOREAN SEAWATER SHELLFISHES
- 16:30 Simon Chung**, Chen Su, Pin-Hsi Chou, Yun-Long Tsai, Pei-Yu Lee, Hsiao-Fen Chang
RAPID, SPECIFIC, AND SENSITIVE ON-SITE DIAGNOSIS OF MICROSPORIDIAN *Enterocytozoon hepatopenaei* ON POCKET™ SYSTEM, A FIELD-DEPLOYABLE TOOL
- 16:50 D-Young Kim**, Ki-Woong Nam, Yun-Kyung Shin, Kyung-il Park
LOW OXYGEN LEVEL INDUCES ENCYSTATION OF THE KINETOLASTID FLAGELLATE *Azumiobodo hoyamushi*, THE CAUSATIVE AGENT OF SOFT TUNIC SYNDROME ASCIDIAN *Halocynthia roretzi*

BIOFLOC

Wednesday, May 27 14:30 - 17:10 Room 303

Chairs: Yoram Avnimelech, I-K Jang, S. J. Kang

- 14:30 Hoa Nguyen Van**, Toi Huynh Thanh, Le Tran Huu, Ngoc Anh Nguyen Thi
INVESTIGATING ARTEMIA CULTURE APPLIED BIO-FLOC AT DIFFERENT SALINITIES IN THE MEKONG DELTA, VIETNAM
- 14:50 In-Kwon Jang**, Su-Kyoung Kim, Hyung-Chel Seo
CULTURE TRIALS WITH THREE-PHASE BFT SYSTEM TO IMPROVE SHRIMP PRODUCTION IN GREENHOUSE-ENCLOSED SYSTEM
- 15:10 Su-Kyoung Kim**, Hyung-Chel Seo, In-Kwon Jang
EFFECTS OF BIOFLOC ON GROWTH AND IMMUNE RESPONSE OF FLESHY SHRIMP *Fenneropenaeus chinensis* AND ITS BIOFLOC FEEDING EFFICIENCIES
- 15:30 Ashraf Suloma**, Rania S. Mabroke, Azab M. Tahoun, Abd El-Naem Zidan, Osama M. El-Husseiny, Wael El-Menofy, Mohamed H. M. El-Shafiey, Hesham R. A. Mola
INVESTIGATION OF THE CONTRIBUTION OF MICROBIAL BIOFLOC TO NITROGEN REMOVAL UNDER DIFFERENT ENVIRONMENTAL CONDITIONS USING PCR-DGGE TECHNIQUE
- 15:50 Mohamad Fadjjar**, Sri Andayani, Yuni Kilawati
EFFECTS OF BIOFLOC WITH DIFFERENT CARBON SOURCES TO THE GROWTH AND SURVIVAL RATE OF GLASS EEL *Anguilla bicolor*
- 16:10 Yoram Avnimelech**
POND AERATION AND AERATORS – A SECOND THOUGHT

BARRAMUNDI, SEABASS, POMPANO AND SEABREAM

Wednesday, May 27 14:30 - 17:10 Room 301

Chairs: Péter Bársony, Guy Carton, J. H. Yoo

- 14:30 Peter Barsony**, Milan Feher, Eva Csorvasi, Zsafia Varszegi, Laszlo Stundl
THE EFFECT OF THE CHOLINE-CHLORIDE ON THE PRODUCTION PARAMETERS OF BARRAMUNDI *Lates calcarifer*
- 14:50 Michael Salini**, Giovanni Turchini, Brett Glencross
THE EFFECT OF MARINE AND NON-MARINE PHOSPHOLIPIDS IN JUVENILE BARRAMUNDI *Lates calcarifer*

- 15:10 Tien Nguyen Van**, Nguyen Vo Hoang, Hsiang Pin Lan, Levy Manalac, Lukas Manomaitis
GROWTH PERFORMANCE OF ASIAN SEABASS *Lates calcarifer* FED SOY OPTIMIZED FEED IN BRACKISHWATER PONDS IN THAI BINH, VIETNAM
- 15:30 Nguyen Vo Hoang**, Hsiang Pin Lan, Levy Loreto Manalac, Lukas Manomaitis
ASIAN SEA BASS GROWTH PERFORMANCE USING A CAGE-IN-POND PRODUCTION APPROACH WITH SOY-OPTIMIZED DIETS IN A FRESH WATER ENVIRONMENT IN VIETNAM
- 15:50 Luke Roy**, Jeonghwan Park, Nilima Renukdas, Trevor Luna
THE EFFECT OF STOCKING DENSITY ON GROWTH PERFORMANCE OF LARGEMOUTH BASS FINGERLINGS IN A RECIRCULATING SYSTEM
- 16:10 Ninh Nguyen Huu**, Thuy Ngo Thi Thu, Phuong Pham Duc, Niels Svennevig
STUDIES ON POMPANO FOR MARINE FISH FARMING

THURSDAY, May 28

EDUCATION, EXTENSION, TECHNOLOGY TRANSFER AND WORKFORCE DEVELOPMENT

Thursday, May 28 9:00 - 10:40 Room 301

Chairs: Katherine Hawes, J. Y. Kim

- 9:00 Matthew Recsetar**, Luke Roy, Carole Engle
EXTENSION METHODOLOGY: EFFECTIVE TRANSFER OF INFORMATION TO AQUACULTURE PRODUCERS
- 9:20 John Bostock**
OPEN EDUCATIONAL RESOURCES IN AQUACULTURE EDUCATION AND TRAINING
- 9:40 Jyoti Sharma**, Alka Parashar
A STUDY OF AWARENESS AMONG FISHERMEN COMMUNITIES IN CENTRAL BELT OF RIVER NARMADA, MADHYA PRADESH, INDIA
- 10:00 Casiano H. Choresca Jr.**, Melchor M. Tayamen, Ma. Theresa T. Oclos, Ma. Jodecel C. Danting
OPERATIONALIZATION OF THE FISHERIES BIOTECHNOLOGY CENTER IN THE PHILIPPINES

INNOVATION AND HIGH TECHS

Thursday, May 28 9:00 - 10:40 Room 302

Chairs: Reginald Blalock, Woojai Lee

- 9:00 Saji George**, Seng Eng Khuan
DEVELOPING NANOTHERAPEUTICS FOR AQUACULTURE APPLICATIONS
- 9:20 Chong Lee**, Barry Volson, Bouhee Kang, Panayotis Karayannakidis, Elizabeth Gamez, Jonas Miller, David Bengtson, William Wolters, Gary Burr, Rick Barrows
HYDROLYSATES FROM SCALLOP AND SQUID PROCESSING BYPRODUCTS AS SPECIALTY AQUAFED INGREDIENTS
- 9:40 Olukayode Sogbesan**, Adiaha Alda Alex Ugwumba
GROWTH PERFORMANCE, NUTRIENT UTILIZATION AND COST BENEFIT ANALYSIS OF *Heterobranchus longifilis* FED BOILED TADPOLE MEAL DIETS

BIOTECHNOLOGY

Thursday, May 28 9:00 - 10:40 Room 303

Chairs: Juliette Delabbio, Insoo Kong

- 9:00 Suwalee Ma-Anun**
CHITOSAN NANOPARTICLES FOR NUCLEOTIDE DELIVERY IN AQUACULTURE
- 9:20 Juliette Delabbio**
INDOOR LED (Light-Emitting Diode) LIGHTING TO ENHANCE FISH PRODUCTION
- 9:40 A. Abinawanto**, Z. Zuraida, R. Lestari
THE COMBINATION EFFECT OF 5% OF METHANOL AND SKIM MILK ON SPERMATOOZOA QUALITY OF JAVA BARB *Barbonymus gonionotus* 24 HOURS AFTER SUB-ZERO FREEZING
- 10:00 Jiquan Zhang**, Jing Wang, Fengge Song, Tianshu Gui, Jianhai Xiang
FUNCTIONAL DIFFERENCE OF CHITINASES FROM *Exopalaemon carinicauda*

OCTOPUS AND CUTTLEFISH

Thursday, May 28 9:00 - 10:40 Room 402

Chairs: Nicole Watts, S. D. Choi

- 9:00 Nicole Watts**, Adva Mori, Sagiv Kolkovski
Octopus tetricus PARALARVAE REARING IN WESTERN AUSTRALIA
- 9:20 Adva Mori**, Nicole Watts, Justin King, Mark Natale, Sagiv Kolkovski
Octopus tetricus RANCHING – DEVELOPMENT OF COMMERCIAL SYSTEMS AND PROTOCOLS

FINFISH HATCHERY, NURSERY, BROODSTOCK AND LARVAE MANAGEMENT

Thursday, May 28 9:00 - 12:50 Room 401

Chairs: Michael Schwarz, Stewart Fielder, O. N. Kwon

- 9:00 Tina M. Rogge**, Luc Roef, Jorien Fret, Mark Michiels
MICROALGAE FROM THE PROVIAPT CLOSED PHOTOBIOREACTOR SYSTEM FOR AQUACULTURE
- 9:20 Sulaeman**, Ravi Fotedar, Andi Parenrengi
FEMINISATION OF SILVER PERCH *Bidyanus bidyanus* (MITCHELL, 1838) BY ORAL ADMINISTRATION OF ESTRADIOL-17 β CONTAINING DIET
- 9:40 Radoslaw Kowalski**, Beata I. Cejko, Beata Sarosiek, Sylwia Judycka, Katarzyna Dryl, Ziemowit Pirtan, Jan Glogowski
MASS PRODUCTION OF TRIPLOIDS HYBRIDS BETWEEN RAINBOW TROUT AND TWO CHARR SPECIES WITH USE OF CRYOPRESERVED SEMEN
- 10:00 Matthew Wylie**, P. Mark Lokman, Abigail Elizur, Yonathan Zohar, Alvin N. Setiawan, Glen Irvine, Jane E. Symonds
EFFICACY OF GONADOTROPIN-RELEASING HORMONE ANALOGUE IMPLANTS ON SPAWNING OF F1 WRECKFISH (HAPUKU) *Polyprion oxygeneios*
- 10:20 BREAK**
- 11:10 Sylvie Dumas**, Mauricio Contreras-Olguín, Renato Peña, Iram Oscar Zavala Leal, Laura Flores-Montijo, Saúl I. León-Valencia, Margarita Rangel-Durán, Ivette Moguel-Hernández, Iván Hernández-Alarcón
THE LARVICULTURE OF PACIFIC RED SNAPPER *Lutjanus peru*
- 11:30 Thumronk Amornsakun**, Pornpanom Pomkaew, Anuar Hassan
SOME ASPECTS IN EARLY LIFE STAGE OF SWAMP EEL LARVAE *Monopterus albus*

THURSDAY

TILAPIA

Thursday, May 28 9:00 - 12:50 Samda Hall A
Chairs: Kevin Fitzsimmons, Fasil Taddese, J. Y. Lee

- 9:00 K. Fitzsimmons**
2015 – SUPPLY AND DEMAND IN TILAPIA MARKETS
- 9:20 R.S.N. Janjua**, Kevin Fitzsimmons
DEVELOPMENT OF TILAPIA AQUACULTURE INDUSTRY IN PAKISTAN
- 9:40 Sugantham Felix**, Antony Jesu Prabhu P., Cheryl Antony, Gopalakannan A., Rajaram R.
STUDIES ON NURSERY REARING OF GENETICALLY IMPROVED FARMED TILAPIA (GIFT) IN BIO-SECURED RACEWAY SYSTEMS IN INDIA
- 10:00 Tereso Abella**, Jeric Espiritu, Maribeth Viernes, Janine Samelo, Ravelina Velasco, Myrna Umagat, Rhanney Gonzales
PHYTOANDROGENIC SOURCES FOR SEX INVERSION OF NILE TILAPIA *Oreochromis niloticus*
- 10:20 Emmanuel M. Vera Cruz**, Eddie Boy T. Jimenez, Bethzaida M. Apongol
SEED PRODUCTION IN NILE TILAPIA *Oreochromis niloticus* L. AS INFLUENCED BY THE BREEDER'S BEHAVIORAL STRESS RESPONSE DURING ISOLATION
- 10:40 BREAK**
- 11:10 Fasil Taddese**, Yuri Jo, Jeongwhui Jong, Seunghan Lee, Hyeonho Yun, Sungchul Bai
EVALUATION OF CATFISH *Pangasius hypophthalmus* BY PRODUCT MEAL ON GROWTH PERFORMANCE AND BIOCHEMICAL PARAMETERS OF NILE TILAPIA
- 11:30 Udom Sarachat**, Chanagun Chitmanat, Krasin Hunsapruerke, Jiraporn Rojtinnakorn
CLONING OF RED TILAPIA PATHUMTHANEE 1 BY GYNOGENESIS AND ANDROGENESIS FOR BREEDING MANAGEMENT WITH NON-HORMONE STRATEGY
- 11:50 Gede S. Sumiarsa**, Lukas Manomaitis, Mark Newman
GROWTH OF RED TILAPIA *Oreochromis niloticus* CULTURED IN LOW VOLUME HIGH DENSITY AND IN TRADITIONAL CAGES FED WITH SOY-OPTIMIZED FEED IN GAJAH MUNGKUR RESERVOIR, CENTRAL JAVA, INDONESIA

THURSDAY

BREEDING AND GENETICS

Thursday, May 28 9:00 - 16:30 Halla Hall B

Chairs: Nicholas Robinson, J. H. Lee, B. S. Lim

- 9:00 Morten Rye**, Jørn Thodesen, Harry Johansen, Terje Refstie
SELECTIVE BREEDING OF TILAPIAS – KEY RESULTS FROM THE PROGIFT (CHINA) AND MANIT FARM (THAILAND) PROGRAMS
- 9:40 Zexia Gao**, Weimin Wang
THE PROGRESS ON SELECTIVE BREEDING PROGRAM FOR BLUNT SNOUT BREAM
- 10:00 Graham C. Mair**, Devin Bartley, Ruth Garcia-Gomez, Matthias Halwart, Anne Kathrin Hett, Roger S. V. Pullin
A STATE OF THE WORLD REPORT ON AQUATIC GENETIC RESOURCES – AN AMBITIOUS PROJECT COMING TO FRUITION
- 10:20 Hyun Woo Gil**, In Bon Goo, In-Seok Park, Bong-Seok Kim, Hee Jeong Kong, Hyung Soo Kim, Cheul Min An, Sang-Gu Lim, Chi Hong Kim
CYTOGENETIC ANALYSIS OF DIPLOID, TRIPLOID AND TETRAPLOID IN KOREAN ROSE BITTERLING *Rhodeus uyekii*
- 10:40 BREAK**
- 11:10 Song-Qian Huang**, Xian-Chang Tian, Xiao-Juan Cao, Wei-Min Wang
TETRAPLOIDIZATION AND DIPLOIDIZATION OF WILD LOACH *Misgurnus anguillicaudatus* IN CHINA, REVEALED BY COLD SHOCK AND GYNOGENESIS
- 11:30 Xiao-Juan Cao**, Xian-Chang Tian, Song-Qian Huang, Xiu-Wen Xu, Wei-Min Wang
ABERRANT MEIOSES IN HYBRID PROGENY PRODUCED BY NATURAL TETRAPLOID LOACH *Misgurnus anguillicaudatus* ♀ AND NATURAL *Paramisgurnus dabryanus* ♂
- 11:50 Natalia Belkova**, Lubov Sukhanova, Tuyana Sidorova
CULTIVATION OF COREGONID FISH AND THEIR F1 HYBRIDS: COMPARISON GUT MICROBIOME OF FINGERLINGS
- 12:10 Xiu-Wen Xu**, Xiao-Juan Cao, Song-Qian Huang, Chuan-Shu Liu
COMPARISON OF GROWTH AND MALONDIALDEHYDE OF *Misgurnus*, *Paramisgurnus* AND THEIR HYBRIDIZATIONS
- 12:30 Gen Hua Yue**, Yubang Shen, Gui Hong Fu, Feng Liu
CHARACTERIZATION OF THE DUODENASE-1 GENE AND ITS ASSOCIATIONS WITH RESISTANCE TO *Streptococcus agalactiae* AND GROWTH IN TILAPIA

THURSDAY

12:50 LUNCH

14:30 Wei-Wei Luo, Xian-Chang Tian, Xiao-Juan Cao
TRANSCRIPTOME PROFILE ANALYSES OF OVARIAN TISSUES FROM DIPLOID AND TETRAPLOID LOACHES *Misgurnus anguillicaudatus* AND DEVELOPMENT OF SSR MARKERS FOR THE LOACHES WITH DIFFERENT PLOIDY

14:50 Nick Robinson, Matthew Baranski, Kanta Das Mahapatra, Jatindra Saha, Sweta Das, Jashobanta Mishra, Paramananda Das, Matthew Kent, Mariann Arnyasi, Pramoda Sahoo
DETECTION OF QTL ASSOCIATED WITH RESISTANCE TO *Aeromonas hydrophila* IN ROHU CARP *Labeo rohita*

15:10 Gao-Feng Qiu, Liang-Wei Xiong, Zhi-Qiang Liu, Yin-Long Yan, Hong Shen
A FIRST GENERATION MICROSATELLITE-BASED LINKAGE MAP OF CHINESE MITTEN CRAB *Eriocheir sinensis* AND ITS APPLICATION IN QUANTITATIVE TRAIT LOCI (QTL) DETECTION

15:30 Meesun Kim, Woo-Jai Lee
DEVELOPMENT OF A GOLDEN OLIVE FLOUNDER *Paralichthys olivaceus* STRAIN THROUGH QUANTITATIVE AND MOLECULAR APPROACHES

15:50 E Hu, John Buchanan
STREAMLINE BIOTECHNOLOGIES FOR MODERN AQUACULTURE: VIRTUAL GENETIC BREEDING FOR FEASIBILITY ANALYSIS

16:10 Khalid Abbas, Sadia Arshad
MICROSATELLITE DIVERSITY OF *Cirrhinus mrigala* IN HEADWORKS POPULATIONS OF PUNJAB, PAKISTAN

NUTRITION AND FEED – CONTINUED

Thursday, May 28 9:00 - 16:30 Halla Hall A
Chairs: Ei Lin Ooi, K. J. Lee, S. K. Kim, Y. M. Kim, J. Y. Bae

9:00 Alexander Carton, B. Jones, M. Jago, I. Pirozzi
ADDING FLAVOUR COMPLEXITY TO FRESHWATER FARMED FISH THROUGH DIETARY MANIPULATION

9:20 Md. Sakhawat Hossain, Shunsuke Koshio, Manabu Ishikawa, Saichiro Yokoyama
DIETARY NUCLEOTIDE ADMINISTRATION INFLUENCES GROWTH, IMMUNE RESPONSES AND STRESS RESISTANCE OF JUVENILE RED SEA BREAM *Pagrus major*

- 9:40** **Min-Gi Kim**, Guillaume Reste, Sangmin Han, Kyeong-Jun Lee
EFFECTS OF DIETARY SUPPLEMENTATION OF AQUAVIANCE ON GROWTH PERFORMANCE, FEED UTILIZATION AND INNATE IMMUNITY OF JUVENILE OLIVE FLOUNDER *Paralichthys olivaceus*
- 10:00** **Mallika Supa-aksorn**, Supaluck Rittiplang, Sudaporn Tongsir, Prachaub Chaibu, Jiraporn Rojtinnakron
EFFICACY OF GARLIC EXTRACT ENHANCING GROWTH PERFORMANCE IN SAND GOBY *Oxyeleotris marmoratus*
- 10:20** **Orapint Jintasataporn**, Srinoy Chumkam, Natchanok Amornthewaphat, Oratai Jintasataporn
ENHANCING ASIAN SEABASS *Lates calcarifer* GROWTH PERFORMANCE BY PHYTASE AND XYLANASE
- 10:40** **BREAK**
- 11:10** **Orapint Jintasataporn**, Siti-Ariza Aripin
EFFICACY OF ZINC AMINO ACID COMPLEX (AvailaZn®) ON ENHANCING WALKING CATFISH *Clarias macrocephalus* FEMALE BROODSTOCK FIRST SEXUAL MATURATION
- 11:30** **M A Kabir Chowdhury**, Nicolas Isidori, Do Thi Thanh Huong
PROTEASE IMPROVES GROWTH AND ECONOMICAL PERFORMANCE OF COMMON SNAKEHEAD *Channa striatus* IN VIETNAM
- 11:50** **Dhanapong Sangsue**
SUPPLEMENTATION OF L-LYSINE AND DL-METHIONINE TO IMPROVE NUTRITIONAL VALUE OF LOW FISHMEAL DIETS FOR NILE TILAPIA FINGERLINGS
- 12:10** **Alberto J.P. Nunes**, Felipe Façanha, Hassan Sabry-Neto, Nils Aas, Sigve Nordrum
LOW INCLUSIONS OF KRILL MEAL CAN REPLACE DIETARY CHOLESTEROL IN DIETS FOR JUVENILES OF THE WHITE SHRIMP *Litopenaeus vannamei*
- 12:30** **Md Mostafizur Rahman**, Jin Choi, Kang-Woong Kim, Sang-Min Lee
APPARENT DRY MATTER, PROTEIN, ENERGY AND ESSENTIAL AMINO ACID DIGESTIBILITY OF SELECTED ANIMAL ORIGIN FEED INGREDIENTS FOR GROWER FLOUNDER *Paralichthys olivaceus*
- 12:50** **LUNCH**

- 14:30 Yu-Hung Lin**, Allen Ming-Hsun Wu
STIMULATING PROTEIN SPARING IN TILAPIA THROUGH DIGESTIVE/
METABOLIC ENHANCEMENT
- 14:50 Mahmoud Dawood**, Shunsuke Koshio, Manabu Ishikawa, Saichiro Yokoyama
EFFICIENCY OF HEAT-KILLED *Lactobacillus plantarum* SUPPLEMENTAL DIETS
ON RED SEA BREAM *Pagrus major*
- 15:10 Luis Conceição**, Tomé Silva, Jorge Dias
A COMPUTATIONAL TOOL TO SIMULATE GROWTH AND BIOCHEMICAL
COMPOSITION OF FISH WHEN FED DIFFERENT FEED FORMULATIONS
- 15:30 Lukas Manomaitis**, Dominique Bureau, Pradeep Liyanamana, Timothy Moore
THE ASIAN AQUACULTURE FEED FORMULATION DATABASE (AAFFD):
THE FIRST STANDARDIZED, PUBLICLY AVAILABLE AQUACULTURE FEED
FORMULATION DATABASE
- 15:50 Levy Loreto L. Manalac**, Mark W. Newman, Lukas Manomaitis,
Relicardo M. Coloso, Westly R. Rosario
THE UNITED STATES SOYBEAN EXPORT COUNCIL (USSEC) SOY IN
AQUACULTURE PROGRAM'S WORK ON IMPROVEMENT OF THE PHILIPPINE
MILKFISH *Chanos chanos* INDUSTRY THROUGH BETTER FEED AND FEEDING
APPROACHES
- 16:10 Josephine D. Misieng**, Mohd S. Kamarudin, Che R. Saad
PROXIMATE COMPOSITION AND FATTY ACID PROFILE OF SELECTED
INDIGENOUS RIVERINE FRUITS COMMONLY CONSUMED BY MALAYSIAN
MAHSEER *Tor tambroides*

DISEASES, HISTOLOGY, DRUGS AND CHEMOTHERAPEUTICS – CONTINUED

Thursday, May 28 9:00 - 16:30 Samda Hall B

Chairs: K. Pani Prasad, Olivier Decamp, M. J. Oh, K. H. Park, Woojai Lee

- 9:00** **Sung-Hyun Kim**, Shamila Yusuff, Vikram N. Vakharia, Øystein Evensen
L PROTEIN DETERMINES THE TEMPERATURE SENSITIVITY *IN VITRO* OF TWO STRAINS OF VIRAL HEMORRHAGIC SEPTICEMIA VIRUS (VHSV) GENOTYPE IV
- 9:20** **Seung-Hyeon Kim**, Ki-Woong Nam, Yun-Kyung Shin, Kyung-Il Park
SEASONAL VARIATION IN KINETOPLASTID PARASITE *Azumiobodo hoyamushi* INFECTION IN BENTHIC ORGANISMS ON THE SOUTHERN COAST OF KOREA
- 9:40** **Suparat Taengchaiyaphum**, San Ching, Kallaya Sritunyalucksana-Dangtip, Siripong Thitamadee, Ron L. Cravens, Fang Chi
EVALUATION OF CALIBRIN®-Z AGAINST *Vibrio parahaemolyticus* TOXINS THAT CAUSE EARLY MORTALITY SYNDROME EMS IN WHITE SHRIMP *Litopenaeus vannamei*
- 10:00** **Natthinee Munkongwongsiri**, Niti Chuchird, Chalor Limsuwan
EFFECTS OF POSTLARVAL QUALITY ON THE OCCURRENCE OF EARLY MORTALITY SYNDROME IN FARM-RAISED PACIFIC WHITE SHRIMP *Litopenaeus vannamei* IN THAILAND
- 10:20** **Tae Ho Lee**, Hyun Woo Gil, In-Seok Park
ANESTHETIC AND PHYSIOLOGICAL EFFECT OF CLOVE OIL AND LIDOCAINE-HCL ON THE GRASS PUFFER *Takifugu niphobles*
- 10:20** **BREAK**
- 11:10** **Tirawat Rairat**, Niti Chuchird, Chalor Limsuwan, Thawatchai Poolsawat
EFFECT OF *Macleaya cordata* EXTRACT ON PREVENTION OF *Vibrio harveyi* INFECTION IN PACIFIC WHITE SHRIMP *Litopenaeus vannamei*
- 11:30** **Pajaree Jueliang**, Chalor Limsuwan, Niti Chuchird, Pornlerd Chanratchakool
EFFECTS OF PROBIOTICS ON GROWTH, SURVIVAL, TOTAL *Vibrio* spp. IN INTESTINE AND SURVIVAL RATE AFTER CHALLENGE WITH *V. harveyi* OF PACIFIC WHITE SHRIMP *Litopenaeus vannamei* REARING
- 11:50** **Muhammad Muhammad**, Jeffrey M. Lotz
PREVALENCE AND INFECTIVITY OF WHITE SPOT SYNDROME VIRUS IN THE DAGGERBLADE GRASS SHRIMP *Palaemonetes pugio*
- 12:10** **Wansadaj Jaroenram**, Jennifer Elliman, Leigh Owens
ONE BASE PAIR DELETION IS ASSOCIATED WITH REDUCTION OF VIRULENCE IN AUSTRALIAN *Penaeus stylirostris* DENSOVIRUS

- 12:30** **Gias U. Ahmed**, Md. Ali R. Faruk, M. Mahfujul Haque, Neaz A. Hasan, IKeita Kajiwara, Sonaton K. Ghosh, Rajib Saha
TESTING EFFICACY OF STIMUVITS ON PANGASIUS *Pangasianodon hypophthalmus* CULTURE IN BANGLADESH
- 12:50** **LUNCH**
- 14:30** **Dung Tu**, Hoa Tran, Thy Dang, Jeff Davidson, Larry Hammell, Annette Boerlage
COMMON DISEASES IN GROW OUT STAGE OF RED TILAPIA CULTURED IN THE MEKONG DELTA, VIETNAM
- 14:50** **Young Ghan Cho**, Hyun-Sil Kang, Hyun-Ki Hong, Kyung-Il Park, Kwang-Sik Choi
SEQUENCE POLYMORPHISM IN ITS (INTERNAL TRANSCRIBED SPACER) AND 18S RDNA OF *Perkinsus olsenii* ISOLATES FROM MANILA CLAM *Ruditapes philippinarum* IN KOREAN WATER
- 15:10** **Ki-Woong Nam**, Yun-Kyung Shin, Kyung-il Park
TEMPERATURE-DEPENDENT DEVELOPMENT OF THE SOFT TUNIC SYNDROME IN THE ASCIDIAN *Halocynthia roretzi*
- 15:30** **Abdul Razak Mohd-Jolharry**, N.Y. Nik Haiha, M. Zamri-Saad, A. Siti Zahrah, M. Nur Nazifah
CHARACTERIZATION OF THE OUTER MEMBRANE PROTEIN (OMP) OF *Vibrio alginolyticus* AND *Vibrio vulnificus* ISOLATED FROM DISEASED GROUPER *Ephinephelus* sp.
- 15:50** **K. Pani Prasad**
NANOTECHNOLOGY IN FISH HEALTH MANAGEMENT
- 16:10** **Gonçalo A. Santos**, R. Gonçalves, Pedro Encarnaçao
NATURAL GROWTH PROMOTERS ARE A SUSTAINABLE ALTERNATIVE TO ANTIBIOTIC GROWTH PROMOTERS IN SHRIMP CULTURE

CRUSTACEANS

Thursday, May 28 14:30 - 16:30 Room 402

Chairs: Emilia T. Quinitio, Quinn Fitzgibbon, Cedric Simon, S. K. Kim

- 14:30** **Quinn Fitzgibbon**, Cedric Simon, Greg Smith, Chris Carter, Stephen Battaglione
RECENT ADVANCES IN THE LARVAL REARING AND PHYSIOLOGICAL UNDERSTANDING OF SPINY LOBSTER *Sagmariasus verreauxi*
- 14:50** **Seohui Choo**, Meyong il Kim, Sang-Man Cho
PNA-CLAMPING PCR FOR RARE SYMBIONT GENE DETECTION IN SWIMMING CRAB *Portunus trituberculatus*

- 15:10 Kumudu Radampola Gamage**, Rajeev Emiliyanpillai
MUD CRAB *Scylla serrata* FATTENING IN CAGES: EFFECT OF BODY SIZE AND STOCKING DENSITY ON PRODUCTION PERFORMANCE
- 15:30 Cedric Simon**, Quinn Fitzgibbon, Chris Carter, Stephen Battaglone
NON-INVASIVE NUTRITIONAL CONDITION ASSESSMENT IN JUVENILE SPINY LOBSTERS *Sagmariasus verreauxi*
- 15:50 Munuswamy Natesan**, Valentina Claudet, Selvakumar Narasimman
FERTILITY POTENTIAL OF CRYOPRESERVED SPERM OF GIANT FRESHWATER PRAWN *Macrobrachium rosenbergii*
- 16:10 Maria Rio Abdon Naguit**
LYING-IN HATCHERY: A STRATEGY IN ENHANCING *Portunus* AND *Scylla* spp. POPULATIONS IN MURCIELAGOS BAY, PHILIPPINES

FOOD SAFETY, INSPECTIONS AND AUDITS

Thursday, May 28 11:10 - 16:30 Room 301

Chairs: Juan L. Silva, Balunkeswar Nayak, Brett Koonse, Taejo Kim, Sang-Do Ha

- 11:10 Sang-Do Ha**
MICROBIOLOGICAL HAZARDS ON SEAFOOD – BACTERIAL BIOFILM, VIRUSES, AND PARASITES
- 11:30 Juan Silva**, Taejo Kim, Brett Koonse, Sumate Tantratian
CAUSES AND SOLUTIONS TO IMPORT ALERTS AND DETENTIONS OF FOOD PRODUCTS FROM ASIA
- 11:50 Bipin Vaidya**, Se-Young Cho, Joseph Kwon, Keun Sik Baik, Hyeun-Jong Bae, Myung-Joo Oh, Duwoon Kim
INTEGRATED OMICS APPROACH FOR THE ELUCIDATION OF DEFENSE MECHANISM AGAINST VIRAL HEMORRHAGIC SEPTICEMIA VIRUS INFECTION
- 12:10 Taejo Kim**, Angelo DePaola, Jessica Jones, Juan Silva
A FIELD-APPLICABLE DETECTION KIT FOR *Vibrio vulnificus* IN OYSTERS
- 12:30 LUNCH**
- 14:30 Balunkeswar Nayak**, Lasekan Adeseye O.
EFFECTS OF TEMPERATURE AND PRESSURE ON THE IMMUNOREACTIVITY OF BLACK TIGER SHRIMP *Penaeus monodon* MAJOR ALLERGEN

- 14:50 Juan Silva**, Taejo Kim, Sumate Tantratian
POSSIBLE INTERVENTION METHODS FOR DECREASING INCIDENCE OF PATHOGENS ON AQUACULTURE SHRIMP AND FISH
- 15:10 Ranee Surakarnkul**, Pakorn Unprasert, Juan Silva
OZONE ENHANCES QUALITY AND SHELF LIFE OF DRIED *Trichogaster pectoralis*

PLANT BASED AQUAFEEDS

Thursday, May 28 11:10 - 16:30 Room 302

Chairs: Maz Herriman, Jon Wood, D. H. Yoon

- 11:10 Wai Chuen Choi**, Yin Sze Lim, Tim Parr, Jonathan Wood
DETERMINATION OF THE ANTI-NUTRITIONAL FACTORS PRESENT IN UNDERUTILISED LEGUMES
- 11:30 Marcus Kenny**, Ruben Garcia-Gonzalez, Biswamitra Patro, Ronald W. Hardy
LEMNA PROTEIN CONCENTRATE SUBSTITUTES FOR FISHMEAL IN TILAPIA DIETS
- 11:50 Philippe Sourd**, Vincent Fournier, Mikael Herault
COMBINING MARINE HYDROLYSATES ASSETS FOR BETTER FEED PERFORMANCES AND SUSTAINABLE FISH MEAL REPLACEMENT ALL ALONG THE PRODUCTION CYCLE
- 11:50 LUNCH**
- 14:30 Ivan Chiew**, Yin Sze Lim, Andrew Salter, Jonathan Wood
THE EFFECTS OF RESISTANT STARCH FROM UNDERUTILISED LEGUMES ON THE GROWTH OF PROBIOTIC *Weisella cibaria* ISOLATED FROM BARRAMUNDI *Lates calcarifer*
- 14:50 Fabio Soller**
PIGMENTATION IMPACT OF CORN PROTEIN CONCENTRATE IN ANIMAL FEED AND FINAL PRODUCT
- 15:10 Olukayode Sogbesan**, B.A. Adedeji, S.D. Allison, T.M. Ekundayo
EVALUATION OF NUTRIENT, FUNGI ISOLATES AND PHYTOCHEMICAL COMPOSITIONS OF SOLID STATE FERMENTED VELVET BEAN *Mucuna pruriens* AS PROTEIN SOURCE IN FISH DIET

CATFISH AND PANGASIUS

Thursday, May 28 14:30 - 16:30 Room 303

Chairs: Allen Wu, Y. J. Jeon

- 14:30** **May Myat Noe Lwin**, Aubrey G. Winbaw, Levy L. Mañalac, Lukas Manomaitis
GROW-OUT PRODUCTION OF *Pangasius hypophthalmus* IN PONDS USING
IMPROVED PRODUCTION AND FEED APPROACHES IN MYANMAR
- 14:50** **Benjawon Muanphet**, Doungporn Amornlerdpison, Jiraporn Rojtinnakorn,
Kriangsak Mengumphan
POLYPOIDY INDUCTION BY NON-CHEMICAL TECHNIQUE IN SIAM BEUK,
A HYBRID *Pangasianodon* CATFISH
- 15:10** **Hung Le Thanh**, Thanh Binh Vo Thi, Peter Ader, Wayoon Poonperm
EFFECTS OF PHYTASE AND ACIDIFIER SUPPLEMENTATION ON GROWTH AND
FEED UTILIZATION OF TRA CATFISH *Pangasianodonhypophthalmus*
- 15:30** **Mohammad Lokman Ali**, M. A. Wahab, Russell Borski, Shahroz M. Haque
DEVELOPMENT OF PANGASIUS CATFISH *Pangasius hypophthalmus* CULTURE
TECHNOLOGY IN HYPOSALINE WATERS OF SOUTHERN BANGLADESH

EELS

Thursday, May 28 14:30 - 16:30 Samda Hall A

Chairs: Paul Liew, S. K. Kim, Tae Won Lee

- 14:30** **Shin-Kwon Kim**, Dae-Jung Kim, Bae-Ik Lee, Nam-Sil Lee
ARTIFICIAL PRODUCTION RESEARCH OF GLASS EEL IN KOREA
- 14:50** **Ma. Theresa T. Oclos**, Apolinario V. Yambot
MOLECULAR IDENTIFICATION OF GLASS EELS *Anguilla* spp. IN CAGAYAN
PROVINCE, PHILIPPINES INFERRED FROM MITOCHONDRIAL DNA USING
CO1 AND CYT-B REGIONS
- 15:10** **Erfan Shahkar**, Hyeonho Yun, Dae-Jung Kim, Shin-Kwon Kim, Bae ik Lee,
Sungchul C. Bai
EFFECTS OF DIETARY ARACHIDONIC ACID LEVELS ON GROWTH, TISSUE
FATTY ACID CONCENTRATION, HEMATOLOGY AND NON-SPECIFIC IMMUNE
RESPONSE IN BROODSTOCK JAPANESE EEL *Anguilla japonica*

RESERVOIR-BASED, POND AQUACULTURE AND POLYCULTURE

Thursday, May 28 14:30 - 16:30 Room 401

Chairs: Patricia Abelin, C. H. Kim

- 14:30 David Bengtson**, Francis Murray, Mukhlis Kamal, Desyana Cut
MODELING OF AQUACULTURE CARRYING CAPACITY IN INDONESIAN LAKES AND RESERVOIRS
- 14:50 Eleonor A. Tendencia**, Eliseo B. Coniza
POND MANAGEMENT SCHEME TO MITIGATE THE EFFECT OF DISEASES ON CULTURED *Penaeus monodon*
- 15:10 Subrata Mondal**, Abdul Wahab
THE POTENTIAL FOR POLYCULTURE OF CARPS AND NUTRIENT-RICH MOLA AND DARKINA IN RICE-FIELDS FOR ECONOMIC AND NUTRITIONAL BENEFITS
- 15:30 Norulhuda Mohamed Ramli**, Fatimah M. Yusoff, MCJ Verdegem, Mohamed Shariff, JAJ Verreth
AMMONIUM AND NITRATE UPTAKE BY FRESH WATER PERIPHYTIC MICROALGA IMMOBILIZED IN ALGINATE BEADS
- 15:50 Anna Mercy**, Ashamol Antony
SEDIMENT CHARACTERISTICS OF POKKALI FIELDS DURING ROTATIONAL CULTIVATION OF POKKALI AND SHRIMP AT KADAMAKKUDI, ERNAKULAM, INDIA

FRIDAY

FRIDAY, May 29

AQUACULTURE IN CHINA

Friday, May 29 9:00 - 10:40 Room 303

Chairs: Kangsen Mai, Wang Qingyin

- 9:00 Qingyin Wang**
WHAT SHOULD WE LEARN FROM THE DEVELOPMENTAL HISTORY OF *Fenneropenaeus chinensis* FARMING INDUSTRY IN CHINA
- 9:20 Rodney Missen**, Gerard Adam, Wil Conn
INCREASING AQUACULTURE PRODUCTIVITY AND PROFIT THROUGH UTILISATION OF RAS ORIENTATED SYSTEMS – A CHINESE PERSPECTIVE

SHRIMP FEEDING AND NUTRITION

Friday, May 29 9:00 - 12:30 Halla Hall A
Chairs: Farshad Shishehchian, I. K. Jang, J. D. Kim

- 9:00 Steven Blezinger**, Francisco Olbrich, Kip Karges, Bob Hill, Anant Bharadwaj, George Chamberlain
REDUCED DEPENDENCE ON FISH MEAL IN SHRIMP FEEDS WITH USE OF FEED CONCENTRATE
- 9:20 Arlyn Mandas**, Consuelo De Pedro, Konrad Dabrowski
EFFECTS OF VARIOUS MIXED-FEEDING SCHEDULES ON THE GROWTH PERFORMANCE OF PACIFIC WHITE SHRIMP *Litopenaeus vannamei* JUVENILES
- 9:40 Soohwan Kim**, Chorong Lee, Kyunghoon Chang, Junyoung Bae, Kyeong-Jun Lee
EVALUATION OF SOYTIDE, A FERMENTED SOYBEAN MEAL, AS A PLANT PROTEIN SOURCE IN DIETS FOR WHITE SHRIMP *Litopenaeus vannamei*
- 10:00 Kjetil Berge**, Sigve Nordrum, Arul Victor Suresh, Jintataporn Orapint
EVALUATION OF KRILL MEAL AS REPLACEMENT OF FISH MEAL IN WHITE SHRIMP *Litopenaeus vannamei* DIETS
- 10:20 Hataitip Niyamosatha**, Niti Chuchird, Susanne Kirwan, Andreas Lewke
EFFECT OF DIETARY POLYPHENOL RICH PLANT PRODUCT FROM GRAPE ON GROWTH, SURVIVAL AND TOLERANCE TO VIBRIO INFECTION IN PACIFIC WHITE SHRIMP *Litopenaeus vannamei*
- 10:40 BREAK**
- 11:10 M A Kabir Chowdhury**, Hongli Song, Yao Liu, Xiaohui Dong
GROWTH PERFORMANCE OF JUVENILE PACIFIC WHITE SHRIMP *Litopenaeus vannamei* FED GRADED LEVEL OF A PROTEASE
- 11:30 Hui Gong**, Addison L. Lawrence
EVALUATION OF DIETARY PROTEIN AND ENERGY UTILIZATION EFFICIENCY IN VARIOUS FAMILIES OF *Penaeus vannamei*
- 11:50 Bambang M. Julianto**, Darrel Herbst
REDUCING PRODUCTION COSTS ON *Penaeus monodon* GROW OUT PONDS IN AUSTRALIA IN LOWER FEED CONVERSION RATIOS; A FIELD EXPERIENCE

FRIDAY

12:10 Sanjeevi Prakash, Thipramalai Thangappan Ajith Kumar,
Thangapandi Marudhupandi, Jeyagoby Balamurugan,
Thanumalaya Subramoniam
INFLUENCE OF LIPID ENRICHED DIETS ON THE REPRODUCTIVE
PERFORMANCE OF MARINE ORNAMENTAL SHRIMP *Rhynchocinetes*
durbanensis (CARIDEA: RHYNCHOCINETIDAE)

ORNAMENTALS

Friday, May 29 9:00 - 12:30 Room 401
Chairs: Junda Lin, Anna Mercy, I. C. Bang, H. S. Kang

9:00 T.V. Anna Mercy, Atul Kumar Jain
THE HOBBY OF ORNAMENTAL FISH KEEPING IN METRO INDIA WILL
OUTGROW MANY OF THE DEVELOPED COUNTRIES BY NEXT DECADE

9:20 Anna Mercy
AN OVERVIEW OF THE STATUS AND DISTRIBUTION OF WESTERN GHATS
FISH FAUNA OF INDIA WITH SPECIAL REFERENCE TO THE INDIGENOUS
ORNAMENTAL FISHES

9:40 Anna Mercy, Eapen Jacob
CHARACTERISTIC SPAWNING BEHAVIOUR AND CAPTIVE BREEDING OF
THE HILL-STREAM LOACH *Nemacheilus semiarmatus* – AN INDIGENOUS
ORNAMENTAL LOACH OF THE WESTERN GHATS OF INDIA

10:00 Anna Mercy, Eapen Jacob
PRE-SPAWNING AND SPAWNING BEHAVIOURAL EVENTS OF A NEWLY
DESCRIBED SPECIES *Puntius pookodensis* (A. MERCY & E. JACOB) – AN
INDIGENOUS ORNAMENTAL BARB OF THE POOKODE LAKE, WAYANAD,
KERALA, INDIA

10:20 Indira Divipala, Anna Mercy
REPRODUCTIVE BIOLOGY AND CAPTIVE BREEDING OF AN ENDEMIC
ORNAMENTAL CYPRINID *Chela faciata* SILAS OF THE WESTERN GHATS OF
INDIA

10:40 BREAK

11:10 Rudy Nugroho, Dewi Saraswati
THE EFFECTS OF *Terminalia catappa* LEAF EXTRACT ON THE
HAEMATOLOGICAL PROFILE OF ORNAMENTAL FISH *Betta splendens*

- 11:30 Anna Mercy**, Seena Augustine
FOOD AND FEEDING HABITS OF *Horadandia atukorali Deranyagala* (CYPRINIDAE) AN INDIGENOUS ORNAMENTAL BARB OF THE WESTERN GHATS OF INDIA
- 11:50 Anna Mercy**, Eapen Jacob
PARENTAL BEHAVIOUR OF *Pristolepis marginata* JERDON A POTENTIAL INDIGENOUS ORNAMENTAL FISH FROM THE WESTERN GHATS OF INDIA – ONE OF THE HOT-SPOT AREAS OF THE WORLD
- 12:10 Sajjan S.**, Anna Mercy
DISTRIBUTION, STOCK CHARACTERISTICS AND POPULATION DYNAMICS OF A THREATENED FISH *Sahyadria denisonii* FROM THE WESTERN GHATS OF INDIA

ANIMAL HEALTH AND WELFARE

Friday, May 29 9:00 - 15:20 Room 402
Chairs: Victoria Alday-Sanz, Paul Hardy-Smith,
Kyung-il Park, Shashank Keshavmurthy

- 9:00 Ghazala Jabeen**, Muhammad Javed, Abdul Rauf, Sikendar Hayat
EFFECT OF WATER QUALITY, SEDIMENTS AND PLANKTON ON FISH HEALTH RESIDING IN METAL CONTAMINATED WATER OF RIVER RAVI
- 9:20 Kjell Nilssen**, Rina Chakrabarti, Øistein Preus Hveding
CHEMICAL SEDATION OF SNOW-TROUT FROM THE HIMALAYAN KHIMTI KHOLA RIVER IN NEPAL
- 9:40 Beng Chu Kua**, Wan Norhana Wan Noordin, Nur Ashikin Arbi
IN VITRO STUDIES ON EFFECTIVENESS OF ESSENTIAL OILS FROM GARLIC *Allium sativum* AND CINNAMON *Cinnamomum zeylanicum* ON THE SURVIVAL RATE OF MARINE LEECH PARASITE *Zeylanicobdella arugamensis*
- 10:00 Jae-Young Oh**, Ju-Young Ko, Ji-Hyeok Lee, Won-Woo Lee, You-Jin Jeon
ENHANCEMENT OF NON-SPECIFIC IMMUNITY OF OLIVE FLOUNDER *Paralichthys olvaceus* FED WITH FERMENTED GARLIC ACID SOLUTION
- 10:20 Siti Zahrah Abdullah**, Nur-Nazifah M., Zamri-Saad M., Nik-Haiha N.Y., Azila A., Syafiq M.R., Rimatulhana R., Suphia A.S.
THE SIGNIFICANCE OF MULTIPLE BACTERIAL INFECTIONS IN *Lutjanus* sp. IN MALAYSIAN MARINE CAGE CULTURE SYSTEM
- 10:40 BREAK**

11:10 Navaneethaiyer Umasuthan, S.D.N.K. Bathige, Jehee Lee
EXPERIMENTAL FLAGELLIN INJECTION MEDIATES TRANSCRIPTION OF TLR5
SIGNALING GENES: GENOMIC AND EXPRESSIONAL PROFILING OF TELEOST
FLAGELLIN SENSING ELEMENTS

11:30 Sajith Dananjaya, Gelshan Godahewa, Jehee Lee, Mahanama De Zoysa
CHITOSAN SILVER NANO COMPOSITES: ANTIBACTERIAL ACTIVITY AND
POTENTIAL APPLICATIONS IN AQUACULTURE

11:50 Ruhil Hayati Hamdan, Hassan Mohd Daud, Bee Lee Ong,
Yasser Mohamad Abdelhadi, Nur Hidayahanum Hamid,
Nora Faten Afifah Mohamad, Sharifah Raina Manaf,
Kuttichantran Subramaniam, Kumari Geetha Muniandy
INCIDENCE OF CLASS 1 INTEGRON AND OTHER ANTIBIOTIC RESISTANCE
DETERMINANTS IN *Aeromonas hydrophila* ISOLATED FROM FRESHWATER
FISH

12:10 LUNCH

14:00 Alim Isnansetyo, Tyas Ayu Wulansari, Noer Kasanah
ADMINISTRATION OF ALGINATE FROM *Sargassum* sp. TO ENHANCE NON-
SPECIFIC IMMUNE RESPONSE IN CATFISH *Clarias* sp. AGAINST *Aeromonas*
hydrophila

14:20 Bibha Kumari, Vikas Kumar, Jawaid Ahsan
EFFECTS OF ARSENIC ON GLUCOSE AND GLYCOGEN CONTENT IN A
WALKING CATFISH *Clarias batrachus* L.

14:40 Leila Basti, Ryoji Matsushima, Toshiyuki Suzuki, Satoshi Nagai
COMPARATIVE PATHOLOGICAL STUDY OF JAPANESE SCALLOP *Patinopecten*
yessoensis AND NOBLE SCALLOP *Mimachlamys nobilis* FED MONOCLONAL
CULTURES OF *Dinophysis caudata*

15:00 Tae Ho Lee, Hyun Woo Gil, In-Seok Park
Moved to Diseases Thursday
ANESTHETIC AND PHYSIOLOGICAL EFFECT OF CLOVE OIL AND LIDOCAINE-
HCL ON THE GRASS PUFFER *Takifugu niphobles*

15:20 Anna Mercy, Sulekha BT
HISTOPATHOLOGY AS A TOOL TO ASSESS THE HEALTH STATUS OF FISHES
EXPOSED TO PESTICIDES IN KUTTANAD PADDY FIELDS OF KERALA, INDIA

STURGEON AQUACULTURE AND CONSERVATION

Friday, May 29 9:00 - 15:20 Room 301

Chairs: Kevan Main, Jeff Hinshaw, Erfan Shahkar, S. C. Bai

- 9:00 Qiwei Wei, Ping Li**
STURGEON AQUACULTURE INDUSTRY IN CHINA: DIFFICULTIES AND WAY OUT
- 9:20 Hui Zhang, Qiwei Wei, Hao Du, Jinming Wu, Chengyou Wang**
THE IMPACTS OF THE FIRST DAM IN THE YANGTZE MAINSTEM ON THE STURGEONS AND PADDLEFISH IN THE YANGTZE RIVER: A REVIEW
- 9:40 Jinming Wu, Qiwei Wei, Hao Du, Hui Zhang, Chengyou Wang**
INTERRUPTIONS OF NATURAL SPAWNING OF CHINESE STURGEON
- 10:00 Ping Li, Qiwei Wei, Mengdan Xi, Wei Guo, Xuan Xie**
CRYOPRESERVATION OF STURGEON SPERM: EFFECTS OF EXTENDER SUPPLEMENTED WITH DIFFERENT ANTIOXIDANTS ON SPERM MOTILITY, MEMBRANE AND ACROSOME INTEGRITY
- 10:20 BREAK**
- 11:10 Angelina Firsova, Alexandr Tikhomirov**
CRYOCONSERVATION OF STURGEON OVUIES
- 11:30 Jeffrey M. Hinshaw, Kevan L. Main, James T. Michaels**
AN OVERVIEW OF STURGEON AQUACULTURE IN NORTH AMERICA
- 11:50 Jinho Bae, Mahmoud Mohseni, Sungchul C. Bai, Erfan Shahkar**
UTILIZATION OF SOYBEAN MEAL AS AN ALTERNATIVE PROTEIN SOURCE IN JUVENILE OF BELUGA *Huso huso* L.
- 12:10 Mahmoud Mohseni, Sungchul C. Bai, Craig Browdy**
COMPARISON OF EFFECTS OF DIETARY COPPER SOURCES AND LEVELS ON GROWTH, ENZYME ACTIVITY AND TISSUE COPPER CONCENTRATION OF JUVENILE BELUGA STURGEON *Huso huso*
- 12:30 LUNCH**
- 14:00 Mahmoud Mohseni, Mohammad Pourkazemi, Sungchul C. Bai, Erfan Shahkar**
EFFECTS OF VITAMIN E DEFICIENCY ON DIETARY VITAMIN C REQUIREMENT IN SIBERIAN STURGEON *Acipenser baerii*

FRIDAY

14:20 Erfan Shahkar, Mahmoud Mohseni, Sungchul C. Bai, Fariba Ramzani, Maryam Khandaei
EFFECTS OF PHOTOPERIOD MANIPULATION ON GROWTH PERFORMANCE AND STRESS RESPONSES OF JUVENILE BELUGA *Huso huso*

14:40 Wendy M. Sealey, T. Gibson Gaylord, Omolola C. Betiku, Matt Toner, Jason Ilgen, Christopher G. Hooley, William C. Fraser, Frederic T. Barrows
EFFECTS OF PHOSPHORUS SUPPLEMENTATION ON GROWTH, FEED EFFICIENCY AND MINERAL STATUS OF JUVENILE STURGEON FED DIETS WITH HIGH AND LOW LEVELS OF FISHMEAL

AQUACULTURE IN INDONESIA

Friday, May 29 9:00 - 15:20 Samda Hall A

Chairs: Agung Sudaryono, Rokhmin Dahuri, D. H. Yoon, S. R. Lim

9:00 Andi Tamsil, Hasnidar Yasin, Yushinta Fujaya
APPLICATION FITOECDYSTEROID OF IMPROVED HAEMOLIMPH ECDYSTEROID AND MOLTING ACTIVITIES OF MUD CRAB *Scylla olivecea* (HERBST, 1796)

9:20 Hasnidar Yasin, Yushinta Fujaya, Dody Dharmawan Trijuno, Andi Tamsil
EFFECTIVENESS OF MOLTING HORMONES (20 HYDROXYECDYSON) EXOGENOUS INCREASE IN HAEMOLIMPH ECDYSTEROID AND MOLTING ACTIVITIES BLUE CRAB *Scylla olivecea* (HERBST, 1796)

9:40 Yushinta Fujaya, Dody Dharmawan Trijuno, Andi Ivo Asphama, Nur Alam
IDENTIFICATION OF SUITABLE BLUE SWIMMER CRABS SPECIES COMPLEX FOR REARED IN BRACKISH WATER POND

10:00 Agung Sudaryono, Alfabetian Harjuno C. Haditomo, Alim Isnansetyo
DIFFERENT LEVELS OF DIETARY TROPICAL BROWN ALGAE *Sargassum* sp. MEAL TO ENHANCE BIOLOGICAL PERFORMANCES OF JUVENILE WHITE SHRIMP *Litopenaeus vannamei*

10:20 Rita Rostika, Henhen Suherman
THE ABILITY OF MONOSEX NILEM *Osteochilus hasselti* A WATER PURIFIER BIOLOGICAL AGENT IN CONTROLLING PERIPHYTON AT FLOATING NETS IN CIRATA RESERVOIR

10:40 BREAK

- 11:10 Irzal Effendi**, Muhammad Agus Suprayudi, Eddy Supriyono,
Enang Harris Surawidjaja
FLOATING NET CAGE CULTURE OF WHITE SHRIMP *Penaeus vannamei* IN
THOUSAND ISLANDS JAKARTA, INDONESIA
- 11:30 Esti Hardi**, Gina Saptiani
ACTIVITY ANTAGONISTIC OF EXTRACELLULER PRODUCT OF *Pseudomonas* sp.
SPECIES AGAINST *Aeromonas hydrophila* FROM NILA TILAPIA
AQUACULTURE IN EAST BORNEO
- 11:50 Noer Kasanah**, Triyanto Triyanto, Alim Isnansetyo
BIOPROSPECTING OF MARINE NATURAL PRODUCTS FOR BACTERIAL
INFECTIOUS DISEASES IN AQUACULTURE: CHALLENGE AND OPPORTUNITY
- 12:10 Iskandar Muchtar**, A.A.H. Rafsanjani, Y. Dhahiyat, E.K. Wikarta
ADAPTATION STRATEGY IN FISH FARMING AT FLOATING NET CAGE
SAGULING RESERVOIR, INDONESIA IN EUTROPHIC CONDITION

FRIDAY

SEAFOOD AND HEALTH (GILLS)

Friday, May 29 9:00 - 15:20 Room 302

Chairs: Roy Palmer, S. M. Kim

- 9:00 Roy Palmer**
GLOBAL PERSPECTIVES ON SEAFOOD & HEALTH
- 9:20 Shakuntala Haraksingh Thilsted**
SESSION AIMS TO DISCUSS LONG-TERM GOALS REGARDING THE
PLACE OF “NUTRITION-SENSITIVE AQUACULTURE” WITHIN “HEALTHY
AND SUSTAINABLE FOOD SYSTEMS AND DIETS”, AS DESCRIBED IN THE
FRAMEWORK FOR ACTION OF THE SECOND INTERNATIONAL CONFERENCE
ON NUTRITION (ICN2): [HTTP://WWW.FAO.ORG/3/A-MM215E.PDF](http://www.fao.org/3/A-MM215E.PDF)
- 10:00 Jillian Fry**, David Love, Juan Gormaz, Marcia Erazo
PUBLIC HEALTH PERSPECTIVES ON AQUACULTURE
- 10:20 Jun-Ho Jang**, Ji-Hyeok Lee, You-Jin Jeon, Toru Nyunoya
APO-9'-FUCOXHANTHINON FROM THE MARINE ALGA *Undariopsis*
peteseniana PROTECTS AIRWAY EPITHELIAL CELLS FROM CIGARETTE
SMOKE-INDUCED DNA DAMAGE AND CYTOTOXICITY
- 10:40 BREAK**

- 11:10 Gulnihal Ozbay**, Talaysha Lingham, Eunice Handy, Peta-gay Jackson, Latadevi Karuna Chintapenta, Laurieann Phalen
COMPARATIVE STUDY ON TEMPORAL PHYSICO-CHEMICAL QUALITY AND MICROBIAL CONTAMINANTS IN EASTERN OYSTERS *Crassostrea virginica* FROM CLOSED AND OPEN WATERS
- 11:30 You-Jin Jeon**, Ju-Young Ko
PURIFICATION AND DETERMINATION OF BIOACTIVE PEPTIDE FROM FLOUNDER FISH *Paralichthys olivaceus* USING DIGESTIVE PROTEASES
- 11:50 Yu-Chun Hsu**, Christina Wong, Zwe-Ling Kong
THE AMELIORATING EFFECTS OF BROWN ALGAE EXTRACTS ON DIABETES INDUCED REPRODUCTIVE DAMAGE
- 12:10 Delin Duan**, Xiaodan Li, Chi Ning, Li Shuai, Yunliang Guo
EFFECTS OF *Saccharina japonica* POLYSACCHARIDE TO THE DIABETES MELLITUS MOUSE
- 12:30 LUNCH**
- 14:00 Sang Moo Kim**, J. M. Park
BIOFUNCTIONAL ACTIVITIES AND APPLICATION OF ENZYMATIC ALASKA POLLOCK ROE HYDROLYSATE AS A FOOD INGREDIENT
- 14:20 Hyeung-Rak Kim**, Eun-Ji Joung, Wi-Gyeong Gwon, Chul Woong Oh
EVALUATION OF BIOLOGICAL ACTIVITIES OF ETHANOLIC EXTRACT FROM *Sargassum serratifolium*

MOLLUSC CULTIVATION, BROODSTOCK AND HATCHERY

Friday, May 29 9:00 - 17:20 Samda Hall B

Chairs: Neill J. Goosen, Sandra Shumway, Wayne O'Connor, Andrea Alfaro, Sang-Man Cho, Kwang-Sik Choi

- 9:00 Mostafizur Rahman Mondol**, Chul-Won Kim, Chang-Keun Kang, Sang Rul Park, Kwang-Sik Choi
GROWTH AND REPRODUCTION OF EARLY GROW-OUT HARDENED JUVENILE PACIFIC OYSTERS *Crassostrea gigas* IN GAMAKMAN BAY, OFF THE SOUTH COAST OF KOREA
- 9:20 Mostafizur Rahman Mondol**, Shashank Keshavmurthy, Hee-Jung Lee, Hyun-Ki Hong, Heung-Sik Park, Sang Rul Park, Chang-Keun Kang, Kwang-Sik Choi
RECOVERY OF WILD PACIFIC OYSTER *Crassostrea gigas* IN TERMS OF REPRODUCTION AND GAMETOGENESIS TWO-YEARS AFTER THE HEBEI SPIRIT OIL SPILL ACCIDENT OFF THE WEST COAST OF KOREA

- 9:40 Gulnihal Ozbay**, Laurieann Phalen, Tyler O’Neal, Matthew Stone, Katherine Ommanney, Eleanor Johnson, Brian Reckenbeil, John Ewart
 INVESTIGATING EFFICIENCY OF BOTTOM AND HANGING GEARS FOR GROWING EASTERN OYSTERS *Crassostrea virginica*
- 10:00 Hyun-Ki Hong**, Kwang-Sik Choi
 SEASONAL CHANGES IN THE ENVIRONMENTAL PARAMETERS AND REPRODUCTION ON THE HEMOCYTE PARAMETERS IN THE SUBTROPICAL OYSTERS *Saccostrea kegaki* AND *Hyotissa hyotis* IN JEJU ISLAND OFF THE SOUTH COAST OF KOREA
- 10:20 Manoj R. Nair**, Belenko Halverson, Clayton Maluwelgiye, Justino Smith, Biuma Samson, Harry Langrine, Tabwi Aini
 BLACK LIP PEARL OYSTER *Pinctada margaritifera* HALF PEARL TECHNOLOGY DEVELOPMENT AND SKILL TRAINING IN THE U.S. AFFILIATED PACIFIC ISLAND COUNTRIES OF FEDERATED STATES OF MICRONESIA AND REPUBLIC OF THE MARSHALL ISLANDS
- 10:40 BREAK**
- 11:10 Rebecca Smith**, Andrew Jeffs
 SHOULD I STAY OR SHOULD I GO? HOW AGE AND NATAL ORIGINS AFFECT GREENSHELL™ MUSSEL RETENTION
- 11:30 Amita Saxena**
 FRESH WATER DESIGNED PEARL CULTURE TECHNOLOGY
- 11:50 Leila Basti**, Tatsuya Oda, Kyohito Nagai, Ryuichi Watanabe, Toshiyuki Suzuki, Satoshi Nagai
 ROLE OF CYTOTOXICITY, HEMOLYSIS, AND PSTs IN THE DELETERIOUS EFFECTS OF *Alexandrium* spp. ON OOCYTES OF THE JAPANESE PEARL OYSTER *Pinctada fucata martensii*
- 12:10 Sandra Shumway**, Alex Walsh, Stephan Bullard, Steven Fisher
 FIELD TESTING OF NOVEL ANTIFOULING COATINGS FOR THE AQUACULTURE INDUSTRY – PRELIMINARY RESULTS
- 12:30 LUNCH**
- 14:00 Andrea C. Alfaro**, Tim Young, Silas Villas-Bôas
 METABOLOMICS APPROCHES TO IMPROVE MUSSEL LARVAL PRODUCTION

- 14:20 Young-Min Kim**, Hee-Do Jeung, Hee-Jung Lee, Jin-Su Park, Hyun-Sil Kang, Chul-Won Kim, Hyung-Seop Kim, Kwang-Sik Choi
SEASONAL CHANGES IN GAMETOGENESIS AND REPRODUCTIVE EFFORT OF MUSSEL *Mytilus coruscus* FROM SHALLOW ROCKY SUBTIDAL IN YEOSU AND KUNSAN ON THE WEST AND SOUST COAST OF KOREA
- 14:40 Hyun-Sil Kang**, Hyun-Ki Hong, Hee-do Jeung, Naoki Itoh, Kwang-Sik Choi
PATHOLOGIC SURVEY OF *Perkinsus olseni* AND OTHER PARASITES IN THE MANILA CLAM *Ruditapes philippinarum* FROM KOREAN WATER DURING POST-SPAWNING SEASON
- 15:00 Thao Ngo Thi Thu**, Hanh Tran Thi Ngoc
EFFECTS OF DIFFERENT FLOCCULATED ALGAE ON THE GROWTH AND SURVIVAL RATE OF BLOOD COCKLE *Anadara granosa*
- 15:20 BREAK**
- 15:40 Thao Ngo Thi Thu**, Trang Nguyen Thi Nha
EFFECTS OF DIFFERENT LIGHT CONDITIONS ON THE HATCHING RATE, GROWTH AND SURVIVAL OF BLACK APPLE SNAIL *Pila polita*
- 16:00 Hyun-Sung Yang**, Hyun-Sil Kang, Heung-Sik Park, Choong Hwang Noh, Eui-Young Jeong, Kwang-Sik Choi
FIRST REPORT ON THE OCCURRENCE OF THE COMB PEN SHELL *Atrina pectinata* (LINNAEUS, 1767) (BIVALVIA: PINNIDAE) IN ULLEUNGDO ISLAND IN THE EAST SEA/JAPAN SEA OF KOREA; MOLECULAR IDENTIFICATION OF THE SPECIES USING COI GENE SEQUENCE
- 16:20 Olivia Evans**, Ika Paul-Pont, Paul Hick, Richard Whittington
A SIMPLE CENTRIFUGATION METHOD FOR IMPROVING THE DETECTION OF OSTREID HERPESVIRUS-1 (OsHV-1) IN NATURAL SEAWATER SAMPLES WITH AN ASSESSMENT OF THE POTENTIAL FOR PARTICULATE ATTACHMENT

SEAWEEDS AND ALGAE

Friday, May 29 9:00 - 17:20 Halla Hall B

Chairs: Patricia Abelin, S. R. Park, J. I. Kim, B. D. Choi, Y. M. Kim, Yufeng Yang

- 9:00** **Huo Yuanzi**, Wei Zhangliang, Han Fang, Hu Ming, Wu Hailong, He Peimin
IMTA PRACTICES USING SEAWEED WITH AQUATIC ANIMALS IN TWO ENCLOSED BAYS AT THE COAST OF EAST CHINA SEA
- 9:20** **Sang-Rae Lee**, Jee Eun Lee, Seung-Oh Kim, Il-Ki Hwang, Dong-Soo Ha, Mi Sook Hwang
COMPARATIVE MITOGENOMICS OF SPECIES OF THE GENUS *Pyropia* AND MOLECULAR MARKER DEVELOPMENT TO DIFFERENTIATE CULTIVARS OF *Pyropia* SPECIES
- 9:40** **Soon Jeong Lee**, Mi Sook Hwang, Jae Min Baek, Dong-Soo Ha, Myoung Ae Park, Jee Eun Lee, Sang-Rae Lee
MOLECULAR IDENTIFICATION OF THE ALGAL PATHOGEN *Pythium* SPECIES FROM *Pyropia yezoensis* ON RED ROT DISEASE
- 10:00** **Yu-An Ma**, Lee-Feng Chien, Jenn-Wen Huang, Chung-Chyi Yu
DEVELOPMENT OF A NEWLY CHLOROPHYLL FLUORESCENCE DETECTOR ON MICROALGAE CULTIVATION
- 10:20** **Ginnae Ahn**, Kil-Nam Kim, You-Jin Jeon, Chang-Bum Ahn
IMMUNOLOGICAL ROLES OF A SULFATED POLYSACCHARIDE FROM *Ecklonia cava*, A BROWN SEAWEED
- 10:40** **BREAK**
- 11:10** **Kalpa W. Samarakoon**, Chaminda Lakmal H.H., D.T.U. Abeythunga, You J. Jeon
ANTIOXIDANT AND *IN VITRO* ANTI-INFLAMMATORY ACTIVITIES OF THE SELECTED SRI LANKAN MARINE ALGAE
- 11:30** **Yufeng Yang**, Xiugeng Fei, Ik Kyo Chung
DEVELOPMENT OF CULTIVATED SEAWEED *Gracilaria* AND ITS CONTRIBUTION TO ENVIRONMENTAL IMPROVEMENTS IN CHINESE COASTAL WATERS
- 11:50** **Xian Sun**, Yu Zhong, Ya Zuo, Yufeng Yang
PHYSIOLOGICAL AND BIOCHEMICAL CHARACTERISTICS OF THREE SELENIUM-RICH ALGAE AND ANTITUMOR ACTIVITY BY SE-*Ulva fasciata*

FRIDAY

- 12:10 Young-Mog Kim**
APPLICATION OF MICROBIAL FERMENTATION IN SEAWEED PROCESSING
- 12:30 LUNCH**
- 14:00 Jin Niu**, Li-xia Tian, Yong-jian Liu, Hui-jun Yang, Gui-ying Liang
EFFECTS OF DIFFERENTS LEVELS OF DIETARY WAKAME *Undaria pinnatifida* ON GROWTH, IMMUNITY AND INTESTINAL STRUCTURE OF JUVENILE *Penaeus monodon*
- 14:20 Wooseok Choi**, Taeho Kim, Seon-Mi Jeon, Areumi Park, Hyeon Yong Lee, Do-Hyung Kang
ENHANCEMENT OF THE PRODUCTION OF EICOSAPENTAENOIC ACID (EPA) AND FATTY ACID FROM MARINE GREEN MICROALGAE CULTURED IN F/2 MEDIA WITH THE DIFFERENT CONCENTRATIONS
- 14:40 Nalae Kang**, Ji-Hyeok Lee, WonWoo Lee, Ju-Young Ko, Eun-A Kim, Jin-Soo Kim, Min-Soo Heu, Gwang Hoon Kim, You-Jin Jeon
GALLIC ACID ISOLATED FROM *Spirogyra* sp. IMPROVES CARDIOVASCULAR DISEASE THROUGH VASORELAXATION AND ANTIHYPERTENSIVE EFFECT
- 15:00 Hyung Geun Kim**, Joon Kim, Ratih Adharini, Kandasamy Ganesan
CULTIVATION OF THE RED ALGA *Grateloupia asiatica*
- 15:20 BREAK**
- 15:40 Alim Isnansetyo**, Fadilah Narlaili Lutfia, Muhammad Nursid, Trijoko Trijoko
CYTOTOXICITY OF FUCOIDAN FROM THREE TROPICAL BROWN ALGAE, *Sargassum cristaefolium*, *Turbinaria conoides* AND *Padina fraseri*, AGAINST BREAST AND COLON CELL LINES
- 16:00 Ji-Hyeok Lee**, Ju-Young Ko, Jae-Young Oh, Chul-Young Kim, You-Jin Jeon
ANTICANCER ACTIVITY OF SARGACHROMANOL K FROM *Sargassum siliquastrum* AGAINST B16F10 CELLS VIA APOPTOSIS AND CELLULAR DIFFERENTIATION
- 16:20 Xiaoting Fu**, Xueyan Wang
ENZYMATIC PRODUCTION OF AGAROSE FROM RED ALGAE

PRODUCT QUALITY

Friday, May 29 11:10 - 12:30 Room 303

Chairs: Fabio Soller, Y. M. Kim

- 11:10 Claude E. Boyd**, Aaron McNevin
IMPROVED EFFICIENCY AT THE FARM-LEVEL AND IN THE SUPPLY CHAIN BY ADOPTING BETTER MANAGEMENT PRACTICES
- 11:30 Alam AKM Nowsad**, Nazmul Hassan, Motaleb Hossain, Sheikh Mohammad Sayem, Jose Fernandez Polanco
ASSESSMENT OF POST HARVEST LOSS OF WET FISH: A NOBLE APPROACH BASED ON SENSORY INDICATOR ASSESSMENT
- 11:50 Osama El-Husseiny**, Ashraf Suloma, Elham A. Wassef, Ahmed M. Aboseaf
COMBINED EFFECTS OF FASTING AND WASH-OUT FEEDING STRATEGY ON REDUCING LINOLEIC ACID ACCUMULATED IN AFRICAN CATFISH MUSCLE

SHRIMP GENETICS, BROODSTOCK AND HATCHERY MANAGEMENT

Friday, May 29 14:00 - 15:20 Halla Hall A

Chairs: Nigel Preston, Sunghan Kim

- 14:00 Jitao Li**, Jian Li, Ping Liu, Peng Ma, Shuwen Jia, Yang Li
EVALUATION OF GERMPLASM RESOURCES AND ANALYSIS OF GENETIC DIVERSITIES FROM THE RIDGETAIL WHITE PRAWN *Exopalaemon carinicauda*
- 14:20 Felix Sugantham**, Gopalakannan Ayyaru, Cheryl Antony, Antony Jesu Prabhu
INTENSIVE NURSERY REARING OF *Litopenaus vannamei* IN AEROBIC MICROBIAL FLOC (AMF) DRIVEN LOW SALINE RACEWAY SYSTEM
- 14:40 Wenming Ma**, Yeqing Qian, Moran Wang, Fan Yang, Weijun Yang
A NOVEL TERMINAL AMPULLAE PEPTIDE IS INVOLVED IN THE PROTEOLYTIC ACTIVITY OF SPERM IN THE PRAWN *Macrobrachium rosenbergii*
- 15:00 Morten Rye**, James Cock, Marcela Salazar
MANAGING DISEASES IN NON-NATIVE SHRIMP POPULATIONS

FRIDAY

ENHANCEMENT, STOCKING AND RANCHING

Friday, May 29 14:00 - 15:20 Room 401

Chairs: Ken Leber, Reginald Blaylock, Hyeonho Yun

- 14:00 Shengyong Xu**, Shanshan Cai, Xiumei Zhang, Ming Liu, Na Song, Jun Wang, Tianxiang Gao
THE SUITABILITY OF MITOCHONDRIAL AND MICROSATELLITE DNA AS GENETIC TAGS TO ASSESS STOCK ENHANCEMENT OF *Portunus trituberculatus*
- 14:20 Reginald B. Blaylock**, Keith J. Cuevas, Andrew N. Evans, Taylor W. Guest, Lauren A. Jackson, Chet F. Rakocinski, Eric A. Saillant
ASSESSMENT OF FACTORS AFFECTING POST-RELEASE SURVIVAL OF SPOTTED SEATROUT *Cynoscion nebulosus*
- 14:40 P. Sorgeloos**, A. Litvinenko, S. Semenchenko, N. Smeshlivaya
MODERN AQUACULTURE OF WHITEFISH IN OB BASIN IN WESTERN SIBERIA
- 15:00 Cheng Y. Wang**, Hao Du, Qiwei Wei, Meng Liu, Hui Zhang, Zhigang Liu, Jinming Wu, Li Shen
MIGRATION AND DISTRIBUTION OF CHINESE STURGEON *Acipenser sinensis* (GRAY, 1835) IN THE SEA: BASED ON SATELLITE TELEMETRY AND RECAPTURE

SALMONIDS AND TROUT

Friday, May 29 14:00 - 15:20 Room 303

Chairs: Peter (Wei-Min) Chen, R. K. Kowalski, J. H. Park

- 14:00 Kamarul Zaman Zarkasi**, Richard Taylor, Guy Abell, Mark Tamplin, Brett Glencross, John Bowman
THE RELATION OF DIETARY FORMULATION AND DIGESTA PROPERTIES ON THE ATLANTIC SALMON *Salmo salar* L. GASTROINTESTINAL MICROBIAL COMMUNITY
- 14:20 Wei-Min Chen**
AQUALINGUAL AS A SMART FEEDING METHOD FOR CAGE-FARMED COHO SALMON *Oncorhynchus kisutch* IN JAPAN
- 14:40 Philip Lyons**, James F. Turnbull, Karl A. Dawson, Mags Crumlish
EXPLORING THE DIVERSITY OF THE RAINBOW TROUT *Oncorhynchus mykiss* INTESTINAL MICROBIOME USING NEXT GENERATION SEQUENCING

15:00 Zuliyati Rohmah, Yongjun Choi, Jin-Soo Kim, Seok-Joong Kang, Byeong Dae Choi
ENHANCING GROWTH AND MUSCLE COLORATION OF SEA-REARED RAINBOW TROUT *Oncorhynchus mykiss* WITH ASCIDIANS' TUNIC CAROTENOIDS

ONE HEALTH EPIGENOMICS

Friday, May 29 15:40 - 17:20 Samda Hall A
Chairs: Acacia Warren, J. B. Jeong, H. K. Hong

15:40 Acacia Alcivar-Warren
INTRODUCTION / WELCOME – A COMMENT ON FOOD SECURITY AND HEALTH CONSIDERATIONS REGARDING HORIZONTAL TRANSFER OF MICROBIAL TRANSGENES IN LIGHT OF EMERGING BACTERIAL DISEASES

16:00 Rashmi R. Mishra, Hrudayanath Thatoi, Amutha Chinnaiyah, Periasamy Subramanian, Jianwu Tang, Bruno Gomez-Gil, Sonia Soto-Rodriguez, Jorge Echaverria, Robert Bogden, Jinyun Tang, William J. Riley, Nicholas Bouskill, Eoin L. Brodie, Yiwei Cheng, Gober Asuncion, Oscar Jaen, Christian Saltos, Sofia Figueroa, Miriam N. Alcivar, Daniela Espinoza, Mayra Galindo, Aracelly Alcivar, Dang Thi Hoang Oanh, Serena Moselman-Valtierra
mangroveENCODE: TECHNOLOGIES FOR ASSESMENT OF THE MICROBIOME, CARBON STOCKS (CO₂) AND ENDOCRINE DISRUPTING CHEMICALS (EDCs) OF SEDIMENTS FROM MANGROVES AND ADJACENT SHRIMP PONDS FOR CONSERVATION OF SELECTED MANGROVE HABITATS OF THE WORLD – A PILOT PROJECT

16:20 Christine Wai, Ka Hou Chu, Nicki Leung, Patrick Leung
MULTIPLE STRATEGIES TO DEVELOP ALLERGEN-SPECIFIC IMMUNOTHERAPY FOR SHELLFISH ALLERGY

16:40 Hugo H. Montaldo, Héctor Castillo-Juárez, Gabriel R. Campos-Montes, Juan C. Quintana-Casares, Sonia A. Soto Rodríguez, Leobardo Montoya-Rodríguez, Miguel Betancourt-Lozano, Alfonso Martínez-Ortega, Rodolfo Lozano-Olvera, Judith H. González-Benítez, Alejandra Caballero-Zamora, Lidia De los Ríos-Pérez
GENETIC AND INBREEDING EFFECTS ON GROWTH, GENERAL SURVIVAL AND RESISTANCE TO ACUTE HEPATOPANCREATIC NECROSIS DISEASE (AHPND) AND WHITE SPOT SYNDROME VIRUS (WSSV) IN *Penaeus (Litopenaeus) vannamei*

PREBIOTICS AND PROBIOTICS

Friday, May 29 15:40 - 17:20 Room 402

Chairs: Fabio Soller, J. Y. Bae

- 15:40 Stephane Frouel**, Saowanee Srimontree, Orapint Jintasataporn
BACILLUS IMPROVE PERFORMANCE AND STRESS RESPONSE OF WHITE SHRIMP *Litopenaeus vannamei* POST LARVAE AND JUVENILE
- 16:00 Gladys Pascual**, Farhana Ahmed, Marleen De Troch, Edgar Amar, Peter Bossier, Peter De Schryver
STABLE 13-C ISOTOPE ANALYSIS SHOWED POLY-BETA-HYDROXYBUTYRATE (PHB) ASSIMILATION IN THE BRINE SHRIMP *Artemia franciscana* AS A TIME AND DIET-MEDIATED PROCESS
- 16:20 Samad Rahimnejad**, Seyed Hossein Hoseinifar, M. Ángeles Esteban, Mathieu Castex, Sang-Min Lee
EVALUATION OF SUPPLEMENTAL EFFECTS OF *Pediococcus acidilactici* AND GALACTOOLOGOSACCHARIDE SINGLY OR COMBINED IN DIETS FOR ROCKFISH *Sebastes schlegeli*
- 16:40 Jeongwhui Hong**, YoungJin Park, Hyeonho Yun, Seung-han Lee, Sungchul C. Bai
EFFECTS OF DIETARY PROBIOTICS ON GROWTH PERFORMANCE AND NON-SPECIFIC IMMUNE RESPONSES IN STARRY FLOUNDER *Platichthys stellatus*

SEA CUCUMBERS

Friday, May 29 15:40 - 17:20 Room 401

Chairs: Grant Leeworthy, B. S. Oh, Jeong Whui Hong

- 15:40 Manoj R. Nair**
HATCHERY BASED SANDFISH SEA CUCUMBER *Holothuria scabra* TECHNOLOGY DEVELOPMENT IN THE U.S. AFFILIATED PACIFIC ISLAND COUNTRIES OF FEDERATED STATES OF MICRONESIA, REPUBLIC OF PALAU
- 16:00 Philip James**, Sten Siikavuopio
SEA URCHIN AQUACULTURE IN NORWAY AND EUROPE, MOVING FROM RESEARCH TO COMMERCIALISATION AND POSSIBLE IMPACTS ON ASIAN MARKETS

SEAFOOD PROCESSING TECHNOLOGY

Friday, May 29 15:40 - 17:20 Room 302

Chairs: Femeena Hassan, Y. J. Jeon

- 15:40 Oon-Doo Baik**
HOW TO COMPUTER-SIMULATE STERILIZATION OF CANNED SEA FOODS FOR EFFICIENT DESIGN AND OPTIMIZATION?
- 16:00 Caiyan Li, Wei Song, Ya'nan Yang, Guoying Qian**
EXTRACTION OPTIMIZATION AND CHARACTERIZATION OF COLLAGEN FROM THE LUNG OF SOFT-SHELLED TURTLE *Pelodiscus sinensis*
- 16:20 Hong Lin, Shuyuan Du**
SCIENTIFIC ISSUES OF SEAFOOD QUALITY AND SAFETY IN CHINA
- 16:40 Haijin Mou, Jianlei Wang, Wen Cheng, Gerile Qingyin, Wei Tang**
PRELIMINARY STUDY ON THE AQUATIC PROTEIN POWDER BY FERMENTATION FROM LOW-VALUE MARINE RESOURCES

SHRIMP GENERAL TOPICS

Friday, May 29 15:40 - 17:20 Halla Hall A

Chairs: Zuridah Merican, Ronnie Tan, I. K. Jang

- 15:40 Darryl E. Jory, Craig L. Browdy**
THE SHRIMP FARMING INDUSTRY IN THE AMERICAS: STATUS, ISSUES AND PERSPECTIVES
- 16:00 Reza Faizbakhsh, Che Roos Saad, Mad Nasir Shamsudin, Saeed Yazdani, Elham Maghsoudloo**
POLICY AND PLANNING PRODUCTION ON THE SHRIMP CULTURE IN SOUTH, IRAN
- 16:20 Mathieu Castex, Dorothee Gotz, Stephane Ralite, Vanessa Demey**
A DOUBLE SCREENING APPROACH VALIDATED BY IN VIVO CHALLENGE TRIALS TO DEVELOP PREVENTIVE FEEDING STRATEGIES TO MITIGATE PENAEID SHRIMP SENSITIVITY TO VIBRIOSIS IN AN ATTEMPT TO ADDRESS THE ACUTE HEPATOPANCREATIC NECROSIS SYNDROME (AHPNS) CHALLENGE

IMMUNOLOGY

Friday, May 29 15:40 - 17:20 Room 301

Chairs: Diogo Thomaz, I. C. Bang

- 15:40 Thitiya Summathed, Jun Zou, Mingxian Chang, Pin Nie, Simon Wadsworth, Chris Secombes**
DEVELOPMENT AND CHARACTERISATION OF RAINBOW TROUT *Oncorhynchus mykiss* TYPE I INTERFERON ANTIBODIES

- 16:00 William Shanthakumar Thulasitha**, Navaneethaiyer Umasuthan,
M.S. Mothishri, Jehee Lee
MOLECULAR AND FUNCTIONAL CHARACTERIZATION OF AN ENDOPLASMIC
RETICULAR THIOREDOXIN SUPERFAMILY PROTEIN FROM TWO SELECTED
TELEOST
- 16:20 Neill Goosen**, Lourens De Wet, Johann Görgens
THE EFFECTS OF PROTEIN HYDROLYSATES FED UNDER TWO DIFFERENT
FEEDING REGIMES ON THE IMMUNITY AND GROWTH OF THE SOUTH
AFRICAN ABALONE *Haliotis midae*
- 16:40 M A Kabir Chowdhury**, Hongli Song, Yao Liu, Xiaohui Dong
IMMUNE PARAMETERS AND RESPONSE TO DISEASES CHALLENGE TESTS
OF JUVENILE PACIFIC WHITE SHRIMP *Litopenaeus vannamei* FED GRADED
LEVEL OF A PROTEASE
- 17:00 Zhitao Qi**, Qihuan Zhang, Zisheng Wang, Gao Qiao, Jie Zhou, Jason Holland,
Qian Gao
TRANSCRIPTOMIC PROFILING ANALYSIS OF THE ENDANGERED CHINESE
GIANT SALAMANDER *Andrias davidianus*: IMMUNE RESPONSE TO *Aeromonas*
hydrophila INFECTION

SATURDAY, May 30

DEVELOPMENT, WELFARE AND POVERTY ALLEVIATION (AWF)

Saturday, May 30 9:00 - 10:40 Room 401

Chairs: Roy Palmer, Bibha Kumari, S. J. Kang

- 9:00 Jennifer Cobcroft**
MYANMAR: MAKING CONNECTIONS AND MAXIMISING OPPORTUNITY IN
AQUACULTURE
- 9:20 Bibha Kumari**, Roy D. Palmer
POVERTY ALLEVIATION OF FISHERY COMMUNITY OF PATNA (BIHAR, INDIA)
THROUGH CHANGE IN TRADITIONAL PRACTICES
- 9:40 Irna Sari**
HUMAN CAPITAL AND CAPABILITY OF INDONESIAN SHRIMP PRODUCERS TO
PARTICIPATE IN THE LUCRATIVE GLOBAL MARKETS
- 10:00 Roy Palmer**
AwF – UPDATE

SUSTAINABLE DEVELOPMENT OF AQUACULTURE

Saturday, May 30 9:00 - 10:40 Room 401

Chairs: Alka Parashar, Katherine Hawes, B. Y. Jeong

- 9:00 Barbara Montwill**
BIOSECURITY AS A TOOL TO AVOID TRADE PROBLEMS
- 9:20 OUT Adrian G. Hartley**, Enass Al Kharousi, Jasim Al Shihi, Andrew Kwarteng, Ghazi Al Rawas, Chitrini Mozumder
SUSTAINABLE DEVELOPMENT OF AQUACULTURE AND FISHERIES IN MUSANDAM, SULTANATE OF OMAN – A GIS BASED APPROACH
- 9:40 Alka Parashar**
ADOPTATION OF AQUACULTURE IN TAWA COMMAND REGION INDIA: RESPONSIBLE LAND USE MANAGEMENT FOR PROFIT AND SUSTAINABILITY
- 10:00 Xuan Dong**, Hongsheng Yang, Yuming Feng, Jun Liang
APPLICATION OF DNA BARCODING ON SEA URCHIN IDENTIFICATION AND IUU REGULATION

FISH MEAL AND OIL

Saturday, May 30 9:00 - 12:30 Halla Hall A

Chairs: Roger Gilbert, Chris Carter, S. M. Lee

- 9:00 Roger Gilbert**
SETTING A GLOBAL BENCHMARK FOR FEED PRODUCTION
- 9:20 Sunghoon Kim**, Jiyoung Shin, Heung-soo Yu, Jinhee Kim, Ji-young Yang
ANALYSIS AND UTILIZATION OF LIPID FROM FISH BY-PRODUCT
- 9:40 Jan Schmidt**, Vanessa I. Fuchs, Mathew J. Slater, Bela H. Buck
CAN GLUCAN SUPPLEMENTATION COMPENSATE GROWTH LOSS IN STARRY FLOUNDER *Platichthys stellatus* FED FISHMEAL-REDUCED DIETS?
- 10:00 Hee Sung Kim**, Sung Hwoan Cho
SUBSTITUTION EFFECTS OF FISHMEAL WITH TUNA BYPRODUCT MEAL IN THE DIET ON GROWTH, BODY COMPOSITION, PLASMA CHEMISTRY AND AMINO ACID PROFILES OF JUVENILE OLIVE FLOUNDER *Paralichthys olivaceus*
- 10:20 Chris Carter**, Alexander Shu-Chien, Han Wan-Yin, Cedric Simon, Basseer Codabaccus, Quinn Fitzgibbon, Kuah Meng-Kiat, Tomar Ventura, Stephen Battaglione
FISH OIL REPLACEMENT IN FEEDS FOR JUVENILE SPINY LOBSTERS: LIPID METABOLISM IN THE EASTERN ROCK LOBSTER *Sagmariasus verreauxi*

SATURDAY

PHYSIOLOGY, MORPHOLOGY AND HISTOLOGY

Saturday, May 30 9:00 - 12:30 Room 301

Chairs: Juan Pablo Lazo, Chris Carter, K. S. Choi

- 9:00** **Adriana Rodríguez**, Jaime Suárez
THE EFFECTS OF SALINITY ON PHYSIOLOGICAL CONDITIONS IN JUVENILE SWORDSPINE SNOOK *Centropomus ensiferus*
- 9:20** **Kjell Nilssen**, Marte Berg Holtan, Rina Chakrabarti
PLASMA MELATONIN PROFILES IN COMMON CARP *Cyprinus carpio* EXPOSED TO INDOOR PHOTOPERIODS
- 9:40** **Yew-Hu Chien**, Ssh-Yu Chen
EFFECTS OF VARIOUS ILLUMINATION ON GROWTH, FEEDING AND PIGMENTATION OF WHITE SHRIMP *Litopenaeus vannamei*
- 10:00** **BREAK**
- 11:10** **Honghao Zhao**, Zexia Gao
LEPTIN GENES IN BLUNT SNOUT BREAM: CLONING, PHYLOGENY, EXPRESSION CORRELATED TO GONADS DEVELOPMENT
- 11:30** **Jaturong Matidtor**, Krisna R. Torrissen, Saengtong Pongjareankit, Sudaporn Tongsiri, Jiraporn Rojtinnakorn
GARLIC EXTRACT ENHANCING PHYSIOLOGY OF DIGESTIVE SYSTEM IN JUVENILE MARBLE GOBY *Oxyllotris marmorata*

AQUACULTURE AND ENVIRONMENTAL CHANGE

Saturday, May 30 9:00 - 15:40 Halla Hall B

Chairs: Jay Parsons, Kyeong-Jun Lee, Sanaz Khosrami

- 9:00** **Yongwen Gao**
THE EFFECTS OF OCEAN ACIDIFICATION FROM ANALYSES OF SEA SCALLOP SHELLS
- 9:20** **Taewon Kim**, Jung-A Lee
EFFECTS OF OCEAN ACIDIFICATION AND HYPOXIA ON BEHAVIOR AND SPECIES INTERACTION OF FISHERIES SPECIES

- 9:40 Sedercor Melatunan**, Lauren Gourski, Shelly Pattipeiluhu, Christopher Bird
UP AND DOWN REGULATION OF METABOLIC RATES AND mRNA
TRANSCRIPTION OF EASTERN OYSTER *Crassostrea virginica* UNDER SHORT-
TERM EXPOSURE TO OCEAN ACIDIFICATION AND ELEVATED TEMPERATURE
- 10:00 Nantaporn Sutthi**, Phimphakan Lebel, Louis Lebel
THERMAL-TOLERANCE AND PREFERENCES OF KEY SPECIES AND CLIMATE
CHANGE ADAPTATION OPTIONS FOR INLAND AQUACULTURE IN NORTHERN
THAILAND
- 10:20 Claude E. Boyd**, Aaron McNevin
ENVIRONMENT BENEFITS OF INTENSIFICATION OF AQUACULTURE
PRODUCTION
- 10:40 BREAK**
- 11:10 Chul-hoon Hong**, J. P. Kim
SEA LEVEL RESPONSE TO TYPHOONS AT NAMCHUN BAY IN BUSAN
PART I. A SYNOPTIC VIEW OF THE SEA LEVEL VARIATION
- 11:30 Jin-Pyo Kim**, C. H. Hong
SEA LEVEL RESPONSE TO TYPHOONS AT NAMCHUN BAY IN BUSAN
PART II. THE 2ND PEAKS IN THE SEA LEVEL VARIATION
- 11:50 Aad Smaal**, Brenda Walles, Shah Chowdhury, Tom Ysebaert
SHELLFISH AS ECO-ENGINEERS FOR COASTAL PROTECTION AND
EXPLOITATION
- 12:10 Chamilani Nikapitiya**, *Ihn-Sil Kwak*
EFFECT OF ENVIROMENTAL CHANGES ON THE EXPRESSION OF CHITINASE
GENES IN AN INTERTIDAL MUD CRAB *Macrophthalmus japonicus*
- 12:30 LUNCH**
- 14:00 Anuwat Uppanunchal**, Dr. Chusit Apriumanekul, Dr. Louis Lebel
PLANNING PRODUCTION OF FRESHWATER FISH FRY FOR AQUACULTURE IN
A SEASONAL, VARIABLE AND CHANGING CLIMATE IN NORTHERN THAILAND
- 14:20 Meilisha Pertiwi**, Mufti Patria
FISH COMMUNITY STRUCTURE IN MANGROVE FOREST OF PANJANG
ISLAND, BANTEN BAY
- 14:40 Nghia Nguyen Huu**, Phuong Do Minh
MODEL DEVELOPMENT FOR ASSESSMENT OF CLIMATE CHANGE IMPACTS
TO AQUACULTURE SYSTEMS IN NGHE AN PROVINCE, VIETNAM

DIGESTIVE ENZYMES IN FISH

Saturday, May 30 9:00 - 12:30 Room 303

Chairs: Rina Chakrabarti, T. J. Nam

- 9:00** **Manuel Yúfera**, Carmen Mavarro-Guillén, José A. Mata-Sotres, Francisco J. Moyano, Gonzalo Martínez-Rodríguez
DIGESTIVE RHYTHMS IN FISH LARVAE AND JUVENILES – FROM MOLECULAR GENE EXPRESSION TO ENZYMATIC ACTIVITY
- 9:20** **Luis Conceição**, Nadège Richard, Sofia Engrola
TRACER STUDIES AS A TOOL TO ASSESS PROTEIN DIGESTIVE CAPACITY DURING ONTOGENY OF FISH LARVAE
- 9:40** **Juan Pablo Lazo**, Pablo Fuentes, Benjamin Baron-Sevilla
THE EFFECT OF LIPID TYPE ON LIPID DIGESTION ENZYMES DURING LARVAL DEVELOPMENT IN CALIFORNIA HALIBUT *Paralichthys californicus*
- 10:00** **Mikhail Solovyev**, Enric Gisbert
INFLUENCE OF TIME AND TEMPERATURE STORAGE AND THAWING/FREEZING CYCLES ON THE ACTIVITY OF DIGESTIVE ENZYMES IN GILTHEAD SEA BREAM *Sparus aurata*
- 10:20** **Kjell Nilssen**, M R Ngsainao, J G Sharma, S K Srivastava, S. Chandra, K S Moirangthem, B K Khangembam, S K Verma, R. Chakrabarti
FOOD SELECTION AND GUT ENZYME LEVELS IN GOLDEN MAHSEER, SNOW-TROUT AND HILL-TROUT INHABITING RIVER LADHIYA, NORTHERN INDIA
- 10:40** **BREAK**
- 11:10** **Rina Chakrabarti**, M. R. Ngasainao, K. J. Nilssen, J. G. Sharma, S. Verma
EVALUATION OF MAJOR DIGESTIVE ENZYMES IN *Schizothorax richardsonii* DURING ONTOGENESIS
- 11:30** **Jaigopal Sharma**, Ashok Kumar, Deepak Saini, Nawang Lendup Targay, Bronson Kumar Khangembam, Rina Chakrabarti
PLANT PROTEINS AND THEIR *IN VITRO* DIGESTIBILITY IN CARPS USING pH-STAT METHOD

ECONOMICS, MANAGEMENT, MARKETING AND TRADE

Saturday, May 30 11:10 - 15:40 Samda Hall B

Chairs: Carole R. Engle, S. K. Park

- 11:10 Carole R. Engle**
STRATEGIC MARKETING AND FINANCIAL MANAGEMENT FOR PROFITABLE
AQUACULTURE BUSINESSES
- 11:30 Carole R. Engle, Jonathan van Senten**
A FRAMEWORK FOR ANALYZING THE ECONOMIC EFFECTS OF THE SUITE OF
REGULATIONS FACING AQUACULTURE PRODUCERS
- 11:50 Bernadette Fregene, Adeyinka Abiona, Bolarin Omonona**
DETERMINANTS OF RURAL HOUSEHOLD DEMAND FOR FISH IN
COMMUNITIES OF WATER AND NON-WATER BODIES OF OYO STATE,
NIGERIA
- 12:30 LUNCH**
- 14:30 Jianzhen Lu, Kai Wang**
WHY TILAPIAS FROM CHINA ARE THE CHEAPEST? AN ANALYSIS BASED ON
STATISTICS
- 14:50 Lirong Xing, Xiang Xu**
ANALYSIS OF CHINA TILAPIA PRODUCTS EXPORTS COMPETITIVENESS
BASED ON CMS MODEL
- 15:10 Madan Dey, Oai Li Chen**
ANALYSIS OF SCANNER DATA ON SEAFOOD PRODUCTS IN THE UNITED
STATES: IMPLICATIONS FOR GLOBAL AQUACULTURE AND FISHERIES
INDUSTRY

SATURDAY

GENERAL AQUACULTURE

Saturday, May 30 9:00 - 12:30 Room 302

Chairs: Kaippilly Dinesh, B. S. Lim, J. M. Kim

- 9:00 Luke A. Roy**, Jeonghwan Park, Anita M. Kelly, Carl D. Webster, Herbert E. Quintero, Alf Haukenes, Nathan Stone, Matthew Recsetar
THE EFFECT OF DIFFERENT WINTER FEEDING REGIMES ON SURVIVAL, GROWTH, AND LIPID COMPOSITION OF CENTRARCHIDS AND BAITFISH IN ARKANSAS
- 9:20 Pedro Pousão-Ferreira**, Laura Ribeiro, Ana Candeias Mendes, Margarida Gamboa, Sara Castanho, Marisa Barata, Hugo Quental Ferreira, Maria Emilia Cunha, Florbela Soares, Sara Costa, Margarida Saavedra, Margarida Sá Freire, Amparo Gonçalves, Teresa Gama Pereira, Maria Leonor Nunes, Narcisa M. Bandarra
RESEARCH ON PRODUCTION AND VALORIZATION OF MEAGRE *Argyrosomus regius* IN PORTUGAL
- 9:40 Beata Sarosiek**, Katarzyna Dryl, Katarzyna Palinska-Zarska, Daniel Zarski
INFLUENCE OF INHIBITION OF ACID PHOSPHATASE, LACTATE DEHYDROGENASE AND b-N-ACETYLOGLUCOSAMINIDASE ON EFFECTIVE FERTILIZATION OF PERCH *Perca fluviatilis* L.
- 10:00 Beata Irena Cejko**, Beata Sarosiek, Miroslaw Szczepkowski, Bozena Szczepkowska, Stefan Dobosz, Joanna Grudniewska, Sylwia Judycka, Radoslaw Kajetan Kowalski
APPLICATION OF AIR SPAWNING IN DIFFERENT FRESHWATER SPECIES – EFFECT ON GAMETE QUALITY AND POST SPAWNING MORTALITY
- 10:20 Abdul Jabbar A F Memon**, Muhmmad Hanif Soomro, Mansoor Zafar, Abdul Malik, Athar Mian Ishaqui
TO EVALUTE GROWTH PERFORMANCE OF MILKFISH *Chanos chanos* (FORSSKÅL, 1755) FINGERLING APPLIED RANGE OF FOOD TREATMENTS IN CAPTIVITY
- 10:40 BREAK**
- 11:10 Gerhard van der Horst**, Monique Bennett, Maryna de Kock
COMPUTER AIDED SPERM ANALYSIS IN BROADCAST SPAWNERS: ASSESSMENT OF SPERM FUNCTION
- 11:30 Mahmoud Nafisi Bahabadi**
OVERVIEW OF COLDWATER FISH AQUACULTURE RAPID GROWTH IN IRAN

AQUACULTURE IN KOREA

Saturday, May 30 9:00 - 15:40 Samda Hall A

Chairs: Ik Kyo Chung, Mahmoud Mohseni

- 10:00 Mahmoud Mohseni**
A REVIEW ON AQUACULTURE DEVELOPMENT IN IRAN
- 10:30 In Bon Goo**, Hee Jeong Kong, Sang Gu Lim, Hyung Kyun Han, In-Seok Park
EARLY GONADOGENESIS AND SEX DIFFERENTIATION IN THE KOREAN ROSE BITTERLING *Rhodeus uyekii*
- 10:50 BREAK**
- 11:10 Hyeonho Yun**, Erfan Shahkar, Inkwon Jang, Sukyong Kim, Sungchul C. Bai
A REVIEW ON THE NUTRIENT REQUIREMENTS OF JUVENILE WHITELEG SHRIMP *Litopenaeus vannamei*
- 11:30 Seonghun Won**, Youngjin Park, Hyeonho Yun, Seung-han Lee, Sungchul C. Bai
EFFECTS OF DIETARY PROBIOTICS ON GROWTH PERFORMANCE AND NON-SPECIFIC IMMUNE RESPONSES IN RAINBOW TROUT *Oncorhynchus mykiss*
- 12:00 LUNCH**
- 14:00 Thi Thu Thao Ngo**, Tran Ngoc Hai, Cao My An, Le Thi Thu Anh
EFFECTS OF GLUCOSE SUPPLEMENTATION DURING PRESERVATION OF JUVENILE BLOOD COCKLE *Anadara granosa*
- 14:30 Hye Mi Lee**, Kon Tak Yoon, Heung Sik Park, Kwang Sik Choi
RECRUITMENT PATTERN AND GROWTH OF PACIFIC OYSTER *Crassostrea gigas* AT A ROCKY INTERTIDAL HARD BOTTOM AND SUSPENDED RACK CULTURE FACILITY IN THE HEBEI SPIRIT OIL SPILL SITE ON THE WEST COAST OF KOREA
- 14:50 Han Gil Choi**, Yeon Ju Na, Hyun Il Yoo, Mi Sook Hwang, Jae Min Baek, Young Sik Kim
RECENT RESEARCH AND CULTIVATION TECHNIQUES FOR *Undaria pinnatifida* IN KOREA
- 15:10 Grace Njagi**, Hyeonho Yun, Yuri Jo, Sungchul C. Bai
EFFECTS OF DIETARY YUCCA *Schidigera saponin* ON GROWTH PERFORMANCE, IMMUNE RESPONSES AND DISEASE RESISTANCE IN JUVENILE NILE TILAPIA *Oreochromis niloticus*

15:30 Chun-Woo Lee, Jihoon Lee, Subong Park, Gebremeskel Eshetu Kebede
DYNAMIC SIMULATION EXAMPLES FOR VARIOUS FISH CAGE SYSTEM
USING NUMERICAL MODEL

SEAFOOD IN KOREA

Saturday, May 30 9:00 - 15:40 Room 402
Chairs: Y. T. Kim, P. J. Park, W. K. Jung, J. Y. Je

- 9:00 Eun-A Kim**, Ji-Hyeok Lee, Nalae Kang, WonWoo Lee, Jae-Young Oh,
Ju-Young Ko, Hye-Won Yang, You-Jin Jeon
ANTI-DIABETIC ACTIVITY OF DIECKOL (MARINE ALGAL POLYPHENOL) IN
HYPERGLYCEMIA ZEBRAFISH MODEL
- 9:20 Van-Tinh Nguyen**, Nam Gyu Park, Won-Kyo Jung
Ciona intestinalis CALCITONIN ENHANCES DIFFERENTIATION AND
MINERALIZATION OF OSTEOBLASTIC MC3T3-E1 CELLS THROUGH MAPK
PATHWAY
- 9:40 Soo Yeon Park**, Eui Jeong Han, Ju Hyung Um, You-Jin Jeon, Ginnae Ahn,
Chang-Bum Ahn
HEPATOPROTECTIVE PEPTIDE FRACTION FROM KRILL *Euphausia superba*
PROTEIN HYDROLYSATES BY PEPTIC HYDROLYSIS
- 10:00 Pathum Chandika**, Won-Kyo Jung
DEVELOPMENT AND CHARACTERIZATION OF THREE DIMENSIONAL
SCAFFOLD FROM MARINE ORIGINATED COLLAGEN/ALGINATE AND
CHITOOIGOSACCHARIDES FOR SKIN TISSUE ENGINEERING APPLICATION
- 10:20 Hyun-Soo Kim**, Ji-Hyeok Lee, Ju-young Ko, WonWoo Lee, You-Jin Jeon
PURIFICATION OF BIOACTIVE PEPTIDES FROM DIGESTIVE HYDROLYSATES
OF CUTLASS FISH MUSCLE
- 10:40 BREAK**
- 11:10 Hae-Na Han**, Young-Mog Kim, Eun-Hye Lee, Sung-Hwan Eom
THE EFFECTS OF POLYPHENOL CONTENT AND ANTIOXIDANT ACTIVITY OF
BROWN ALGA *Eisenia bicyclis* EXTRACT FERMENTED BY PROBIOTICS
- 11:30 Sung Hwan Park**, Hyun Ji Lee, Sang In Kang, Gyoon-Woo Lee, In Seong Yoon,
Min Joo Kim, Jin-Soo Kim, Min Soo Heu
CHEMICAL COMPOSITIONS AND FUNCTIONAL PROPERTIES OF PROTEIN
CONCENTRATES FROM FISH ROE RESIDUES AFTER WATER EXTRACTION

- 11:50 Jin-Woo Hwang**, Pyo-Jam Park, Yon-Suk Kim, Eun-Kyung Kim, Seong-Eun Kim, Young-Ki Han, Bo-Im You, Nam-Joo Jeon
ANTIOXIDANT ACTIVITY OF EXTRACTS FROM FERMENTED *Haliotis discus hannai* WITH *Cordyceps militaris* MYCELIA
- 12:10 Seo-Young Kim**, Ji-Hyeok Lee, Ju-Young Ko, Eun-A Kim, Nalae Kang, WonWoo Lee, You-Jin Jeon
PHLOROTANNINS ISOLATED FROM *Ecklonia cava* INDUCE DIFFERENTIATION AND GROWTH FACTORS OF MYOBLASTS G2C12
- 12:30 LUNCH**
- 14:00 Gun-Woo Oh**, Seok-Chun Ko, Won-Kyo Jung
A NOVEL PEPTIDE PURIFIED FROM THE FERMENTED MICROALGA *Pavlova lutheri* ATTENUATES OXIDATIVE STRESS AND MELANOGENESIS IN B16F10 MELANOMA CELLS
- 14:20 Pyo-Jam Park**, Eun-Kyung Kim, Yon-Suk Kim, Jin-Woo Hwang, Bo-Im You, Nam-Joo Jeon
PURIFICATION AND CHARACTERIZATION OF BIOACTIVE PEPTIDES FROM VARIOUS SHELLFISHES
- 14:40 Wonwoo Lee**, You-Jin Jeon
RADIOPROTECTIVE EFFECT OF A POLYSACCHARIDE ISOLATED FROM SEAWEEDES IN GAMMA RAY-IRRADIATED SPLENOCYTES
- 15:00 Gwang-Woo Kim**, Soon-Yeong Cho, Yutaka Itabashi
OCCURRENCE OF CYCLIC FATTY ACIDS IN THE RED ALGA *Solieria pacifica* (YAMADA) YOSHIDA
- 15:20 Jung Kwon Lee**, Hee-Guk Byun
NEUROPROTECTIVE EFFECT OF COMPOUND FROM *Eisenia bicyclis* ON AMYLOID BETA PEPTIDE-INDUCED TOXICITY IN NEURON CELLS

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