

WEDNESDAY, July 3

FRESHWATER AQUACULTURE

Wednesday, July 3 13:50 - 17:20 Crystal 5 Chairs: Jean-Yves Mevel, Denni D. Indradjaya

- 13:50 Abubakar Umar Muhammad, Nur Adeela Yasid, Hassan Mohd Daud,
 Mohd Yunus Abd Shukor
 BEHAVIORAL CHANGES AND GILL HISTOPATHOLOGICAL ALTERATIONS OF
 RED HYBRID TILAPIA Oreochromis sp. EXPOSED TO GLYPHOSATE HERBICIDE
- **14:10** A R Amalin-Sofea, Nur Nazifah Mansor ESTABLISHMENT OF DISEASE: PATHOGENICITY, LD50 AND CLINICAL SIGNS OF MARINE TILAPIA AGAINST Vibrio parahaemolyticus
- 14:30 Irfan Hakimi Roslan, Nur Nazifah Mansor, Mohd Firdaus Nawi, Azila Abdullah, Hazreen Nita Mohd Khalid EFFECT OF LOW TEMPERATURE ON PATHOGENICITY AND TCID50 OF Oreochromis spp. AGAINST BETANODAVIRUS INFECTION
- 14:50 Mary Jessa Bell Pagapulan, Rex Ferdinand Traifalgar
 GROWTH PERFORMANCE OF VARIOUS STRAINS OF SALINE TOLERANT
 TILAPIA REARED IN COASTAL SALINE PLASTIC-LINED PONDS
- 15:10 Widya Puspitasari, Atri Triana, Ari Prakoso
 REVIEW OF GROWTH AND SURVIVAL RATE OF SALINE TILAPIA WITH
 DIFFERENT INITIAL STOCKING WEIGHT
- 15:30 BREAK

- 16:00 Fredson Huervana, Kelee Ira Nodque, Nantong Cedric Jay,
 Rex Ferdinand Traifalgar, Rizza Mae Guyapale
 OPTIMIZING STOCKING DENSITIES FOR NURSERY CAGE CULTURE OF
 TROPICAL ANGUILLID EEL Anguilla marmorata IN PHILIPPINE BRACKISHWATER
 PONDS
- 16:20 Kelee Ira Nodque, Fredson Huervana, Cedric Jay Nantong, Rex Ferdinand Traifalgar DIETARY TRANSITION OF TROPICAL ANGUILLID EEL Anguilla marmorata LARVAE FROM FISH MEAT TO FISH MEAL BASED FORMULATED FEED: A PRELIMINARY EVALUATION
- 16:40 Cedric Jay Nantong, Fredson Huervana, Kelee Ira Nodque, Rizza Mae Guyapale, Rex Ferdinand Traifalgar EVALUATING THE DIETARY TRANSITION OF TROPICAL ANGUILLID EEL Anguilla marmorata ELVER FROM DOUGH TO CRUMBLE DIETS
- 17:00 Hanis Abd Mohmin, Ching Fui Fui, Senoo Shigeharu
 EFFECTS OF HORMONAL TREATMENTS ON TESTIS DEVELOPMENT AND
 SPERM QUALITY OF HATCHERY CULTURED MALE EELS Anguilla bicolor

SEA CUCUMBERS AND SEA URCHINS

Wednesday, July 3 13:50 - 17:20 Diamond 5 Chairs: Anabelle Dece, A. Espadero, Mulyanto

- 13:50 Wilfredo Uy, Anabelle Dece Espadero, Hanzel Honghong
 GROWTH PERFORMANCE OF THE SANDFISH Holothuria scabra (JAEGER 1833)
 IN A COMMUNITY-MANAGED NURSERY SYSTEM IN NORTHERN MINDANAO,
 PHILIPPINES
- 14:10 Olivier Josh Caasi, Glaiza Ibañez, Marie Antonette Meñez EARLY RELEASE OF JUVENILE SANDFISH Holothuria scabra IN OCEAN NURSERY PENS
- 14:30 Jay R. Gorospe, Paul C. Southgate
 GROWTH AND SURVIVAL OF SANDFISH Holothuria scabra REARED IN
 OCEAN AND ADVANCED NURSERY PEN CULTURE PRODUCTION SYSTEMS:
 EXPERIENCES OF SEA CUCUMBER FARMERS FROM THE PHILIPPINES
- 14:50 Lisa Fajar Indriana, Andreas Kunzmann, Matthew James Slater
 ENHANCING GROWTH PERFORMANCE OF EARLY JUVENILE SEA CUCUMBER
 Holothuria scabra: THE ROLE OF FERMENTED FEED DIETS

Mai N. Thuy, Quang Dai Thanh Phuong, Nguyen Dinh Quang Duy, Monal M. Lal, Paul C. Southgate

INTEGRATED AQUACULTURE OF THE SEA CUCUMBER SANDFISH Holothuria scabra WITH SNUBNOSE POMPANO Trachinotus blochii FOR INCREASED PRODUCTION AND NUTRIENT RECYCLING

15:30 BREAK

16:00 Rachel Ravago-Gotanco, Deo Angelo Macahig, Monal Lal,
Marie Antonette Juinio-Meñez
POPULATION GENOMICS REVEALS GENETIC DIFFERENTIATION ACROSS
SMALL SPATIAL SCALES AMONG SANDFISH Holothuria (Metriatyla) scabra
POPULATIONS ALONG THE WESTERN LUZON COAST, PHILIPPINES

16:20 Rachel Ravago-Gotanco, Joselito Jr. Tabardillo, Deo Angelo Macahig,
Marie Antonette Juinio-Meñez
DELINEATING GENETIC STOCKS OF THE SANDFISH Holothuria (Metriatyla)
scabra: REGIONAL AND FINE-SCALE GENETIC STRUCTURE OF PHILIPPINE
POPULATIONS REVEALED BY GENOME-WIDE SNP MARKERS

SUSTAINABILITY OF THE SHRIMP INDUSTRY - PERSPECTIVE OF A MULTISPECIES ANIMAL GENETICS GROUP

Wednesday, July 3 13:50 - 17:20 Crystal 1 Chairs: Parisa Norouzitallab, Kartik Baruah, Frédéric Grimaud

13:50 Frédéric Grimaud

SUSTAINABILITY OF THE SHRIMP INDUSTRY: PERSPECTIVE FROM A MULTISPECIES ANIMALS GENETICS GROUP

14:10 Amri Yudhistira, I Kadek Ariawan
MORPHOMETRIC DIVERSITY OF PROSPECTIVE PARENT SHRIMP Penaeus
indicus DOMESTICATION RESULTS

- 14:30 Cédric Pincent, Florian Herry, Anastasia Bestin CURRENT AND NEW TECHNOLOGIES FOR SHRIMP BREEDING INDUSTRY
- 14:50 Bagus Rahmat Basuki, Alimuddin Alimuddin, Dinar Tri Soelistyowati, Sri Nuryati, Wendy Tri Prabowo IDENTIFICATION OF A POTENTIAL WSSV-RESISTANT SNP AND ITS POSSIBLE

IDENTIFICATION OF A POTENTIAL WSSV-RESISTANT SNP AND ITS POSSIBLE APPLICATION TO SELECTION OF WSSV-RESISTANT PACIFIC WHITE SHRIMP Litopenaeus vannamei

15:10 Bagus Rahmat Basuki, Alimuddin Alimuddin, Dinar Tri Soelistyowati, Sri Nuryati, Wendy Tri Prabowo
IMMUNE GENES EXPRESSION PATTERN OF PACIFIC WHITE SHRIMP

IMMUNE GENES EXPRESSION PALITERN OF PACIFIC WHITE SHRIMP Litopenaeus vannamei RESISTANT TO WHITE SPOT SYNDROME VIRUS

- 15:30 BREAK
- 16:00 Li Lian Wong, Zulaikha Mat Deris, Mhd Ikhwanuddin Abdullah, Yik Sung Yeong, Dinh Thinh Do, Chao Li, Asaduzzaman Md, Cher Chien Lau TRANSCRIPTOME SIGNATURE OF JUVENILE Litopenaeus vannamei CULTURED UNDER DIFFERENT SALINITY LEVELS IN RESPONSE TO Vibrio harveyi INFECTION
- 16:20 Hongxia Hu, Hailiang Song, Ying Dong, Tian Dong, Hua Zhu
 RESEARCH PROGRESS OF GENOMIC SELECTION IN AQUACULTURE
 BREEDING

SHRIMP DISEASES AND HEALTH MANAGEMENT

Wednesday, July 3 13:50 - 17:20 Crystal 3 Chairs: Ruth Garcia Gomez, drh. Toha, Heni Budi Utara

- 13:50 Anburaj Amaladoss, Wan Ying Koh, Kaelyne Tan, Syed Musthaq Syed Khader, Kadamb Patel, Lee Chee Wee CRISPR-BASED RAPID ONSITE PATHOGEN (CROP) TEST KIT FOR SHRIMP
- 14:10 Pande Gde Sasmita Julyantoro
 EVALUATION OF Bacillus spp. CAPABILITY TO DEGRADE THE TOXIN PROTEIN
 PRODUCED BY AHPND STRAIN Vibrio parahaemolyticus M0904
- 14:30 Alfa Astiana Afandy, Srinawati, Herawaty, Nur Muflich Juniyanto
 PREVALENCE OF Vibrio parahaemolyticus IN FARMED SHRIMP Penaeus vannamei
 AND ITS ANTIBIOTIC RESISTANCE PROFILE IN SOUTH SULAWESI
- 14:50 Si Mon Ong
 WHAT CAUSES SHRIMP IMMUNE SYSTEM CRIPPLE?
- 15:10 Olivier Decamp, Barbara Hostins, Peter De Shryver, Marcos Santos
 COST EFFICIENT MICROBIAL MANAGEMENT OF SHRIMP FARMING
- 15:30 BREAK

16:00 Bambang Hanggono, Didik Budi Nursanto

SHRIMP HEALTH MANAGEMENT IN PACIFIC WHITE SHRIMP *Litopenaeus* vannamei CULTURE USING MILLENNIAL SHRIMP FARMING (MSF) TECHNOLOGY IN INDONESIA (A CASE STUDY AT SITUBONDO DISTRICT, EAST JAVA)

16:20 Duy Hoa Nguyen

MANAGING SHRIMP DISEASE OUTBREAKS VIA BEST FARM-MANAGEMENT PRACTICES AND PREMIUM AND/OR FUNCTIONAL FEEDS

- 16:40 Endah Mardiastuti, Atri Triana Kartikasari, Widya Puspitasari
 HEPATOPANCREATIC MICROSPORIDIASIS CONTROL USING ALBENDAZOLE IN
 VANNAMEI SHRIMP *Litopenaeus vannamei* CULTURE AT BALAI LAYANAN USAHA
 PRODUKSI PERIKANAN BUDIDAYA (BLUPPB) KARAWANG
- 17:00 Bambang Hanggono, Arif Zaenuddin

THE EFFECTIVENESS OF SHRIMP EFFLUENT MANAGEMENT SYSTEM IN MILLENNIAL SHRIMP FARMING (MSF) TECHNOLOGY IN INDONESIA (A CASE STUDY AT SITUBONDO DISTRICT, EAST JAVA)

LARVICULTURE, LIVE-FEEDS AND HATCHERY MANAGEMENT

Wednesday, July 3 13:50 - 17:20 Diamond 1 Chairs: Amrit Bart, Diana Chan

13:50 Adriana Shazreen Mohd Sabri

EFFECTS OF FEEDING FREQUENCY ON THE PRODUCTION OF ROTIFER Brachionus plicatilis USING AUTOMATED BATCH CULTURE SYSTEM

14:10 Peter Van Wyk

ARE HIGH-QUALITY HATCHERY FEEDS STILL A GOOD VALUE IN AN ERA OF HISTORICALLY LOW PL PRICES?

- 14:30 Putri Ramdhani Ramdhani, Ahmad Rivai, Sarifin USE OF RESULT MAGGOT BIOCONVERSION AS GROWTH MEDIA FOR Moina sp. IN FRESHWATER
- 14:50 Abdul Gani, Rochman Subiyanto
 MAINTENANCE OF SEABASS LARVAES Lates calcarifer CLEAR WATER SYSTEM
 USING BREAD YEAST (BAKERY YEAST)
- 15:10 Muslimin, Dikrurahman, Saipul Bahri, Mutia Nur Hayati, Ikhsan Kamil, Faisal Andre Siregar SURVIVAL RATE OF SILVER POMPANO *Trachinotus blochii* LARVAE IN DIFFERENT REARING TANKS

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15:30 BREAK

- 16:00 Letizia Chiappi, Stefano Calloni, Geert Rombaut, Barbara Hostins, Tania De Wolf THE CRUCIAL ROLE OF MICROBIAL MANAGEMENT IN THE LIVE FEED DAILY PRACTICES: THE USE OF SANOCARE ACE-PRO TO DECREASE THE VIBRIO LOAD AND INCREASE THE QUALITY OF THE ARTEMIA
- 16:20 Baharuddin Bahar, Ramelan S. Pi, Bakhtiar Sah Putra THE PROVISION OF BEST QUALITY SEA BASS SEEDS Lates calcarifer IN ORDER TO EMPOWER AQUACULTURE COMMUNITY IN ACEH
- 16:40 Amrit Bart

UNLOCKING THE POTENTIAL OF PANGASIUS AND TILAPIA SEED PRODUCTION IN NEPAL: A CASE STUDY ON HATCHERY MANAGEMENT AND TRAINING (USAID/CRS FARMER TO FARMER PROGRAM)

17:00 Nurul Nadiah Masrialah, F.M. Yusoff, I. Natrah, W.A.D. Umi, S.A.R. Balqis, M.Z. Hassan, F. Mohamat-Yusuff OPTIMIZATION OF CALANOID COPEPOD *Pseudodiaptomus* sp. MASS CULTURE IN DIFFERENT SALINITY AND TEMPERATURE

AQUACULTURE ENGINEERING, WASTE RECYCLING AND TREATMENTS

Wednesday, July 3 13:50 - 17:20 Diamond 3 Chairs: Norulhuda M. Ramli, Bambang Gunadi

13:50 SPi Rusel

OPTIMIZING THE STOCKING DENSITY OF TILAPIA Oreochromis niloticus BY USING NITROBACTER AS A COMPLEMENTARY BACTERIA IN TILAPIA CULTURE ACTIVITY USING THE BIOFLOC SYSTEM

14:10 Hendrianto, Andi, Reza Darzona, Endang Wijayanti, Ikhsan Kamil, Faisal Andre Siregar

USE OF THE TEMPERATURE SHOCK RECIRCULATION SYSTEM IN SEABASS Lates calcarifer REARING CULTURE FOR CONTROL OF VIRAL NERVOUS NECROSIS OUTBREAKS

14:30 Gianmarco David, Vander Bruno dos Santos, Katharina Eichbaum Esteves, Marcos Vinicius Bozzo Diorio

PLASTIC APPLICATIONS IN BRAZILIAN TILAPIA AQUACULTURE

- 14:50 Agus Suriawan, Didik Budi Nursanto
 IMPLEMENTATION OF A FLOWTHROUGH WATER REPLACEMENT SYSTEM IN
 THE CULTIVATION OF WHITE SHRIMP Litopenaeus vannamei IN THE SUMBAWA
 REGENCY SHRIMP FARM CLUSTER
- 15:10 Budi Kurnia, Sunardi, Agus Dwiono, Harry Wuwungan PRODUCTION STRATEGY ON PANGASIUS *Pangasianodon hypopthalmus* NURSERY AT BALAI LAYANAN USAHA PRODUKSI PERIKANAN BUDIDAYA KARAWANG
- 15:30 BREAK
- 16:00 Ari Prakoso, M. Tahang, Heru Nugroho, Atri Triana
 THE MODELLING OF SALINE TILAPIA AQUACULTURE (BINS) AT BLUPPB
 KARAWANG
- 16:20 Widya Puspitasari, Ari Prakoso, Agus Dwiono THE EFFECTIVENESS OF AUTOMATIC FEEDER UTILIZATION IN SALINE TILAPIA AQUACULTURE AT BLUPPB KARAWANG
- 16:40 ShengXiang Xu, Alexander Munyaev, Ing-Jer Huang, Li-Lian Liu INSIGHTS INTO CLAM BEHAVIOR: A NOVEL MONITORING SYSTEM FOR CLAM CUI TURE
- 17:00 Dadan Kurnia Wibawa, Dasep Hasbullah, Endah Soetanti
 SEA GRAPES Caulerpa spp. CULTURE IN A CONTROLLED TANK AS A
 CULTURE DEVELOPMENT EFFORTS IN THE KARAWANG REGION, WEST JAVA
 PROVINCE, INDONESIA

NUTRITION, FEED INGREDIENTS, FEED ADDITIVES AND FEED TECHNOLOGY

Wednesday, July 3 13:50 - 17:20 Ballroom Chairs: Ronnie Tan Kean Hui, Dedi Jusadi, Kartik Baruah, Desy Putri Handayani, Le Boucher Richard

- 13:50 Hogne Abrahamsen, Rikke Sommerlund, Isak Bøgwald
 THE NOVEL RAW MATERIAL Calanus finmarchicus IS A RESOURCE OF
 FUNCTIONAL PRODUCTS FOR GROWTH AND HEALTH OF WHITELEG SHRIMP
 Litopenaeus vannamei
- 14:10 Henry Wong, Yufan Zhang, Xuanshu He, Anqi Chen, Zhihong Liao, Gang Lin, Jin Niu DIETARY ORGANIC ZINC POSITIVELY AFFECTS GROWTH, ANTIOXIDANT CAPACITY AND LIPID STORAGE IN JUVENILE LARGEMOUTH BASS Micropterus salmoides

- 14:30 Henry Wong, Junru Hu, Zhixiong Xu, Lirong Bai, Yufan Zhang EVALUATION OF LARGEMOUTH BASS *Micropterus salmoide* FED SELENIUM YEAST DIETS: GROWTH, HISTOPATHOLOGY, ANTIOXIDANT ABILITY, AND APOPTOSIS
- 14:50 I-Tung Chen, Elissavet Arapi, Maria M. Isern-Subich, Joanne Cable, Antoni Ibarz, Waldo G. Nuez-Ortín IMPROVING SKIN HEALTH OF FISH VIA SUPPLEMENTATION OF A PHYTOBIOTIC-BASED ADDITIVE
- 15:10 François Jegou
 FEED FORMULATION TO MITIGATE SHORT AND LONG-TERM IMPACTS OF
 STRESSORS ON HEALTH AND PERFORMANCE IN AQUACULTURE
- 15:30 BREAK
- 16:00 Minh Anh Pham, Ngoc Thao Truong, Marc Campet
 A PROPER EARLY LIFE NUTRITION PROGRAM IMPROVES PERFORMANCE OF
 TILAPIA IN INTENSIVE FARMING SYSTEM
- 16:20 Le Boucher Richard, Weiqiang Chung, Lydia Tan Shun En, Tze Hann Ng, Woon Rong Ben Neo, Jessalin Ng Kai Lin, Kar Chun Lee, Chenyi Wu, Co Sin Lee DIGESTIBILITY OPTIMIZATION OF SINGLE-CELL PROTEIN INGREDIENTS IN ASIAN SEABASS Lates calcarifer AND SALINE TILAPIA Oreochromis mossambicus
- 16:40 Natasha Shanna Jefferson, Annita Seok Kian Yong, Wahidatul Husna Zuldin GROWTH PERFORMANCE OF HYBRID GROUPER (*Epinephelus fuscoguttatus* ♀ × *E. lanceolatus* ♂) FED WITH DIFFERENT PROTEIN LEVEL DIET IN GROW-OUT SYSTEM
- 17:00 Geoffrey Bell, An Grobler, Ana Alfaro-Chávez, Paul Attfield, Philip Bell LOWER COST AND MORE SUSTAINABLE PRODUCTION OF HIGH VALUE SINGLE CELL PROTEIN THAT HAS BEEN OPTIMISED AS A FISHMEAL REPLACEMENT

ECONOMICS, VALUE CHAIN DEVELOPMENT, MARKETING AND TRADE, INVESTMENT, POLICY AND REGULATIONS

Wednesday, July 3 13:50 - 17:20 Diamond 4 Chairs: Alistair Douglas, Agus Heri Purnomo, James A. Young

- 13:50 Atikah Nurhayati, Titin Herawati, Budi Wardono
 SEAWEED ECOSYSTEM BASED ON INCLUSION SOCIO ECONOMIC VALUE FOR
 COASTAL COMMUNITY
- 14:10 Budiati Prasetiamartati, Burhanuddin, Kenidas Lukman Taufik, Agus Fani Faisol, Viga Ananda Wicaksono, Deddy Poerba Anggara, Anton Immink, Dane Klinger A MULTI-STAKEHOLDER INITIATIVE TO IMPROVE SHRIMP AQUACULTURE ACROSS A WHOLE JURISDICTION: THE SHRIMP IMPROVEMENT PROGRAM IN BANYUWANGI, INDONESIA

14:30 James A. Young

APPROACHES TO DIFFERENTIATING AQUACULTURE PRODUCTS WITHIN THE GLOBAL MARKET FOR SEAFOOD

- 14:50 Tariku Hailu, Minwyelet Mingist, Alemken Berihun, Birtukan Tsegaye, Yibeletal Aynalem THE CURRENT FISH PROCESSING AND MARKETING OF LAKE TANA: SURVEY
- 15:10 Habson Batubara, Mohammad Syaichudin, Lisa Mery, Patawari, Sitti Faridah, Akmal, Hamzah, Lideman, Yuani Mundaya, Muslimin, Kamaruddin, Iman Sudrajad, Syamsul Bahri, Herlina Jompa, Nani Undap, Joula Sondack, Abdul Gafur, Suciati, Arfandi Amin, Elisa Winanda IMPLEMENTATION OF UNCLOS 1982 ON CAPTURE FISHERIES BUSINESS IN

IMPLEMENTATION OF UNCLOS 1982 ON CAPTURE FISHERIES BUSINESS IN CASES OF ILLEGAL FISHING IN THE WATERS OF THE INDONESIAN EXCLUSIVE ECONOMIC ZONE (IEEZ)

15:30 BREAK

16:00 Abhiniti Vats

JURISDICTIONAL JOURNEYS: LEGAL CHALLENGES AND OPPORTUNITIES IN TRANSBOUNDARY AQUACULTURE MANAGEMENT

16:20 Trini Pratiwi

ENHANCING MARKET VISIBILITY AND ACCESS FOR SEAFOOD SMALLHOLDERS: THE NEXUS OF SUSTAINABLE SOURCING AND LEADING IMPROVEMENT PROGRAMS

AQUACULTURE

THURSDAY, July 4

INFORMATION TECHNOLOGY IN AQUACULTURE

Thursday, July 4 09:00 - 10:40 Diamond 5 Chairs: Regis Bador, Christian Maikel

- 09:00 Arman Faries, Bambang Hanggono, Fatmawati, Bagus Satria R.
 UTILIZING OPEN SOURCE APPLICATIONS TO BUILD SMART AQUACULTURE
- 09:20 Andrew Campbell
 WE DON'T KNOW WHAT WE DON'T KNOW HOW THE USE OF INFORMATION
 TECHNOLOGY COMBINED WITH OPERATIONAL TECHNOLOGY IS CHANGING
- 09:40 Ciaron P. McKinley, Daniel Peñalosa Martinell
 THE FUTURE OF SHRIMP FARMING: UNLOCKING FINANCIAL SERVICES
 THROUGH DATA TECHNOLOGIES
- 10:00 Regis Bador
 THE SINCERITY OF THE DATA: AN ESSENTIAL CONDITION TO ACHIEVE
 PRECISION SHRIMP FARMING AND OPTIMIZE COST AND PRODUCTIVITY,
 ESPECIALLY WHEN USING INTELLIGENT DATA ANALYSIS
- 10:20 Sherif Sadek, Baraka Kalangahe, Peter Mrope, Farida Buzohera, Hervé Lucien-Brun A CASE STUDY OF THE SUSTAINABLE IN-POND RACEWAY SYSTEM (IPRS) PRINCIPLES IN TANZANIA

FRESHWATER AQUACULTURE - CONTINUED

Thursday, July 4 09:00 - 10:40 Crystal 5 Chairs: Jean-Yves Mevel, Denni D. Indradjaya

- 09:00 Dahlan, Yuliastuti, Agus Dwiono, Nurul Ichsan BACKYARD SMALL SCALE CATFISH Clarias sp. NURSERY TECHNIQUES MANAGEMENT
- 09:20 Francis Wowor, Ezra Wowor, Verry Pandey
 DOMESTICATION OF SNAKEHEAD FISH, Channa striata Blkr, AS AN
 OPTIMIZATION EFFORT AT THE TATELU FRESHWATER AQUACULTURE
 CENTER

09:40 Talib Hussain, Fayyaz Rasool

ISOLATION AND MOLECULAR DETECTION OF VIRULENCE AND ANTIMICROBIAL RESISTANCE GENES OF PATHOGENIC *Escherichia coli* ISOLATED FROM FARM RAISED CARPS OF FISH FARMS OF KASUR AND MUZAFFARGARH. PAKISTAN

SHRIMP DISEASES AND HEALTH MANAGEMENT - CONTINUED

Thursday, July 4 09:00 - 12:20 Crystal 3 Chairs: Ruth Garcia Gomez, drh. Toha, Heni Budi Utara

- 09:00 Lukman Hakim, Syauqy Nurul Aziz
 PREDICTING VANNAMEI SHRIMP SURVIVAL RATE WITH MACHINE LEARNING:
 A NOVEL APPROACH FOR OPTIMIZING SHRIMP FARMING
- 09:20 Nolwenn Callac, Carolane Giraud, Dominique Pham, Nelly Wabete, Viviane Boulo SEEKING MICROBIAL BIOMARKERS TO MONITOR THE HEALTH OF PENAEIDAE LARVAE IN HATCHERIES: META-ANALYSES SURVEY OF REARING WITH CONTRASTED LARVAL SURVIVALS IN NEW-CALEDONIA
- **109:40** Teresa M. Agulles, Houguo Xu, Yuliang Wei, Huan Liu, Ruby Yu
 A NATURAL FEED ADDITIVE ENHANCES THE GROWTH AND HEALTH OF WHITE SHRIMP Penaeus vannamei
- 10:00 Tuan Vu Anh, Maria Garcia Suarez, Catherine Joyce Eusebio, Chris Mitchum D. Ganacial, Virna Fe Subere, Ferdinand M. Traifagar, Rowena E. Cadiz EFFECT OF SEAWEED EXTRACTS ON GENE EXPRESSION AND GROWTH PERFORMANCE OF WHITE LEG SHRIMP Penaeus vannamei AT THE COMMERCIAL PONDS
- 10:20 Parisa Norouzitallab, Kartik Baruah, Marta Arredondo, Beatriz Saldaña, Marisela Arturo-Schaan BUFFER-PROTECTED SODIUM BUTYRATE PROTECTS BRINE SHRIMP Artemia AGAINST Vibrio campbellii
- 10:40 BRFAK
- 11:00 Saravanan Subramanian, Sathish Kumar Thangaraj, Naveen Rajeshwar, Sivaramakrishnan Thiruganamurthy, Sujeet Kumar, Shiva Kumar, Lane Pineda, Morvarid Rezvani CAN ORGANIC ACIDS BE AN EFFECTIVE DIETARY INTERVENTION TO COMBAT VIBRIOSIS INFECTION IN SHRIMP?

11:20 Jimmy C.M. Wang

THREE TRIAL METHODS TO TEST PROBIOTIC PRODUCTS' INHIBITION AGAINST Vibrio parahaemolyticus IN SHRIMP FARMING

11:40 C R Subhashini

BACTERIOPHAGES – A NATURAL ALTERNATIVE TO ANTIBIOTICS FOR THE CONTROL OF BACTERIAL INFECTIONS IN AQUACULTURE

12:00 Sri Murti Astuti, Ita Rizkianti

IN VITRO AND IN VIVO TESTING SIMPLICIA OF PURPLE STEPANOT LEAVES Pseudocalymma alliaceum AGAINST THE BACTERIA Vibrio parahaemolyticus WHICH IS SUSPECTED TO CAUSE ACUTE HEPATOPANCREATIC NECROSIS DISEASE (AHPND) IN VANNAME SHRIMP

AQUACULTURE ENGINEERING, WASTE RECYCLING AND TREATMENTS - CONTINUED

Thursday, July 4 09:00 - 12:20 Diamond 3 Chairs: Norulhuda M. Ramli, Bambang Gunadi

09:00 Edwin P.Y. Chow

IMPROVING SURVIVAL AND PERFORMANCE – FUNCTIONAL LIPIDS AS ANTIBACTERIAL AND ANTIVIRAL TREATMENT IN AQUACULTURE

09:20 Glendon Teo, Yujie Ong, Daiwen Yang

NOVEL WATER TREATMENT FOR PATHOGENS USING COTTON COATED ANTIMICROBIAL PEPTIDE

09:40 Guno Gumelar, Nur Muflich Juniyanto

NITROGEN REMOVAL PERFORMANCE IN BIOREACTOR FILTERS USING INTENSIVE SHRIMP POND WASTE AS ANAMMOX BACTERIAL INOCULUM

10:00 Ganesh Babu Thambidurai

REVOLUTIONARY AQUACULTURE PATHOGEN DETECTION, DIET OPTIMIZATION, SELECTIVE BREEDING, IN AQUACULTURE USING BIOMARK™ X9 SYSTEM AND IFC TECHNOLOGY

10:40 BREAK

11:00 Shubham Soni, Arpita Sharma, Martin Xavier

APPROACHING CIRCULAR ECONOMY: UTILIZING FISH SKIN WASTE FOR NOVEL LEATHER PRODUCTION

11:20 Yih Nin Lee, Ravi Fotedar

A REVIEW IN NANOPARTICLES IN SUSTAINABLE AQUACULTURE
MANAGEMENT: PHYSIOLOGICAL CHANGES IN FISH AND DISEASE CONTROL

BROODSTOCKS, BREEDING, GENETICS AND DOMESTICATION

Thursday, July 4 09:00 - 17:20 Crystal 1 Chairs: Jose Domingos, Wendi Triprabowo, Loc Tran

- 09:00 Daniel Fegan, Chotitat Luengchaichawange
 BEYOND THE BASICS BUILDING THE NEW GENETICS.
- **Value Value Va**
- 10:20 BREAK
- **09:40** Parisa Norouzitallab, Farid Ghazian, Michelle Warren, Kartik Baruah FROM EPIGENOME TO PHENOTYPES: EPIGENETICS IN FISH AND SHELLFISH BROODSTOCK MANAGEMENT
- 10:00 Bing Liang, Dean R. Jerry, Xueyan Shen, Celestine Terrence, Maura Carrai, Vu Nguyen, Maria G. Nayfa, Kathiresan Purushothaman, Grace Loo, Shubha Vij, Jose A. Domingos
 GENETIC PARAMETERS AND GENOTYPE BY ENVIRONMENT INTERACTION

GENETIC PARAMETERS AND GENOTYPE BY ENVIRONEMTN INTERACTION OF HARVEST TRAITS FOR MALABAR RED SNAPPER *Lutjanus malabaricus* USING A 70K RED SNAPPER SNP ARRAY

- 10:20 Fauzan, Ipong Adiguna
 GROWTH OF HYBRID BROODSTOCK CANDIDATE OF AUSTRALIAN STRAIN
 GENERATION 1 (F1) SEABASS IN THE CULTURE CAGE
- 10:40 BREAK
- 11:00 Adriana Artiles, John Buchanan, Marcos de Donato, Carlos Pulgarin, Peter Kube, Jeff Prochaska, Panagiotis Kokkinias, Alejandro Gutierrez, Klara Verbyla, Simon Hill HARNESSING EFFICIENT GENETIC IMPROVEMENT TO MAXIMIZE ECONOMIC RETURN

11:20 Jose A. Domingos, Celestine Terence, Zhi Weng Josiah Poon, Saengchan Senapin, Ha Thanh Dong, Shannon Clarke, Rudiger Brauning, Ken Dodds, Xueyan Shen, Susan Kueh, Dean R. Jerry GENOTYPE-BY-SEQUENCING (GBS) – AN UNINTENDED TOOL TO BETTER UNDERSTAND PATHOGEN PREVALENCE AND LOAD IN AQUACULTURE BREEDING PROGRAMMES

- 11:40 Hamsah Amiruddin, Rochman Subiyanto, Hariyano
 MASS PRODUCTION OF GIANT TREVALLYFISH SEEDS Caranx ignobilis AT
 AMBON MARICULTURE DEVELOPMENT CENTER
- 12:00 Zainuddin, Arif Supriyanto, Muchamad Amiri, Bayu Priyambodo
 PROGRESS TOWARD DEVELOPMENT OF MARINE ORNAMENTAL FISH
 Premnas biaculeatus AQUACULTURE IN THE LOMBOK MARINE AQUACULTURE
 DEVELOPMENT CENTER. WEST NUSA TENGGARA. INDONESIA
- 12:40 LUNCH
- 13:40 Fui Fui Ching, Shigeharu Senoo BROODSTOCK MANAGEMENT AND POTENTIAL OF SEED PRODUCTION OF NAPOLEON WRASSE Cheilinus undulatus
- 14:00 Uray Hendri Istrada, Dikrurahman, Agung Darmono, Suyatno Suyatno, Ikhsan Kamil, Faisal Andre Siregar IMPROVING THE QUALITY AND QUANTITY IN SPAWNING AND EGG PRODUCTION OF SILVER POMPANO Trachinotus blochii BROODSTOCK THROUGH FEED MANAGEMENT
- 14:20 Rochman Subiyanto, Hamsah Amiruddin, Sunarto
 DOMESTICATION OF AMBERJACK FISH Seriolla dumerili AS AN EFFORT FOR
 SUSTAINABLE SEED PRODUCTION
- 14:40 Bunasir, Rohana Hidayati, Agung Hardika Tahalea, Sarmani
 PERFORMANCE PARENT OF SNAKEHEAD Channa striata MAINTAINED IN
 CONTROLLED BATS IN THE AQUACULTURE DEVELOPMENT PRACTICES IN
 THE COMMUNITY IN MANDIANGIN
- 15:00 Iffat Jahan, Makamguang Kamei
 INFLUENCE OF DIFFERENT GROUNDWATER SALINITIES ON GROWTH, SERUM
 STEROID LEVELS AND GONAD DEVELOPMENT IN COMMON CARP Cyprinus
 carpio (LINNAEUS, 1758)

Monal Lal, Deo Macahig, Marie Juinio-Meñez, Jon Altamirano, Roselyn Noran-Baylon, Margarita de la Torre-de la Cruz, Janine Villamor, Racelle Rescordado, Wilfredo Uy, Hanzel Mira-Honghong, Paul Southgate, Rachel Ravago-Gotanco COMPLEX POPULATION GENETIC STRUCTURE IN THE SEA CUCUMBER Holothuria scabra IN THE PHILIPPINES: IMPLICATIONS FOR AQUACULTURE AND

15:40 BREAK

FISHERY MANAGEMENT

16:00 Kelly T. Brown, Paul C. Southgate, Epeli M. Loganimoce, Teari Kaure, Brian Stockwell, Monal M. Lal LOSS OF GENETIC DIVERSITY DUE TO HATCHERY PRACTICES IN THE HIGH-VALUE SEA CUCUMBER Holothuria scabra

16:20 Hongyu Ma

PROGRESS ON SEX DETERMINATION AND DIFFERENTIATION OF THE MUD CRAB Scylla paramamosain

- Vaihiti Teaniniuraitemoana, Laura Benestan, Julie Fievet, Oriane Chevalier, Cédrik Lo, Mereani Bellais, Seiji Nakasaï, Dominique Devaux, Pierre Boudry, Romain Morvezen, Guillaume Mitta, Jérémy Le Luyer, Pierrick Haffray PARENTAGE ASSIGNMENT USING SNP MAKERS EFFICIENTLY IMPROVES THE MANAGEMENT OF GENETIC DIVERSITY IN MASS SPAWNED HATCHERY SPAT OF THE BLACK LIPPED PEARL OYSTER Pinctada margaritifera IN FRENCH POLYNESIA
- 17:00 Hendro Wahyudi, Cut Ruhul Muthmainnah, Bakhtiar Sah Putra BRIDGING FISH FARMERS FOR SUSTAINABLE FISHERIES IN ACEH

BLUE ECONOMY

Thursday, July 4 09:00 - 17:20 Diamond 4 Chairs: Chris Carter, Esti Handayani, Jon Altamirano

09:00 Chris G. Carter, Irene Penesis, Sarah Ugalde, Lindsey White, Angela Williamson, John Whittington

THE BLUE ECONOMY COOPERATIVE RESEARCH CENTRE PATH TO SUSTAINABLE INTEGRATED SYSTEMS FOR OFFSHORE AQUACULTURE: PROGRESS IN 2024

09:20 Esti Handayani Hardi

SMART SILVOFISHERY FOR FOOD SAFETY AND SUSTAINABLE AQUACULTURE

09:40	Hariyano,	La	Ramlan
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PRODUCTION OF TREVALLYFISH *Caranx* sp. ENLARGEMENT SCALE IN FLOATING NET CAGES AS A LOCAL COMMODITY DEVELOPMENT BUSINESS MODEL BASED ON SIMPLE TECHNOLOGY

10:20 Helena Vieira, Mariana Almeida, Noman Shafique, Miguel Leal, Ricardo Calado, Ana Lillebo

SCIENTIFIC AND MARKET TRENDS FOR MARINE CHITIN/CHITOSAN AND COLLAGEN VALUE CHAINS - IMPLICATIONS FOR AQUACULTURE CO-PRODUCTS VALORISATION

10:20 Mohammad Al-Zibdah

LAND BASED AQUACULTURE; A PROMISING PRACTICE IN JORDAN'S AQABA/RED SEA

10:40 BREAK

11:00 Muta H. Zakaria, Nurul N.F. Syed, Mohammad A. Che Alias, Nur Leena W.S. Wong, Japar S. Bujang ECOSYSTEM SERVICES OF SEAGRASS HABITATS IN PENINSULAR MALAYSIA

Juliansyah, Tulus, Ishak Usman, Rahmad Hidayat DEVELOPMENT OF FISHERY CULTIVATION ON PEAT LANDS TO SUPPORT THE MINISTRY OF MARINE AFFAIRS AND FISHERIES PRIORITY PROGRAM FOR POVERTY ALLEVIATION AND GERMPLASM PRESERVATION

11:40 Ari Prakoso, Heru Nugroho, Syofan
THE SOCIAL IMPACT OF DEVELOPING SALINE TILAPIA AQUACULTURE
MODELLING AT BLUPPB KARAWANG TO SURROUNDING COMMUNITIES

12:00 Emy Rusyani, Supriya
STUDY OF THE DECLINE OF GROUPER CULTIVATION IN FLOATING NET
CAGES PESAWARAN REGENCY, LAMPUNG PROVINCE

12:40 LUNCH

- 13:40 Marie Antonette Meñez, Tirso Catbagan, Olivier Josh Caasi
 LEVERAGING PUBLIC INVESTMENT IN THE OCEAN GROW-OUT AND CULTURE
 OF SANDFISH Holothuria scabra IN NORTHWESTERN LUZON PHILIPPINES
- **14:00 Emmylou Emperador**, Anabelle Dece Espadero, Hanzel Honghong, Wilfredo Uy FAMILY-BASED SANDFISH FARMING: THE CASE INNORTHERN MINDANAO, PHILIPPINES

- 14:20 Marie Antonette Menez, Rona Soy, Olivier Josh Caasi, Jeraldine Bigcas ESTABLISHMENT AND MANAGEMENT OF COMMUNITY-BASED SEA CUCUMBER CULTURE PRODUCTION CLUSTERS IN BOLINAO, PANGASINAN
- 14:40 Janine L. Villamor, Joyce Laurente, Margarita de la Torre- de la Cruz SANDFISH SEA RANCHING: CATALYST FOR THE RECOVERY OF SEA CUCUMBER DIVERSITY
- **15:00** Quenie S. Montinola, Jon P. Altamirano, Jesus C. Rodriguez Jr. CAN A SMALL-SCALE TROPICAL SEA CUCUMBER HATCHERY BE PROFITABLE?
- **15:20 Jon Altamirano**, Raisa Joy Castel, Quenie Montinola, Roselyn Noran-Baylon SEA CUCUMBER RANCHING BY THE COMMUNITIES: HOW TO MAKE IT WORK?
- 15:40 BREAK
- 16:00 Chris G. Carter, Sarah Ugalde, Stewart Frusher, Flavio Ribeiro, Maren Wellenreuther, Lindsey White, Angela Williamson SUSTAINABILITY FROM THE SEA: HOW TO SELECT SPECIES FOR INTEGRATED OFFSHORE AQUACULTURE SYSTEMS IN AUSTRALIA AND NEW ZEALAND
- 16:20 Bayu Priyambodo, Baiq Shafiah, M Nurul Huda, Clive Jones
 THE CURRENT STATUS, CONSTRAINTS, AND OPPORTUNITIES OF
 ESTABLISHING SPINY LOBSTER AQUACULTURE INDUSTRY IN INDONESIA
- 16:40 Hazrat Ali, Ben Belton, Mohammad Mahfujul Haque, Khondker Murshed-e-Jahan TRANSFORMATION OF THE FARMING SEGMENT OF THE AQUACULTURE VALUE CHAIN IN BANGLADESH
- 17:00 Henry Cuong Tran, Julius Benaqua, Marc Campet, Anh Pham, Thao Truong BE A SUCCESSEUL AQUA FARMER THROUGH CARRYING CAPACITY

SHRIMP FARMERS' DAY

Thursday, July 4 09:00 - 17:20 Ballroom Chair: Iwan Sutanto

An all-day program designed to present to Shrimp Farmers, the latest in practical information to enhance their operation, increase productivity and profit and deal with current problems facing farmers.

NUTRITION, FEED INGREDIENTS, FEED ADDITIVES AND FEED TECHNOLOGY - CONTINUED

Thursday, July 4 09:00 - 17:20 Diamond 1
Chairs: Ronnie Tan Kean Hui, Dedi Jusadi, Kartik Baruah, Desy Putri Handayani,
Le Boucher Richard

- **09:00** Hazrat Ali, Ben Belton, Mohammad Mahfujul Haque, Khondker Murshed-e-Jahan TRANSFORMATION OF THE FEED SUPPLY SEGMENT OF THE AQUACULTURE VALUE CHAIN IN BANGLADESH
- 09:20 Peace Onas Somdare, Khalidah Abdul Hamid ASSESSING THE IMPACT OF PAPAYA LEAF EXTRACT SUPPLEMENTATION IN DIET FOR RED HYBRID TILAPIA Oreochromis niloticus x Oreochromis mossambicus
- 09:40 Glaiza Ibañez, Rona Soy, Marie Antonette Juinio-Meñez UTILIZATION OF MACROALGAL JUICE AS AN ALTERNATIVE SETTLEMENT CUE AND POST-SETTLED JUVENILE FEED FOR Stichopus cf. horrens
- 10:00 Yanjiao Zhang, Jinzhu Yang, Zhonghao Zhang, Gang Lin, Mingzhu Li, Kangsen Mai INTESTINAL MICROBIOTA DIFFERENCES ASSOCIATED WITH PHYSIOLOGICAL HEALTH, MEAT QUALITY, AND REGULATING MINERAL INTERACTIONS OF Penaeus vannamei FED ORGANIC MANGANESE
- 10:20 Emelyn Joy Mameloco, Maila Pan, Rex Ferdinand Traifalgar
 MULTIPLE BENEFITS IN ONE SUPPLEMENT: PEPTIDOGLYCAN
 SUPPLEMENTATION PROMOTES GROWTH, CELLULAR ENERGY ALLOCATION,
 IMPROVES DIGESTION, AND ENHANCES WHITE SPOT SYNDROME VIRUS
 RESISTANCE OF JUVENILE Penaeus monodon
- 10:40 BREAK
- 11:00 Yanjiao Zhang, Jinzhu Yang, Zhonghao Zhang, Mingzhu Li, Gang Lin, Kangsen Mai ORGANIC COPPER PROMOTED COPPER ACCUMULATION AND TRANSPORT, ENHANCED LOW TEMPERATURE TOLERANCE AND TOLERANCE AND PHYSIOLOGICAL HEALTH OF WHITE SHRIMP *Litopenaeus vannamei* (BOONE, 1931)
- 11:20 Rex Ferdinand Traifalgar, Modesto Melden Intoy
 SOYBEAN LECITHIN SUPPLEMENTATION INCREASES THE REPLACEMENT
 OF SOYBEAN MEAL WITH FERMENTED COPRA MEAL IN THE DIET OF NILE
 TILAPIA Oreochromis niloticus (LINNAEUS, 1758) REARED IN SEAWATER

- 11:40 Silvia Martínez-Llorens, Ruben Olivares-Perona, Jessica Brol, Ignacio Jauralde, Miguel Jover, Ana Tomás-Vidal, David S. Peñaranda, Silvia Martínez-Llorens EFFECT OF FISHMEAL SUBSTITUTION ON INTESTINAL TRANSCRIPTOME OF Liza aurata REARED IN RECIRCULATION AQUACULTURE SYSTEM (RAS)
- 12:00 Charles Saliba, Michael Saliba, Kartik Baruah
 THE BENEFICIAL ROLE OF CACTUS ON THE CULTURE OF SHRIMP AND FISH:
 A SUMMARY OF INDUSTRIAL APPLICATIONS IN VARIOUS SPECIES
- 12:40 LUNCH
- 13:40 Noor Khan, Sheeza Bano
 ENHANCING FARMED STRIPED CATFISH Pangasianodon hypophthalmus
 ROBUSTNESS USING DIETARY ß-GLUCAN
- 14:00 Kasun Tharaka, Kyeong-Jun Lee, Hyunwoon Lim, Suhyeok Kim, Yeonji Lee, Youngmi Lee, Kookjin Cho EVALUATION OF Schizochytrium sp. AS A NUTRITIONAL ENRICHMENT SOURCE FOR ROTIFER AND ARTEMIA ON THE GROWTH AND IMMUNITY OF PACIFIC WHITE SHRIMP Penaeus vannamei
- 14:20 Govindharaj Sathishkumar, Nathan Felix, Amit Ranjan, Arumugam Uma, Elangovan Prabu, Kalaivanan Rajalakshmi ASSESSING THE IMPACT OF ALGAE MEAL Arthrospira platensis AND FISH PROTEIN HYDROLYSATE AS AN ALTERNATIVE TO FISH MEAL IN PRACTICAL DIETS OF STRIPED MURREL Channa striata: GROWTH PERFORMANCE, NUTRIENT UTILIZATION, AND INNATE IMMUNE RESPONSES
- 14:40 Mark Henry F. De Leon, Rex Ferdinand M. Traifalgar
 DIETARY RICE MOTH MEAL AS FISH MEAL REPLACEMENT PROMOTES
 GROWTH AND NUTRIENT RETENTION IN JUVENILE TILAPIA Oreochromis
 niloticus
- 15:00 Vyenge Erre D. Gayosa, Rex Ferdinand M. Traifalgar,
 Lovelyn Marie Nievales-Naluaran, Mark Henry F. De Leon
 DIETARY ULVAN SUPPLEMENTATION TO EARLY JUVENILE MILKFISH Chanos
 chanos IMPROVED GROWTH PERFORMANCE, IMMUNE GENE EXPRESSION,
 AND SURVIVAL AGAINST Vibrio harveyi
- 15:20 Noah Esmaeili, Ebrahim Sotoudeh, Rahmat Hosseinpour Aghaei, Mehrzad Asadi, Mohammad Ali Yazdani, Fatemeh Jahangiri, Mohammad Khoshraftar, Parvaneh Heidari, Roghayeh Dehghani, Abdolmohammad Abedian Kenari PROTEIN RESTRICTION CAN REDUCE FEED COST IN AQUACULTURE: EVIDENCE FROM ANCIENT, TELEOST AND CRUSTACEAN SPECIES

15:40

BRFAK

46.00	Tiere Ferelevrieve	Canny Halmisti	Tony Dudi Catriva	

16:00 Tiara Faralovrisya, Senny Helmiati, Tony Budi Satriyo
THE EFFECT OF GIVING PROBIOTICS TO BLACK SOLDIER FLY LARVAE ON
THEIR GUT MICROBIOME COMMUNITY

16:20 Amal Biswas, Shota Shirakawa, Daisuke Nakayama, Satoshi Okimura, Tomoki Honryo, Hideki Tanaka TUNA BY-PRODUCT MEAL ON GROWTH, WHOLE-BODY MERCURY, PHOSPHORUS LOAD AND PLASMA CHEMISTRY IN JUVENILE GREATER AMBERJACK Seriola dumerili

16:40 Akhmad Riva'i, Samsul Bahrawi, Sunyoto
ARTIFICIAL FEED ENRICHMENT WITH BIOACTIVATORS FOR BUSINESS SCALE
EFFICIENCY AND EFFECTIVENESS

17:00 Desy Putri Handayani, Alim Isnansetyo, Senny Helmiati
THE NUTRITIONAL VALUE AND EFFECT OF BROMELAIN HYDROLYSED
CHICKEN FEATHER MEAL ON *Claras* sp. GROWTH

FOOD SAFETY, INSPECTIONS, AUDITS, AND SECURITY

Thursday, July 4 11:00 - 12:20 Crystal 5 Chairs: Belinda Yaxlay, Ekowati Chasanah

- 11:00 Sofian Ansori, Niezha Eka Putri, Tiara Aprina
 OVERVIEW OF DANGEROUS CONTAMINATION FROM HEAVY METALS AND
 BIOTOXINS IN SHELLFISH AND WATERS ON THE NORTH COAST OF JAVA
- 11:20 Azwardi, Paiman Eko Prasetyo, Alghifari Mahdi Igamo, Wahyu Aji Wijaya INCREASING FOOD SECURITY THROUGH THE CONTRIBUTION OF FISHERIES IN THE DEVELOPMENT OF THE AQUACULTURE SECTOR
- 11:40 Syamsul Arifin
 ENSURING SEAFOOD SAFETY AND PREVENTING FRAUD: THE ROLE OF BAP
 AND BSP CERTIFICATION
- 12:00 Alistair E. Douglas
 INCENTIVISING BLOCKCHAIN TRACEABILITY ADOPTION TO ASSESS AND
 REDUCE FOOD SAFETY RISKS IN SEAFOOD SUPPLY CHAINS

IMMUNOLOGY, VACCINES, PROBIOTICS, PREBIOTICS AND SYNBIOTICS

Thursday, July 4 11:00 - 15:40 Diamond 5 Chairs: Murni Marlina Abdul Karim, Ching Fui Fui

- 11:00 Wonhoon Kim, Jongho Lim, Choong Hwan Noh, Kyeong-jun Lee
 EFFECTS OF DIETARY PREBIOTIC, PROBIOTICS AND SYNBIOTIC
 SUPPLEMENTATION ON INNATE IMMUNITY AND DISEASE RESISTANT OF
 OLIVE FLOUNDER Paralichthys olivaceus
- 11:20 Srinivas Rayaprolu

EFFECT OF PROBIOTICS ON PATHOGENIC Vibrio BACTERIAL POPULATIONS IN CULTURE PONDS OF Litopenaeus vannamei AT MOPHUS BANDER, SRIKAKULAM DISTRICT, ANDHRA PRADESH, INDIA

- 11:40 Mark Rowel Napulan, Craig Browdy, Rex Ferdinand Traifalgar, Carmelo Del Castillo, Ramir Lee, Emelyn Joy Mameloco, Rowena Cadiz DIETARY SUPPLEMENTATION OF MIXED BACILLUS SPECIES PROBIOTICS IMPROVED SURVIVAL OF WHITE SHRIMP Penaeus vannamei EXPOSED TO PATHOGENIC Vibrio harveyi AND Vibrio parahaemolyticus
- 12:00 Murni Karim, Puvaneswari Puvanasundram, Chou Min Chong, Suriana Sabri, Md Sabri Mohd Yusoff, Nurhamiza Izwani Baharim PROPERTIES OF MULTI-STRAIN PROBIOTICS FROM MARINE ORGANISMS AS BIOCONTROL OF Vibrio harveyi
- 12:40 LUNCH
- 13:40 Christian Maikel Eman, Ni Putu Dian Kusuma, Debby Dyanessa Saragih
 THE EFFECT OF EM4 PROBIOTICS ON WATER QUALITY, GROWTH
 PERFORMANCE AND FEED UTILIZATION OF COMMON CARP Cyprinus carpio
- 14:00 Ahmad Daud Om, Ain Nur Izzah Zulkarnain, Noordiyana Mat Noordin, Shumpei lehata FORMULATION OF PROBIOTIC-DEVELOPMENT OF ENRICHED FEED FOR RAS NURSED HYBRID GROUPER
- 14:20 Sherilyn T. Abarra, Mark Rawling, Daniel L. Merrifield
 EFFECTS OF LIVE AND INACTIVATED BACTERIAL FEED ADDITIVES ON THE
 GROWTH PERFORMANCE AND MUCOSAL HEALTH OF MIRROR CARP Cyprinus
 carpio UNDER A LOW FEEDING REGIME
- 14:40 Regis Vialle, Sarah Kharief, Juliette Ben Arous, Nicolas Versillé, Eakapol Wangkahart ORAL DELIVERY OF A VACCINE AGAINST STREPTOCOCCISIS IN NILE TILAPIA

- 15:00 Alim Isnansetyo, Toni Kuswoyo, Murwantoko, Amir Husni, Indah Istiqomah NON-SPECIFIC IMMUNITY, GENE EXPRESSION, AND Streptococcus agalactiae RESISTANCE IN RED TILAPIA Oreochromis sp. WITH DIFFERENT FEEDING INTERVALS OF SUPPLEMENTAL SODIUM ALGINATE
- 15:20 Stefani Stefani, Alex Makol, Orapint Jintasataporn
 GROWTH PERFORMANCE AND LIVABILITY OF WHITE LEG SHRIMP Litopenaeus
 vannamei FED POSTBIOTIC AND CHALLENGED WITH Vibrio parahaemolyticus

GENERAL AQUACULTURE

Thursday, July 4 13:40 - 17:20 Diamond 3 Chairs: S.M. Nurul Amin, Slamet Soebjakto

- 13:40 Abdulsalam Sani Nababa, Armayau Hamisu Bichi, Gambo Aliyu Umar STUDIES ON SOME BIOLOGICAL ASPECTS AND PREVALENCE OF GASTROINTESTINAL PARASITES OF *Schilbe mystus* FROM ZOBE RESERVOIR KATSINA STATE. NIGERIA
- 14:00 Baba Usman Ibrahim, Balogu Dennis Odionyenfe, Yunusa Abdu FOOD AND FEEDING HABITS OF THE CICHLIDAE IN TAGWAI RESERVOIR, NIGER STATE. NIGERIA
- 14:20 Zarirah Mohamed Zulperi, Amirah Syafiqah Zamri, Fatin Nabilah Sahadan, Yuzine Esa, Annie Christianus, Fadhil-Syukri Ismail, Ina-Salwany Md Yasin DEVELOPMENT OF GONADOTROPIN-RELEASING HORMONE AGONIST (GNRHA) IMPLANT TO REGULATE HYPOTHALAMUS-PITUITARY-GONADAL (HPG) AXIS OF PATIN BUAH *Pangasius nasutus* (BLEEKER, 1863)
- 14:40 Harry Wuwungan, Deni Sugianto, Syofan
 CHARACTERISTICS OF TILAPIA FISH ON THE NORTH COAST OF JAVA
- 15:00 Catur Setiowibowo, Mubinun, Salali
 RELEASE WILD HOVEN'S CARP Leptobarbus hoevenii (IKAN JELAWAT) IN
 THE PUBLIC WATERS OF THE ISLAND OF SUMATRA AS AN ADDITION TO
 THE STOCK OF CAUGHT FISH AND PRESERVING THE DIVERSITY OF FISH
 RESOURCES
- 15:20 Ravi Fotedar
 AQUACULTURE: UNTAPPED POTENTIAL
- 15:40 BREAK
- 16:00 Ahmed Mustafa
 AQUACULTURE: QUANTITY OR QUALITY

- 16:20 Matangi Moeroa, Georges Remoissenet, Moana Maamaatuaiahutapu, Marc-André Lafille, Thierry Tamata, Tuani Toussaint, Stanley Flohr, Mike Teissier STATUS OF AQUACULTURE IN FRENCH POLYNESIA
- 16:40 Simon Leunig, Han Kiat Chin, Yih Nin Lee, Ravi Fotedar
 MAKE TOMORROW BETTER; CURTIN UNIVERSITY MALAYSIA HAS VENTURES
 INTO AQUACULTURE RESEARCH, COLLABORATION, AND EDUCATION TO
 RAISE AWARENESS, SUPPORT, AND DEVELOP THE CURRENT STATUS AND
 DEVELOPMENT OF AQUACULTURE IN SARAWAK

DISEASE DIAGNOSIS, DRUGS, CHEMOTHERAPEUTICS AND TREATMENT METHODS

Thursday, July 4 13:40 - 17:20 Crystal 3 Chairs: Ruth Garcia Gomez, Maftuch, Ina Salwany M Yasin

- 13:40 Endang Wijayanti, Uray Hendri Istrada, Sri Agustatik, Ikhsan Kamil, Ade Harwono INFECTION OF Cryptocarion irritans PARASITE ON SEABASS Lates calcarifer BROODSTOCKS IN MARICULTURE CENTRE BATAM: OUTBREAK AND CONTROLLING
- 14:00 Mustapha Amadu Sadauki, Akeem Babatunde Dauda, Muktar Badamasi PREVALENCE OF BLOOD PARASITES Trapanosoma spp. IN NILE TILAPIA Oreochromis niloticus (LINNAEUS, 1758) FROM ZOBE RESERVOIR, KATSINA STATE, NIGERIA
- 14:20 Eka Trisnawati, Padel Purnama
 CONTROL OF PARASITIC DISEASES IN JAYASAKTI COMMON CARP Cyprinus
 carpio NURSERIES IN A CONTROLLED CONTAINER
- **14:40 Joko Santosa**, Luluk Widiyanti
 TIME SERIES OF FISH AND SHRIMP DISEASES IN NTB PROVINCE 2019 2023
- 15:00 Heny Budi Utari, Radi, Agung Gunawan, Bambang Indiadie, Guruh Suryawan, Dean Akiyama SUCCESS ON PREVENTION, QUICK DETECTION, INTERVENTION AND CONTROLLING GUIDELINES OF Enterocytozoon hepatopenaei INFECTION POND
- **15:20** Ratna Amalia Kurniasih, Suherman, Ellis Mursitorini, Wiwin Wiyani, Joko Suwiryono PATHOLOGY OF CATFISH *Pangasius* sp. IN MORTALITY EVENT IN LEBAK REGENCY, BANTEN PROVINCE
- 15:40 BREAK

16:00	Indri Astuti, Yudho Adhitomo
	EFFECT OF LOCAL ISOLATE VACCINE Edwardsiella ictaluri FOR PREVENTION
	OF ESC (ENTERIC SEPTICEMIA OF CATFISH) DISEASE IN STRIPED CATFISH
	Pangasionodon hypophthalmus IN JAMBI

- **16:20 Ezra Yuni Tyastutiningsih**, Yasintya Inggariyanti, Siti Mutho Mimah PHARMACOKINETIC AND TISSUE DISTRIBUTION OF SINGLE ORAL DOSE ENROFLOXACIN IN NILE TILAPIA *Oreochromis niloticus*
- 16:40 Wan Muhammad Izzat Amir Wan Mustafa, Idris Shaharah, Mansor Nur Nazifah, Abdullah Azila THE ANTIBACTERIAL ACTIVITY OF GELENGGANG Cassia alata PLANT AGAINST FISH PATHOGENIC BACTERIA
- 17:00 Mohamad Faisal Fahmi Bin Jafrei, Shaharah Idris, Firdaus Nawi, Azila Abdullah FIELD EFFICACY OF GARLIC *Allium sativum* EXTRACT AGAINST BACTERIAL DISEASE (VIBRIOSIS)

AQUATIC ANIMAL WELFARE 2024

Thursday, July 4 13:40 - 17:20 Crystal 5 Chairs: Salin Krishna, Coco Cocarcin, Marius Nicolini

13:40 Maria Filipa Castanheira

MASTERING OPERATIONAL WELFARE INDICATORS WITHIN THE ASC CERTIFICATION

- **14:00** Marius Nicolini, Murilo Quintiliano, Pau Badia
 EMPOWERING AQUACULTURE: INNOVATIONS IN APPLIED ANIMAL WELFARE
 TECHNOLOGY AND EDUCATION
- 14:20 Sunil Kadri, Johannes Kvam
 WELFARE SCORING FOR WHOLE FISH POPULATIONS BASED ON BEHAVIOUR,
 PRODUCTION AND ENVIRONMENTAL VARIABLES USING ARTIFICIAL
 INTELLIGENCE
- 14:40 Kostas Vavitsas, Suruchi Sharma, Abhijith E K, Rishita Changede
 AQUAGUARD, A PLATFORM TECHNOLOGY FOR SUSTAINABLE DISEASE
 MANAGEMENT IN AQUACULTURE
- 15:00 Dominique Gautier, Shannon Roberts
 FARMED SHRIMP WELFARE MANAGEMENT FROM A SUPPLY CHAIN
 PERSPECTIVE

- **15:20** Lien-Huong Trinh, Krzysztof Wojtas, Andrés Guillermo Jiménez Zorrilla SUPPORTING THE SHRIMP INDUSTRY TO ADOPT HIGHER WELFARE PRACTICES
- 15:40 BREAK
- 16:00 Noah Esmaeili
 HOW IS BLOOD PERFORMANCE RELATED TO THE ANTIOXIDANT SYSTEM AND
 LIVER ENZYMES IN FISH?
- **16:20** Nand Kumar Lathker, Asif Shaik
 EXPLORING THE PREDATORY VERSATALITY OF *B. bacteriovorus* AND ITS
 POTENTIAL APPLICATIONS IN AQUACULTURE
- 16:40 PANEL DISCUSSION

BIVALVES, CRABS AND LOBSTERS - CONTINUED

Thursday, July 4 16:00 - 17:20 Diamond 5 Chairs: Leila Basti, Diana Chan

- 16:00 Taufan Haryono, Muhammad Hidayat, Muchamad Amiri, Ni Nyoman Tri Hanayanthi ABALONE *Haliotis squamata* MASS REARING USING HANGING COMPARTMENT METHOD IN MARINE AQUCULTURE DEVELOPMENT CENTRE LOMBOK, WEST NUSA TENGGARA PROVINCE. INDONESIA
- 16:20 Li-Lian Liu, Chih-Ching Lin, Chung-Wei Yang, Pi-Jen Liu
 SPATIAL AND TEMPORAL VARIATION IN INFESTATION OF PORTUGUESE
 OYSTERS BY MACROBORERS IN FARMING AREAS IN TAIWAN
- 16:40 Ulvanida Romaskila, Julinasari Dewi, Andrian Garbono, Rakhmat Hadi, Nana Lestari MICROPLASTIC CONTAMINATION IN GREEN MUSSELS CULTIVATED ON PASARAN ISLAND. LAMPUNG
- 17:00 Said Al Barwani, Sm Nurul Amin, Aziz Arshad, Anish Govender, Harib Al Habsi, Khamis Al-Riyami, Jasim Al Khayat AGE, GROWTH, POPULATION DYNAMICS AND STOCK STATUS OF Perna perna IN OMANI WATERS

FRIDAY, July 5

BROODSTOCKS, BREEDING, GENETICS AND DOMESTICATION - CONTINUED

Friday, July 5 09:00 - 10:20 Crystal 1 Chairs: Jose Domingos, Wendi Triprabowo, Loc Tran

- 09:00 Yudho Adhitomo, Indri Astuti, Maheno Sri Widodo THE EFFECT OF FERTILIZATION MEDIA PH ON Spermatozoa FERTILIZATION PROCESS AS THE RESULTS OF SEXING ON PANGASIUS Pangasionodon hypophthalmus
- 09:20 Bunasir, Syafrudin Syafrudin, Muhammad Tahir PROGENY TEST OF MALE RESULTING FROM SEX TRANSFER IN CLIMBING PERCH Anabas testudineus
- 09:40 Rohana Hidayati, Rustadi, Dini W.K. Sari, Bunasir, Supriani GENETIC MAPPING OF STRIPPED SNAKEHEAD Channa striata IN INDONESIA; A COMPREHENSIVE STUDY ON FARM AND WILD POPULATION FROM FIVE MAIN ISLANDS

BIVALVES, CRABS AND LOBSTERS

Friday, July 5 09:00 - 12:20 Diamond 5 Chairs: Leila Basti. Diana Chan

- 09:00 Aprisanto Dwi Laksana, Oki Setiawan, Januar Hakam, Muhammad Hidayat EXISTING CONDITIONS AND SCALE-UP FOR PEARL OYSTER Pinctada maxima PRODUCTION IN MARINE AQUACULTURE DEVELOPMENT CENTER (MADC) LOMBOK. INDONESIA
- 09:20 Bay Phung, Nam Pham Viet, Nga Ton Nu My EFFECTS OF MICROALGAE AND SALINITY ON GROWTH AND SURVIVAL OF PEARL OYSTER Pteria penguin (RODING, 1798) LARVAE
- 09:40 Leila Basti, Mouna Rifi, Fabio Crocetta
 TOWARD SUSTAINABLE BLUE FOODS: ECOSYSTEM-BASED ASSESSMENT OF
 BIVALVE STOCKS IN A HYPER ARID COASTAL WETLAND

10:00 Herno Minjoyo, Arief Rivaie, Suryadi Saputra, Yuwana Puja, Dwi Handoko Putro, Silfester Dhoe, Maya Meiyana, Suci Antoro BIOLOGICAL PERFORMANCE OF SAND SPINY LOBSTER Panulirus homarus GROWOUT WITH DIFFERENT STOCKING DENSITY AT 7 M DEPTH

10:20 BREAK

- 11:00 Marwan, Muh. Suaib, Nur Muflich Juniyanto
 LOBSTER CULTIVATION IN FLOATING NET CAGES (KJA) WITH LOW LIGHTNESS
 LEVELS
- 11:20 Faidar, Hamka, Syamsul Bahri, Nur Muflich Juniyanto
 SOLITER SI BLUE, A PRODUCTION MODEL SOLUTION FOR QUALITY CRAB
 Portunus pelagicus SEEDS TO SUPPORT INCREASED EXPORT-ORIENTED
 PRODUCTION OF LEADING COMMODITIES
- 11:40 Mohammad Amzad Hossain, Ventura Tomer, Emma Jackson, Julie Robins, Nicole Flint EFFECTS OF SALINITY AND TEMPERATURE ON THE REPRODUCTION AND MOULTING PHYSIOLOGY OF FEMALE GIANT MUD CRABS Scylla serrata
- 12:00 Diana Chan, Saravanan Padmanabhan, Yun-Tzu Huang, Germaine Lau, Md Arefin Rahman, Deborah Chua, Lee Chee Wee NON-FORMALIN BASED PROPHYLACTIC TREATMENT OF MUD CRABS
- 12:20 Yushinta Fujaya
 BLUE SWIMMING CRAB INDUSTRY AND CULTIVATION EFFORT FOR
 SUSTAINABILITY

SHRIMP FARM DESIGN AND MANAGEMENT

Friday, July 5 09:00 - 12:20 Crystal 5 Chairs: Farshad Shishehchian, Supito

- 09:00 Wilson Wasielesky, Luis Poersch, Dariano Krummenauer, Geraldo Fóes, Lucas Silveira, Silvia Martínez-Llorens, David Peñaranda CHANGING FROM CONVENTIONAL Penaeus vannamei SEMI-INTENSIVE CULTURE SYSTEM TO SUPERINTENSIVE BIOFLOC CULTURE SYSTEM: A REVIEW OF IMPORTANT POINTS
- **09:20 Wilson Wasielesky**, Maria de Fátima Gomes Silva, Hellyjunyor Brandão APPLICATION OF THE DENITRIFICATION PROCESS TO REMOVAL NITRATE DURING THE CULTURE OF *Penaeus vannamei* IN A BIOFLOC SYSTEM

- **09:40** Bayu Romadhona, Hendra Gunawan, Supito
 TECHNIQUES FOR IMPROVING POND PRODUCTIVITY THROUGH JUVENILE
 SHRIMP STOCKING
- 10:00 Atri Triana, Agus Dwiono, Ari Prakoso, Widya Puspitasari DEVELOPMENT OF SUPERINTENSIVE VANAME SHRIMP FARMING AT BALAI LAYANAN USAHA PRODUKSI PERIKANAN BUDIDAYA (BLUPPB) KARAWANG
- 10:20 BREAK
- 11:00 I Gde Budha Adyana Yasa, Herinto, Maskar Jayadi, Suzana M. Ratriningrum VANAME SHRIMP CULTURE MANAGEMENT IN KEBUMEN DISTRICT
- 11:20 Georges Remoissenet, Marc-André Lafille, Thierry Tamata, Stanley Flohr, Nick Atger, Matangi Moeroa, Rarahu David, René Bernardino, Gilles Le Moullac, Jean Goguenheim CAGE PRODUCTION OF BLUE SHRIMP Penaeus stylirostris IN OLIGOTROPHIC CORAL REEF LAGOONS OF FRENCH POLYNESIA: REMARKABLE AND PROMISING RESULTS FOR FAMILY-SCALE FARMS

11:40 Tommy Vu

THE IMPORTANCE OF THE DESIGN STEP IN SHRIMP FARM INVESTMENT AND OPERATION IN VIETNAM

MICROALGAE-BACTERIA VALORIZATION: PRODUCTION TO APPLICATION

Friday, July 5 09:00 - 12:20 Diamond 4 Chairs: Natrah Fatin M. Ikhsan, Sidrotul Naim, Fatimah Md Yusoff

- 09:00 Ina Salwany Md Yasin, Haifa-Haryani Wan Omar, Zamri-Saad Mohd, Mohammad Noor Amal Azmai, Natrah Ikhsan ASSESSMENT OF VIRULENCE FACTORS AND ANTIMICROBIAL RESISTANCE OF Vibrio SPECIES ISOLATED FROM CULTURED SHRIMP IN MALAYSIA
- 09:20 Natrah Ikhsan, Ina Salwany Md Yasin, Siti Zulaikha, Faridah Abas, Mohd Ihsanuddin ROLE OF MICROALGAE WITH QUORUM SENSING INHIBITION PROPERTIES TO REDUCE ANTIMICROBIAL RESISTANCE AND CONTROL DISEASE IN AQUACULTURE
- 09:40 Yam Sim Khaw, Ikhsan Natrah, Fatimah Md. Yusoff, Hui Teng Tan BIOPROPESCTING OF MALAYSIAN INDIGENOUS FRESHWATER AND MARINE MICROALGAE FOR HIGH FUCOXANTHIN AND LIPID CONTENT: POTENTIAL FOR AQUACULTURE APPLICATIONS

- 10:00 Hui Teng Tan, Natrah Ikhsan, Fatimah Md. Yusoff, Yam Sim Khaw ENHANCEMENT OF GROWTH AND ASSOCIATED COMPOUND OF Spirulina sp. FOR AQUACULTURE PURPOSE THROUGH SYMBIOTIC BACTERIA-MICROALGAE INTERACTION
- 10:20 BREAK

SYSTEM

11:20

- 11:00 Umi Wahidah Ahmad Dini, Fatimah Md Yusoff, Zetty Norhana Balia Yusof, Norulhuda Mohamed Ramli, Natrah Ikhsan REPRODUCTIVE CAPACITY AND NUTRITIONAL COMPOSITION OF A CLADOCERAN Moina micrura FED WITH MICROALGAE-BACTERIA DIETS
- Clement Roy De Cruz, Muhammad Farhan Nazaruddin, Hazwani Hanim Hasnan, Ninie Diana Baharuddin EVALUATION ON THE EFFECTS OF Halamphora sp. ADDITION ON BLACK TIGER SHRIMP Penaeus monodon POST LARVAE CULTURED IN INDOOR BIOFLOC

Mohd Ihsanuddin bin Ahmad Abdullah, Natrah Ikhsan, Murni Karim.

DISEASE DIAGNOSIS, DRUGS, CHEMOTHERAPEUTICS AND TREATMENT METHODS - CONTINUED

Friday, July 5 09:00 - 12:20 Crystal 3 Chairs: Ruth Garcia Gomez, Maftuch, Ina Salwany M Yasin

- 09:00 Yufan Zhang, Senyue Liu, Gang Lin, Xiaoli Huang CMOS ENHANCED THE MUCOSAL IMMUNE FUNCTION OF SKIN AND GILL OF GOLDFISH Carassius auratus linnaeus TO IMPROVE THE RESISTANCE TO Ichthyophthirius multifiliis INFECTION
- **Vufan Zhang**, senyue liu, Gang Lin, Xiaoli Huang THE POTENTIAL MECHANISM OF CONCENTRATED MANNAN OLIGOSACCHARIDE PROMOTING GOLDFISH'S Carassius auratus linnaeus RESISTANCE TO Ichthyophthirius multifiliis INVASION
- **09:40** Syafiq-Syauqi S., Nur-Nazifah M., Shaharah M.I., Firdaus Nawi M. PROPHYLACTIC EFFECT OF GARLIC JUICE EXTRACT AGAINST Edwardsiella ictaluri INFECTION IN Pangasianodon hypophthalmus
- 10:00 Nurbariah, Sukenda, Sri Nuryati, Dinamella Wahjuningrum, Widanarni SERAPOH LEAVES Chromolaena odorata AFFECTS THE IMMUNE RESPONSE, RESISTANCE AND HISTOPATHOLOGY OF ASIAN SEABASS Lates calcarifer AGAINTS Vibrio alginolyticus INFECTION

10:20	BREAK

- 11:00 Kartik Baruah, Sineka Pathiranage, Rifat N Shanta, Mieke Eggermont, Parisa Norouzitallab HEALTHY STARTS: INTEGRATING STRESSCEUTICALS IN FISH AND SHRIMP LARVAL MANAGEMENT
- **Swastika Dita Soraya**, Sofian Ansori, Rismelsy EFFICACY TESTING OF ENROFLOXACIN AGAINST *Aeromonas hydrophila* IN CATFISH *Clarias* sp.
- 11:40 Ezra Yuni Tyastutiningsih, Yasintya Inggariyanti, Siti Mutho Mimah PHARMACOKINETIC AND TISSUE DISTRIBUTION OF SINGLE ORAL DOSE ENROFLOXACIN IN NILE TILAPIA Oreochromis niloticus
- 12:00 Nguyen Minh Duy, Chewen Wei, Hai Hau Liou, Yu Xuan Wang EFFECTIVE METHODS TO CONTROL VIBRIO IN SHRIMP CULTURE

MACROPHYTES AND ALGAE

Friday, July 5 09:00 - 15:40 Diamond 5 Chairs: Muta Harah Zakaria, Nono Hartanto, M. Razif Harun

- 13:40 Joel Wynhorst, Ashiwin Vadiveloo, Navid Moheimani, Ravi Fotedar
 THE GROWTH OF GREEN SEAWEED Chaetomorpha linum (O.F. Müller) Kützing
 CULTURED IN A RANGE OF IONIC PROFILES USING INLAND SALINE WATER
 AND OCEAN WATER
- 14:00 Razif Harun, Fatimah Yusoff, Tatsuki Toda, Yoshiki Takayama, Nurul Farahin Abd Wahab INNOVATION OF MICROALGAL PHOTOBIOREACTORS
- 14:20 Wahidatul Husna Zuldin, Muhammad Dawood Shah
 EFFECTS OF SALINITY ON THE GROWTH OF ENIGMATIC GREEN
 MACROALGAE Caulerpa macrodisca (BRYOPSIDALES, CHLOROPHYTA) UNDER
 LABORATORY CONDITIONS
- 14:40 Maya Meiyana, Arief Rahman Rivaie, Silfester Basi Dhoe, Suryadi Saputra,
 Suciantoro Suciantoro
 MULTI LOCATION TEST OF TISSUE CULTURE SEAWEED CULTIVATION TO
 IMPROVE NURSERY GARDENS IN COASTAL LAMPUNG

Muhammad Rizal, Sunarty, Titik Hartani, Rusmini, Abu Abas
THE PRODUCTION OF MICROALGAE *Nannochlropsis oculata* FOR MARINE FISH
HATCHERY IN THE LOMBOK MARINE AQUACULTURE DEVELOPMENT CENTER

15:40 BREAK

16:00 Marwa. Kalasum Tuankotta

TREATMENT OF KOTONI SEAWEED SEEDS *Kappaphycus alvarezii* RESULTS OF PRE-ACCLIMATIZATION TISSUE CULTURE IN THE GREENHOUSE FOR CONTINUITY PRODUCTION OF QUALITY SEEDS

16:20 Sarwono, I.G. Pattipeilohy

MULTI LOCATION TEST OF SEAWEED SEEDS Eucheuma cottonii TISSUE CULTURE ON GROWTH IN SOUTHEAST MALUKU DISTRICT AND TUAL CITY

16:40 Valentina Retno Iriani, Yuwana Puja, Zahria Anis
THE EFFECT OF PLANTLET ACCLIMATIZATION TIME IN THE GREENHOUSE ON
THE GROWTH OF COTTONII Kappaphycus alvarezii SEEDLINGS

17:00 Khairil Jamal, Nur Muflich Juniyanto, Mrs Kasturi, Mrs Kasriani
PRODUCTION AND REARING OF SEAWEED PLANTLETS RESULTING FROM
THE GROWTH OF SPORES TO PRODUCE HIGH QUALITY SEAWEED Gracilaria
verrucosa SEEDS

AQUACULTURE SYSTEMS (INTEGRATED AQUACULTURE, RAS, BIOFLOC, AQUAPONICS)

Friday, July 5 09:00 - 15:40 Diamond 3 Chairs: Ravi Fotedar, Lestari Lakhsmi Widowati, i Salin Krishna

09:00 Muhammad Azhar, Devrim Memiş

UTILIZATION OF DUCKWEED Lemna minor AND FRESHWATER MUSSEL Anodonta cygnea AS LIVING ORGANISM BIOFILTER INTEGRATED IN THE FISH REARING OF RAINBOW TROUT Oncorhynchus mykiss JUVENILES USING RAS SYSTEMS

09:20 Wa Iba, Neneng Wahyuni, Muhaimin Hamzah, Michael Rice EFFECT OF MICROALGAE Tetraselmis chui (BUTCHER, 1959) ADDITION ON GROWTH AND SURVIVAL OF NILE TILAPIA Oreochromis niloticus (LINNAEUS, 1758) REARED IN LOW SALINITY BIOFLOC SYSTEM

- **09:40 Julie Clarice Salva**, Tomilyn Jan Garpa, Garry Bucol, Marie Antonette Juinio-Meñez INTEGRATIVE SANDFISH CULTURE SYSTEMS: CHALLENGES AND LESSONS LEARNED ON THE PILOT TRIALS IN BOLINAO, PANGASINAN, PHILIPPINES
- 10:00 Tomilyn Jan Garpa, Julie Clarice Salva, Garry Bucol, Marie Antonette Juinio-Meñez PILOT OF INTEGRATIVE SANDFISH Holothuria scabra CULTURE SYSTEMS IN BOLINAO, PANGASINAN, PHILIPPINES
- 10:20 BREAK
- **11:00 Norulhuda M. Ramli**, Nursyafiqah Saji, Khairudin Nurulhuda, Hazreen Harith THE EFFICACY OF *Azolla pinnata* AS A BIOFILTER IN A RECIRCULATING AQUACULTURE SYSTEM
- 11:20 Aulia Ilmi, Andri Hariadi, Iis Nurmawanti, Fathurrahman INCREASING THE PRODUCTIVITY OF KNIFEFISH SEEDS *Chitala* sp. WITH A RECIRCULATION SYSTEM (RAS)
- 11:40 Muhamad Faizal Mohd, Nur Nazifah Mansor, Muhamad Alif Hamli, Irfan Hakimi Roslan, Mohd Syafiq Syauqi Mohd Salim, Nur Amalin Sofea Abdul Rahim, Amira Syahidah Nordin BIO-FLOC TECHNOLOGY: IMPACT AND EFFECT OF WATER QUALITY TOWARDS BACTERIAL ISOLATION FROM Oreochromis spp. CULTURE IN CHINI, PAHANG
- 12:20 LUNCH
- 13:40 Silvia Martínez-Llorens, Jessica Brol, David S. Peñaranda, Tatiana Cascales, Micol Girotto, Xavier Lekube, Markel Sanz-Latorre, Ana M. Marhuenda, Pablo Sánchez-Jerez, Joao Rito, Ruben Olivares-Perona, Wilson Wasielesky, Ana Tomás-Vidal REARING OF Mugil cephalus IN BIOFLOC SYSTEM WITH LIGHT RESTRICTION AND USE OF PROBIOTIC: EFFECT ON ZOOTECHNICAL PERFORMANCE
- 14:00 Tri Heru Prihadi, Yohanna R. Widyastuti, Endhay K.M. Kontara,
 Lies Emmawati Hadie, Yuani Mundayana, Adang Saputra, Taukhid, Tutik Kadarini,
 Siti Murniasih, Edy F. Wadjdy, Sirodiana, Sudarmaji, Yoga J. Satria, Kusdiarti
 IMPROVING FISHPOND PRODUCTIVITY THROUGH THE APPLICATION OF
 AQUAPONICS SYSTEM: A COMPREHENSIVE STUDY ON THE SYMBIOTIC
 RELATIONSHIP BETWEEN CATFISH Clarias sp. AND HERBAL PLANT, INDIAN
 PENNYWORT Cantella asiatica

Nurul Amin, Azeezat Junaid, Mohd Salleh Kamarudin, Wahab Edaroyati,
Quazim Junaid, Nicholas Romano, Ravi Fotedar
PRODUCTIVITY AND ECONOMICS OF REDCLAW CRAYFISH Cherax
quadricarinatus AND HYBRID LEMON FIN BARB (Barbonymus gonionotus ♀
× Hypsibarbus wetmorei ♂) POLYCULTURE WITH OR WITHOUT PHYSICAL
SEPARATORS IN A CLOSED RECIRCUL ATING SYSTEM

SHRIMP/PRAWN NUTRITION AND FEEDS

Friday, July 5 09:00 - 17:20 Diamond 1 Chairs: Zuridah Merican, Deni Mulyono, Fanny Yasumaru, Ir. Ujang Komarudin

- **09:00** Hoang Thi My Dung Le, Philippe Dhert

 DOES THE NUTRITION AT THE EARLY STAGE HAVE SUBSEQUENT EFFECTS

 ON THE LATER STAGE IN THE SHRIMP *Litopenaeus vannamei* CULTURE?
- 09:20 Silvia Martínez-Llorens, Raquel Serrano, Yosu Candela, Ana Tomás-Vidal, David S. Peñaranda, Ignacio Jauralde, Miguel Jover-Cerda, Laura Carpintero, Juan S. Mesa, José L. Limón, Javier Dupuy, Andrés Donadeu, Guillermo Grinday, Judit Macías-Vidal ASSESSMENT OF FOUR INERT DIETARY MARKERS FOR THE ESTIMATION OF APPARENT DIGESTIBILITY COEFFICIENTS IN PRACTICAL DIETS FOR WHITE LEG SHRIMP Litopenaeus vannamei (BOONE, 1931)
- 09:40 Aurélien Dornic, Audrey Boulier, Nolwenn Callac, David Mazurais, Dominique Pham, Nelly Wabete, José-Luis Zambonino-Infante ASSESSMENT OF SHRIMP FEED DIGESTIBILITY UTILIZING DEFATTED Hermetia illucens MEAL TO PARTIALLY SUBSTITUTE FISH MEAL IN JUVENILE Penaeus stylirostris FEEDS: IN VITRO AND IN VIVO METHODS
- 10:00 Rajalakshmi Kalaivanan, Nathan Felix, Amit Ranajn, Mir Ishfaq Nazir, Sathishkumar Govindharaj GROWTH PERFORMANCE, APPARENT DIGESTIBILITY COEFFICIENTS, ANTIOXIDANT AND DIGESTIVE ENZYMES, AND IMMUNE ACTIVITIES OF PACIFIC WHITE SHRIMP Penaeus vannamei FED WITH A COMBINATION OF NOVEL FEED INGREDIENTS
- 10:20 BREAK
- 11:00 Yeonji Lee, Kyeong-Jun Lee
 DIETARY PROTEIN LEVEL AFFECT PYRIDOXINE REQUIREMENT OF PACIFIC
 WHITE SHRIMP Penaeus vannamei

- 11:20 Nalin Medagoda, Udith Wijemanna, Mirasha Hasanthi, Kyeong-Jun Lee
 DIETARY THIAMINE REQUIREMENT AND ITS EFFECT ON GROWTH, INNATE
 IMMUNITY AND DIGESTIVE ENZYME ACTIVITY OF PACIFIC WHITE SHRIMP
 Penaeus vannamei POST-LARVAE
- 11:40 Sua Kim, Kyeong-Jun Lee
 DIETARY VITAMIN A REQUIREMENT FOR PACIFIC WHITE SHRIMP Penaeus
 vannamei
- 12:00 Alberto Nunes, Jordana Leite, Caio Gomes, Ragnhild Dragøy, Lena Burri MINIMUM DIETARY LEVEL AND MIX RATIO OF KRILL MEAL AND FISH MEAL TO ELICIT FEED INTAKE AND GROWTH PERFORMANCE IN JUVENILE Penaeus vannamei
- 12:20 Nicolas Tanrattana, Sophie Reys, Romi Novriadi, Pierre Fortin
 EVALUATING THE EFFECT OF ECONOMIX ON THE GROWTH PERFORMANCE
 AND HEALTH CONDITION OF PACIFIC WHITE SHRIMP *Litopenaeus vannamei*FED WITH DIFFERENT I EVELS OF PALM KERNEL MEAL
- 12:20 LUNCH
- 13:40 Mirasha Hasanthi, Rutchanee Chochikachinda, Kyeong-Jun Lee EXOGENOUS PROTEASE AND PHYTASE SUPPLEMENTATION IMPROVED GROWTH, FEED UTILIZATION, INNATE IMMUNITY, NUTRIENT DIGESTIBILITY AND PATHOGENIC RESISTANCE OF PACIFIC WHITE SHRIMP Litopenaeus vannamei
- 14:00 Stijn Bruwiere, Katelijne Bekers
 APPLICATION OF NUCLEOTIDES IN SHRIMP DIETS BEFORE AND AFTER
 DISEASE CHALLENGE: EFFECTS ON PERFORMANCE, DIGESTIVE ENZYMES
 AND IMMUNOMODULATION
- 14:20 I-Tung Chen, Carla A. Souza, Rayner Gonzalez-Prendes, Waldo G. Nuez-Ortín GAINING INSIGHT INTO THE HEALTH PROMOTING MECHANISMS OF A PHYTOBIOTIC-BASED ADDITIVE IN HEPATOPANCREAS OF WHITE SHRIMP Penaeus vannamei
- 14:40 Ana Rodiles, Eric Leclercq, Mathieu Castex
 IN-FEED PROBIOTICS AND WATER BIOREMEDIATION IMPROVED GROWTH,
 BIOMASS, SURVIVAL, WATER CHEMISTRY AND MICROBIOTA IN WHITELEG
 SHRIMP Litopenaeus vannamei IN VIETNAM

Macarena M. Jurado, María J. Estrella-González, Miguel Rodilla, Silvia Falcó, Silvia Martínez-Llorens, Ana Tomás, Miguel Jover, Francisco J. Moyano, Juan A. López-González
BIOFLOC CONSERVATION: ASSESSMENT OF PRESERVATION PROTOCOL AND

David S. Peñaranda, Javier Gómez-Aguillera, Sara Ferrando-Juan,

- BIOFLOC CONSERVATION: ASSESSMENT OF PRESERVATION PROTOCOL AND RE-INOCULATION
- 15:20 Silvia Martínez-Llorens, Yosu Candela, Wilson Wasielesky, Marcelo Borges Tesser, Ivanilson Lima Santos, David S. Peñaranda, Ignacio Jauralde, Silvia Martínez-Llorens, Luís Henrique Poersch EFFECT OF S. platensis AS AN ADITIVE IN EXPERIMENTAL DIETS ON THE GROWTH OF WHITELEG SHRIMP L. vannamei
- 15:40 BREAK

15:00

- 16:00 Marta Arredondo, Maria Érica da Silva Oliveira, Joice Teixeira Souza, Matheus Ramalho de Lima, Beatriz Saldaña, Marisela Arturo-Schaa EFFECT OF BUFFER PROTECTED SODIUM BUTYRATE IN THE DIET OF Penaeus vannamei SHRIMP CHALLENGED WITH NITRITE
- **Jolien van Soest**, F. Atienza, J. Giovanni, O. Jintasataporn, Veerl Vandendriessche THE EFFECT OF DIFFERENT DIETARY SELENIUM SOURCES ON GROWTH PERFORMANCE AND DISEASE RESISTANCE IN WHITE LEG SHRIMP
- 16:40 David S. Peñaranda, Sara Ferrando-Juan, Javier Gómez-Aguilera, Silvia Falcó, Silvia Martínez-Llorens, Ana Tomás-Vidal, Miguel Jover, Yosu Candela, Wilson Wasielesky, Miguel Rodilla FISHMEAL REPLACEMENT BY ALTERNATIVE PROTEIN SOURCES IN DIETS FOR Penaeus vannamei UNDER BIOFLOC TECHNOLOGY PRODUCTION
- 17:00 David S. Peñaranda, Tatiana Cascales, Silvia Martínez-Llorens, Wilson Wasielesky, Ana M. Marhuenda, Pablo Sánchez-Jerez, Yosu Candela, Mikol Girotto, Joao Rito, Jessica Brol, Miguel Jover, Ana Tomás-Vidal STUDY OF THE PROBIOTIC POTENTIAL EFFECT ON Penaeus vannamei PERFORMANCE IN BIOFLOC TECHNOLOGY (BFT)

WOMEN IN AQUACULTURE

Friday, July 5 11:00 - 12:20 Crystal 1 Chairs: Bibha Kumari, Yuni Puji Hastuti

11:00 Bibha Kumari, Abhiniti Vats

THE PRESENT POSITION OF WOMEN IN THE FISH MARKETING SECTOR IN PATNA, BIHAR, INDIA

11:20 Nurliyana Mohamad

WOMEN EDUCATORS SHAPING THE FUTURE OF SUSTAINABLE AQUACULTURE

11:40 Ashmita Pandey, Shubham Soni, B.B. Nayak, Amjad Balange FROM SUPPORTING ROLES TO LEADERS: WOMEN DRIVING CHANGE IN ODISHA'S FISHERIES SECTOR

12:00 PANEL DISCUSSION

WATER QUALITY, USAGE AND MANAGEMENT

Friday, July 5 13:40 - 15:40 Crystal 5 Chairs: David Gianmarco, Kukuh Nirmala

13:40 Kanaiya Naik, Kerry Caslow

USING MONITORING EQUIPMENT FOR REAL-TIME ANALYSIS OF WATER QUALITY CONSTITUENTS

14:00 Gianmarco David, Iara Carolina Penariol

MODELING ENVIRONMENTAL CARRYING CAPACITY FOR CAGE AQUACULTURE: A CASE STUDY OF A SUBTROPICAL HYDROELECTRIC RESERVOIR

- 14:20 Prabowo Yoga Wicaksana, Lukman Hakim, Syauqy Nurul Aziz
 EFFLUENT IN SHRIMP FARMING PREDICTION WITH SATELLITE IMAGERY AND
 MACHINE LEARNING
- 14:40 Vivi Eka Indrayani, Joko Santosa, Riky Rismunandar CHEMICAL PARAMETERS WATER QUALITY MAPING 2023 IN WEST NUSA TENGGARA
- 15:00 Syaripuddin, Wa Nuraini
 STUDY ON THE SUSTAINABILITY OF ANTIMICROBIAL USE (AMU) AND
 ANTIMICROBIAL RESISTANCE (AMR) IN MARINE FISH CULTIVATION IN AMBON
 BAY

ORNAMENTALS FISH AND SYSTEMS

Friday, July 5 13:40 - 16:00 Diamond 5 Chairs: Zarirah Mohamed Zulperi, Joni Hariyadi

- 13:40 Noah Esmaeili, Mahyar Zare, Mahsa Hosseini, Sobhan Akhavan, Hossein Hosseini, Michael Salini, Mohammad Kazempour, Artur Rombenso EARLY MILD STRESS IN OSCAR Astronotus ocellatus: WHAT WE HAVE LEARNED SO FAR
- 14:00 Ali Hafiz Alqodri, Dimas Aditia Putra, Mulyanto
 SEA HORSE SPECIES CULTIVATION Hippocampus kuda AND Hippcampus comes
 AT THE MAIN CENTER FOR MARINE AQUACULTURE (MCMA) LAMPUNG
- 14:20 Hariyano, Heru Salamet, Agam Tri Wibowo
 DOMINANCE AND VALUATION OF CLOWNFISH ORNAMENTAL FISHPICASSO
 VARIANT Amphiprion percula
- 14:40 Adi Hardiyanto, Heru Salamet
 VARIATIONS OF FILTER MEDIA IN BREEDING CLOWNFISH ORNAMENTAL FISH
- 15:00 Agam Tri Wibowo, Heru Salamet, Hariyano
 MULTIVARIAN PRODUCTION OF CLOWNFISH MARINE ORNAMENTAL FISH
 Amphiprion sp. IN SUPPORTING THE GOVERNMENT AID PROGRAM AND
 FULFILLING THE NEEDS OF THE MARINE ORNAMENTAL FISH MARKET

EPIDEMIOLOGY AND HEALTH MANAGEMENT

Friday, July 5 13:40 - 17:40 Crystal 3 Chairs: Ina Salwany M Yasin, Alim Isnansetyo

- 13:40 Amira Syahidah Nordin, Nur Nazifah Mansor, Rimatulhana Ramly, Asnor Azrin Sabuti CO-INFECTIONS OF Edwardsiella ictaluri AND Aeromonas hydrophila IN CAGE CULTURED Pangasianodon hypophthalmus IN PAHANG RIVER, MALAYSIA
- 14:00 Helmi Husaini Zainal Fithri, Nurasyikin Hamzah, Nur Nazifah Mansor, Nurul Hidayah Samsulrizal, Azzmer Azzar Abdul Hamid VIRTUAL SCREENING OF POTENTIAL THERAPEUTIC AGENT FOR STREPTOCOCCOSIS VIA LIGAND-BASED PHARMACOPHORE MODELLING
- 14:20 Mira Mawardi, Ayi Santika, Setiadi, Annisa Wening Maharani Putri, Angela Mariana Lusiastuti ANTIBIOTIC-RESISTANT THREADS OF Aeromonas hydrophila AS A MAJOR PATHOGEN IN INDONESIA FRESHWATER AQUACULTURE

- 14:40 Padel Purnama, Mubinun
 DEVELOPMENT OF JICA TILAPIA *Tilapia* sp. BROODSTOCK WITH LOCAL
 ISOLATE VACCINE FOR STREPTOCOCCOSIS CONTROL AND UTILIZATION IN
- 15:00 Loc Tran, Robert Mutunga, Yin Min Thant, Phuc Hoang, Thanh Chau HOLISTIC MANAGEMENT STRATEGIES FOR TRANSLUCENT POST LARVAE DISEASE (TPD) IN WHITE LEG SHRIMP CULTURE

SMALL SCALE HATCHERY (ANALYSIS USING AHP-SWOT)

ENVIRONMENTAL PROBLEMS, BIODIVERSITY, CLIMATE CHANGE, AND ADAPTATIONS IN AQUACULTURE AND FISHERIES

Friday, July 5 13:40 - 17:40 Crystal 1 Chairs: Bibha Kumari, Yushinta Fujaya

- 13:40 Bibha Kumari
 - THE CURRENT STATUS OF BIODIVERSITY OF INDIGENOUS FISH SPECIES AND THEIR CONSERVATION STRATEGY IN BIHAR (INDIA)
- **14:00** Ashmita Pandey, Manjusha L., B.B. Nayak, Sanath Kumar H., Amjad Balange BACTERIAL REMEDIATION OF FISH SCALE BIOWASTE: A SUSTAINABLE APPROACH FOR ECO-FRIENDLY WASTE MANAGEMENT
- 14:20 Yuni P. Hastuti, Shabrina N. Fatimah, Hardi Pitoyo, Iwan Sutanto,
 Ahmad R. Kurniawan, Anggi Siregar, Setyo Pertiwi, Usaid A. Anshorullah
 NITROGEN AND PHOSPHORUS: SHORT COMMUNICATION THE DYNAMICS ON
 THE STATUS OF CHLOROPHYLL-A, BACTERIA AND PLANKTON IN THE SHRIMP
 Litopenaeus vannamei OF ENVIRONMENTAL CULTURE
- 14:40 Herinto, Maskar Jayadi, Suzana M Ratriningrum, Ita Rizkiyanti, Fajar Anggraeni, I Gde Buddha Adyana Yasa, Hasanuddin, Miftahul Huda, Ibnu Faturohman EFFECTIVENESS OF WASTEWATER MANAGEMENT IN AREA-BASED VANAME SHRIMP FARMING IN KEBUMEN REGENCY. CENTRAL JAVA. INDONESIA
- 15:00 Lisa Fandana, Faisal Abdullah, Abrar Muslim, Suhendrayatna, Hesti Meilina PHOSPATE ADSORPTION BY BONE COAL BOTTOM ASH ON SHRIMP POND WASTE
- **15:20** Andrian Garbono, Julinasari Dewi, Nana Lestari, Wahyu Widiatmoko, Febri Nugroho FISH DISEASES AND ENVIRONMENTAL MONITORING IN LAMPUNG BAY
- 15:40 BREAK

16:00 Muawanah, Arief Prihaningrum, Lydia Erawati, Wahyu Widiatmoko, Febri Nugroho, Kurniastuty
HAB'S OF Margalefidinium polykrikoides, A CHALLENGE FOR FISH FARMER IN

HAB'S OF Margaletidinium polykrikoides, A CHALLENGE FOR FISH FARMER IN LAMPUNG BAY

16:20 Siti Aisyah Razli, Azlan Abas, Asmida Ismail, Murnira Othman,
Anis Asma Ahmad Mohtar, Nor Hafizah Baharudin, Kadaruddin Aiyub,
Mohd Talib Latif
EPIPHYTIC MICROALGAE AS BIOLOGICAL INDICATORS FOR CARBON
MONOXIDE CONCENTRATIONS IN DIFFERENT AREAS OF PENINSULAR
MAI AYSIA

- 16:40 Anes Jayanti, Caleb Gardner, Rafael León, Ingrid Van Putten, Emily Ogier
 THE EFFECT OF COMMERCIAL PUERULUS HARVESTS ON ADJANCENT
 LOBSTER FISHERIES IN INDONESIA
- 17:00 Belinda Yaxley, Kypher Shreves
 LIVE PHYTOPLANKTON ANALYSIS SYSTEM A NEW INNOVATIVE WAY TO
 MONITOR HARMFUL ALGAL BLOOMS IN AQUACULTURE PRODUCTION
 SYSTEMS

EDUCATION, EXTENSION AND TECHNOLOGY TRANSFER

Friday, July 5 16:00 - 17:40 Crystal 5 Chair: Fanny Yasumaru

- 16:00 Elliot Nelson, Barbara Evans
 CREATING WORKFORCE PATHWAYS BY EDUCATING YOUTH THROUGH
 AQUACULTURE
- 16:20 Lauren Jescovitch, Elliot Nelson, Amy J. Schrank SUPPORTING AQUACULTURE EDUCATION AS A COLLABORATIVE IN THE U.S. GREAT LAKES REGION
- 16:40 PANEL DISCUSSION