PLENARY
Tuesday, May 20  9:00 - 10:40  Grand Ballroom

9:00  Greeting and Awards

9:10  Jae-Hak Son
AQUACULTURE IN KOREA: STATUS AND PROSPECTS

9:40  Hiroshi Saito
HUMAN HEALTH AND FOOD

10:10  Yoshihito Ito
SUSTAINABLE AQUACULTURE IN ASIA FOR HUMAN WELLBEING

SHRIMP FARM DESIGN AND MANAGEMENT
Tuesday, May 20  11:10 - 12:50  Room 201
Chairs: Tzachi M. Samocha, JongSheek Kim

11:10  Rattanawan Tam Mungkung, Shabbir H. Gheewala
SHIFTING FROM BLACK TIGER PRAWN TO PACIFIC WHITE SHRIMP: A PATHWAY TOWARDS SUSTAINABILITY?

11:30  Pingsun Leung, Run Yu, Paul Bienfang
AN OPTIMAL PARTIAL HARVESTING MODEL FOR INTENSIVE SHRIMP CULTURE

11:50  Hector A. Gonzalez-Ocampo
SUSTAINABILITY INDEX APPLIED TO SEMIARID SHRIMP FARMS IN THE GULF OF CALIFORNIA, MEXICO

12:10  Mahmudul Karim
PRAWN FARMING APPROACH IN BANGLADESH IN COMPLIANCE WITH THE FOOD SAFETY, ENVIRONMENT AND HUMAN RIGHTS CODES

12:30  Qiuming Lai, Yi Yang, Yunhao Qiu
APPLICATION OF WATER PURIFICATION TECHNOLOGY IN INTENSIVE SHRIMP CULTURE
14:30 Sayed Samaneh Mosavi, Hossein Khara, Ali Asghar Saeedi, Maryam Ghiyasi, Azin Zahedi
EVILOUTION OF INCIDENCE AND IDENTIFICATION OF BACTERIAL AGENTS STREPTOCOCCOSIS IN ELECTED RAINBOW TROUT *Oncorhynchus mykiss*
PROPAGATION AND CULTURE FARMS IN MAZANDARAN PROVINCE IN IRAN

14:50 Jeffrey Silverstein, Roger Vallejo, Yniv Palti, Caird Rexroad III, Tim Welch, Gregory Wiens
HERITABILITY OF BACTERIAL COLD-WATER DISEASE RESISTANCE IN RAINBOW TROUT AND THE RESPONSE TO SELECTION

15:10 Javid Mortazavi Tabrizi, Farhang Sasani, B. Jalali
STUDY OF SERUM LEVELS OF CREATININE, UREA AND ACID URIC IN RAINBOW TROUT *Oncorhynchus mykiss* AFFLICTED TO NEPHROCALCINOSIS

15:30 BREAK

16:00 Amin Nematollahi, Mojtaba Bonyadian, Saeid Nikpour
INTERACTIONS OF *Flavobacterium psychrophilum* STRAINS OF HIGH AND LOW VIRULENCE WITH THE INTESTINAL TRACT OF RAINBOW TROUT *Oncorhynchus mykiss*

16:20 Javid Mortazavi Tabrizi, Mahmood Asadi, Karamouz Habib
EFFECT OF YEAST-PROBIOTIC *Saccharomyces cerevisiae* SUPPLEMENTATION ON GROWTH PROMOTERS AND SURVIVAL RATE OF GROWER RAINBOW TROUT

16:40 Hossein Emadi, Abbas Matinfar, Shohreh Baay
EFFECTS OF COBALT AS GROWTH PROMOTANT ON THE GROWTH OF RAINBOW TROUT *Oncorhynchus mykiss*

17:00 Mohammad Sayyad Bourani, Behrooz Abtahi, Mahmoud Bahmani, Ludmila Krayushkina, Ali Reza Valipour, Ali Hallajian
STUDY OF SMOLTIFICATION IN THE CASPIAN TROUT *Salmo trutta caspius*

17:20 David J. Kyle, Jaime Tobar, Tomislav Jakovljevic, Paula Aedo, Moti Harel
ORAL VACCINATION OF ATLANTIC SALMON *Salmo salar* AGAINST *Salmonid rickettsial septicaemia* (SRS)

**FRESHWATER PRAWNS**

Tuesday, May 20  11:10 - 17:40  Room 101
Chairs: C. Mohanakumuran Nair, Chang Hee Han

11:10 Mrityunjoy Kunda, M. E. Azim, M. A. Wahab
COMPARISON OF EFFECTS BETWEEN LOCALLY MADE AND COMMERCIAL DIETS ON THE GROWTH AND PRODUCTION OF FRESHWATER PRAWN *Macrobrachium rosenbergii* IN RAIN-FED FALLOW RICE FIELDS

11:30 Mizzu Kyaw Khine
PRELIMINARY STUDY ON BROODSTOCK TECHNOLOGY WITH *Macrobrachium* SPECIES

11:50 Maria Lourdes Cuvin-Aralar, Emiliano V. Aralar
COMPARISON OF PERFORMANCE OF TWO POPULATIONS OF *Macrobrachium rosenbergii* CULTURED IN LAKE-BASED CAGES
12:10  Wagner C. Valenti, Liliam de A. Hayd, Daniel Lemos  
EFFECTS OF AMBIENT NITRITE ON DEVELOPMENT AND METABOLISM OF  
Macrobrachium amazonicum Larvae  

12:30  Devika Pillai, Jean Robert Bonami, Joannes Sri Widada, C. Mohanakumaran Nair,  
Divya V. Haridas, P. M. Sherief  
DIAGNOSTICS FOR DETECTION OF WHITE TAIL DISEASE OF GIANT FRESHWATER  
PRAWN Macrobrachium rosenbergii – A REVIEW  

12:50  LUNCH  

13:50  Amnart Poapolathep, Saranya Poapolathep, Usuma Jermnak, Kanjana Imsilp,  
Nuthapong Wannapat, Aksorn Chareonsan, Narumol Klangkaew, Napasorn Kusujarit,  
Susumu Kumagai  
DISPOSITIONS AND RESIDUE DEPLETION OF OXYTETRACYCLINE IN MUSCLE TISSUE  
OF GIANT FRESHWATER SHRIMP Macrobrachium rosenbergii  

14:10  H. Shivananda Murthy, Prakash Pavadi  
ROLE OF β-1,3-GLUCAN ON GROWTH AND HEALTH MANAGEMENT IN FRESHWATER  
PRAWN Macrobrachium rosenbergii  

14:30  Kesinee Laisutisan, Niti Chuchird, Chalor Limsuwan, Timothy William Flegel  
TWO NEW VIRUSES IN CULTURED GIANT FRESHWATER PRAWNS Macrobrachium  
rosenbergii IN THAILAND  

14:50  Balasaheb B. G. Kulkarni, S. G. Syeddain Zaidi, Sandhya Kupekar, Nchuembeni Humtose  
BIOCHEMICAL ASPECTS OF COPPER TOXICITY TO THE FRESHWATER PRAWN  
Macrobrachium rosenbergii  

15:10  Aneykutty Joseph, C. Mohanakumaran Nair, P. M. Sherief, Alphi Korath, A. V. Dhanya  
REPRODUCTIVE PERFORMANCE OF BROODSTOCK OF Macrobrachium rosenbergii  
(DE MAN) IN CAPTIVITY FED WITH DIFFERENT WET FEEDS  

15:30  BREAK  

16:00  Uthairat Na-Nakorn, Wikrom Rangsin  
APPLICATION OF THE NEOFEMALE TECHNOLOGY FOR A PRODUCTION OF ALL-MALE  
PRAWN: A CHALLENGE FOR COMMERCIALIZATION  

16:20  S. M. S. Rahman, M. Kunda, M. A. Islam, M. E. Azim, M. A. Wahab  
EFFECTS OF SELECTIVE HARVESTING AND CLAW ABLATION ON GROWTH AND  
PRODUCTION OF ALL MALE PRAWN AND FINFISH IN POLYCULTURE SYSTEM  

16:40  Amrit N. Bart, Pham Truong  
REPRODUCTION OF GIANT FRESHWATER PRAWN Macrobrachium rosenbergii (DE MAN)  
IN DIFFERENT SALINITIES
16:55  S. Wuertz, J. Gessner, F. Kirschbaum, W. Kloas  
THE INFLUENCE OF REARING DENSITY AS ENVIRONMENTAL STRESSOR ON CORTISOL RESPONSE OF SHORTNOSE STURGEON Acipenser brevirostrum

17:10  Donghoon Lee, Sungryul Lim, Jungjo Han, Sungyoul Hong, Jisung Choi, Jeongdae Kim  
OSMOREGULATORY AND SEROLOGICAL CHANGES OF JUVENILE STERLET STURGEON Acipenser ruthenus FED DIETS WITH OR WITHOUT GARLIC EXTRACTS IN DIFFERENT SALINITIES

AES - SESSION ON BFT  
Tuesday, May 20  13:50 - 17:40   Room 201  
Chairs: Yoram Avnimelech, Xiao-Hua Zhang

13:50  Yoram Avnimelech  
BFT, BIO-FLOCS TECHNOLOGY: WHAT IS IT AND HOW TO USE IT?

14:20  Craig L. Browdy, Jesus Venero, Brad McAbee, Beth Thomas, Al Stokes, D. Allen Davis, John W. Leffler  
RECENT ADVANCES IN SUSTAINABLE SUPER-INTENSIVE SHRIMP PRODUCTION SYSTEM DEVELOPMENT AND INTEGRATION OF MICROBIAL BIOFLOC COMMUNITY STRUCTURE WITH UNIQUE FEEDS TO MEET PROPOSED USDA ORGANIC CERTIFICATION STANDARDS

14:50  Angelito O. Abaoag  
MANAGEMENT OF MICROBIAL FLOCCULATION IN SHRIMP PONDS BY CONTROLLED INOCULATION OF BACTERIAL MIXED CULTURES

THE EFFECT OF C/N RATIO CONTROL ON PRODUCTION OF FRESHWATER PRAWN Macrobrachium rosenbergii IN PONDS IS ADDITIVE TO SUBSTRATE ADDITION FOR PERiphyTON DEVELOPMENT

15:30  BREAK

16:00  Tzachi M. Samocha, Jong Sheek Kim, Susmita Patnaik, Abdul Mehdi Ali, Timothy C. Morris  
PRODUCTION, WATER QUALITY, NUTRIENT BUDGET AND PRELIMINARY COST ANALYSIS OF A SUPER-INTENSIVE GROWOUT SYSTEM FOR THE PACIFIC WHITE SHRIMP Litopenaeus vannamei OPERATED WITH NO WATER EXCHANGE

16:20  Demin Zhang, Lijun Qian, Dan Wen  
INVESTIGATION OF HETEROTROPHIC BACTERIA DIVERSITY IN Portunus trituperculatus REARING POND

16:40  ROUNDTABLE DISCUSSION

17:00  Maliwan Kutako, Paveena Tapaneyaworawong, Tawan Limpiyakorn, Sorawit Powtongsook, Piamsak Menasveta  
EFFECT OF THE ORGANIC CARBON ON NITROGEN CONVERSION AND SEDIMENT BACTERIAL COMMUNITY IN AQUACULTURE SOIL BOTTOM
17:20 Harvey J. Pine, Claude E. Boyd
MAGNESIUM ADSORPTION BY BOTTOM SOILS IN PONDS FOR INLAND CULTURE OF MARINE SHRIMP IN ALABAMA, USA

**SHRIMP GENETICS, BROODSTOCK AND HATCHERY MANAGEMENT**
Tuesday, May 20 13:50 - 17:40 Room 103
Chairs: Nigel Preston, Won Kim

13:50 Jim Wyban
WORLD SHRIMP FARMING REVOLUTION: INDUSTRY IMPACT OF DOMESTICATION AND BREEDING OF SPF *P. vannamei*

14:10 Teerapong Ho, Wansika Kiatpathomchai, Sakol Panyim, Apinunt Udomkit, Chalermporn Ongvarrasopane
MOLECULAR AND FUNCTIONAL CHARACTERIZATION OF cDNA ENCODING A NOVEL TYPE OF MOLT-INHIBITING HORMONE OF *Penaeus monodon*

14:30 Tom J. Dixon, Greg J. Coman, Russell E. Lyons, Stuart J. Arnold, Leanne Dierens, Melony J. Sellars, Nigel P. Preston, Yutao Li
UTILISATION OF DNA MICROSATELLITE MARKERS IN SHRIMP DOMESTICATION PROGRAMMES IN AUSTRALIA

14:50 Melony J. Sellars, Tom J. Dixon, Greg J. Coman, Nigel P. Preston
REPRODUCTIVELY STERILE, ALL-FEMALE SHRIMP FOR COMMERCIAL CULTURE

15:10 BREAK

16:00 Brad Argue, John Benzie, James Brock
FIELD TESTING OF FAMILY PERFORMANCE IN THE MOANA *P. monodon* GENETIC IMPROVEMENT PROGRAM

16:20 Aye Aye Naing
MORPHOLOGICAL VARIATION STUDY OF LOCALIZED WILD POPULATIONS OF BLACK TIGER SHRIMP *Penaeus monodon* AND GIANT FRESHWATER PRAWN *Macrobrachium rosenbergii*

16:40 Hui Gong, Donghuo Jiang, Adrian Rojas, Lorenzo Juarez
EVALUATION OF FAMILY EFFECT ON *Penaeus vannamei* REFRACTORY TO IHHNV INFECTION

17:00 Shaun M. Moss, Steve M. Arce, Dustin R. Moss, Clete A. Otoshi
GROWTH AND MATURATION OF A GLOBAL SHRIMP FARMING INDUSTRY: OPPORTUNITIES AND CHALLENGES
GENERAL NUTRITION CONTRIBUTED
Wednesday, May 21  9:00 - 10:40  Room 108
Chair: Ewen McLean, Kang, Do-Hyung

9:00  John Sweetman, S. Torrecillas, A. Dimitroglou
THE ROLE OF DIETARY MANNAN OLIGOSACCHARIDES IN IMPROVING HEALTH AND PERFORMANCE IN FISH

9:20  Minh Anh Pham, Kyeong-Jun Lee
EFFECT OF FERMENTED SOYBEAN MEAL ON GROWTH PERFORMANCE AND IMMUNE RESPONSE OF PARROT FISH Oplegnathus fasciatus

9:40  Sang-Min Lee, Joo-Young Seo
EFFECTS OF PROTEIN AND LIPID LEVELS IN PRACTICAL DIETS ON GROWTH AND BODY COMPOSITION OF JUVENILE SEA CUCUMBER Stichopus japonicus

10:00 Philip James, Philip Heath
SEA URCHIN ROE ENHANCEMENT – A SUMMARY OF RESEARCH IN NEW ZEALAND

10:20 Do-Hyung Kang, Abu Affan, Hyun Soo Rho, Sang-Gyu Paik, Heung-Sik Park
WHAT ARE THE MAIN FOOD ITEMS FOR CORAL REEF HOLOTHURIAN Holothuria atra (JÄGER, 1833) AT THE SEAGRASS BED IN CHUUK, FSM?

FRESHWATER PRAWNS - CONTINUED
Wednesday, May 21  9:00 - 10:20  Room 101
Chairs: C. Mohanakumaran Nair, Chang Hee Han

9:00  Weimin Miao
TREND OF FRESHWATER PRAWN CULTURE IN CHINA AND ITS PROSPECT

9:20  A. L. Muthuraman
ADOPTION OF BEST MANAGEMENT PRACTICES FOR INCREASING PRODUCTION AND PRODUCTIVITY OF GIANT FRESHWATER PRAWN IN TAMILNADU, INDIA

9:40  K. R. Salin, C. Mohanakumaran Nair
RICE - PRAWN Macrobrachium rosenbergii FARMERS CHANGING TO ORGANIC MODE IN PADDY FIELDS OF KUTTANAD, KERALA, INDIA
16:20 Fu-Sung Chiang, Wei-Ren Huang
A TECHNICAL EFFICIENCY ANALYSIS OF TILAPIA PRODUCTION IN TAIWAN USING LOG BOOK DATA

16:40 Jennifer L. Clark, Charles M. Adams, Ferdinand F. Wirth, Richard N. Weldon, P.J. van Blokland
USE OF A STOCHASTIC SIMULATION MODELING APPROACH TO ASSESS AQUACULTURE INVESTMENT RISK

SHRIMP DISEASES
Wednesday, May 21  9:00 - 17:40  Room 201
Chairs: Boonsirm Withyachumnarnkul, Hyun Do Jeong

9:00  Qiufen Li, Yan Zhang, Xiaoxi Wang, Chengyin Shi
QUANTITATIVE DETECTION OF TWO STRAINS OF FUNCTIONAL BACTERIA IN BIOREMEDIATION BY COMPETITIVE PCR

9:20  Ana Denisse Re Araujo, Ricardo A. González, Fernando Díaz, Alexei Licea, Noemi Sanchez
THERMOREGULATORY BEHAVIOR AND OXYGEN CONSUMPTION OF ADULT WHITE SHRIMP Litopenaeus vannamei (BOONE)

9:40  Fangfang Bai, Xiao-Hua Zhang
INVOLVEMENT OF QUORUM SENSING IN THE VIRULENCE OF Vibrio harveyi AND ITS SIGNAL INTERFERENCE

10:00 Donghuo Jiang, Hui Gong, Adrian Rojas, Lorenzo Juarez
QUANTITATIVE EFFECTS OF IHHNV PREVALENCE ON PRODUCTION PERFORMANCE OF THE PACIFIC WHITE SHRIMP Penaeus vannamei

10:20 Pratchayapong Yasri, Sakol Panyim, Apinunt Udomkit
SILENCING INFECTIOUS HYPODERMAL AND HEMATOPOIETIC NECROSIS VIRUS (IHHNV) IN SHRIMP BY DOUBLE-STRANDED RNA

10:40 BREAK

11:10 John AH Benzie, Brad Argue, James Brock
DISEASE IN SHRIMP: STRATEGIES FOR GENETIC IMPROVEMENT PROGRAMS

11:30 Anchalee Tassanakajon, Rungrat Jetivaropas, Piti Amparyup, Paul S. Gross
A MASQUERADE-LIKE SERINE PROTEINASE HOMOLOGUE FROM BLACK TIGER SHRIMP Penaeus monodon IS A PATTERN RECOGNITION PROTEIN

11:50 Wansadaj Jaroenram, Wansika Kiatpathomchai, Timothy William Flegel
DEVELOPMENT OF LOOP-MEDIATED ISOThERMAL AMPLIFICATION USING A SIMPLE TURBIDITY FOR DETECTION OF TAURA SYNDROME VIRUS

12:10 Pattira Pongtippatee, Somjai Wongtripop, Manee Lervipas, Jareeporn Reongsri, Boonsirm Withyachumnarnkul
DIFFERENT SUSCEPTIBILITY TO WHITE-SPOT SYNDROME VIRUS INFECTION IN FAMILIES OF THE BLACK TIGER SHRIMP Penaeus monodon
12:30  **Eleonor A. Tendencia**, Roselyn C. Usero, Roel H. Bosma, Johan A. J. Verreth  
TEMPERATURE FLUCTUATIONS, LOW SALINITY, AND WATER MICROFLORA ARE RISK FACTORS FOR WSSV OUTBREAKS IN POND CULTURE OF *Penaeus monodon*

12:50  **LUNCH**

13:50  **Linh Nguyen**  
INFLUENCE OF DIFFERENT SPECIES ALTERNATIVES AND STOCKING DENSITY ON SHRIMP PERFORMANCE AND HEALTH IN THUA THIEN HUE AND BINH DINH AQUACULTURE SYSTEMS

14:10  **Pin-Hsing Chou**, Ping-Hua Teng, Fu-Chun Lee, Ping-Feng Sung, Bor-Rung Ou, Chen Su  
“I CARE SO I SCREEN” – A NEW TECHNIQUE BRINGS INSTANT SENSITIVITY ON SHRIMP VIRUS DIAGNOSIS

14:30  **Thanawat Sripaijit**, Timothy W. Flegel, Saengchan Senapin  
CHARACTERIZATION OF A SHRIMP SERINE PROTEASE HOMOLOG, A BINDING PROTEIN OF YELLOW HEAD VIRUS

14:50  **Jiraporn Rojinnakorn**, Pakkakul Sangsuriya, Sudkhate Monthathong, Saengchan Senapin, Sirawut Klinbunga, Timothy Flegel  
SYSTEMIC PROGRAM CELL DEATH IN VIRAL INFECTED BLACK TIGER SHRIMP *Penaeus monodon*

15:10  **In-Kwon Jang**, Xian-Hong Meng, Hyung-Chul Seo, Yeong-Rok Cho, Bong-Rae Kim, Ayyaru Gopalakannan, Jong-Sheek Kim  
A TaqMan REAL-TIME PCR ASSAY FOR QUANTIFYING WHITE SPOT SYNDROM VIRUS (WSSV) INFECTIONS IN WILD BROODSTOCKS AND ARTIFICIALLY PRODUCED POSTLARVAE OF FLESHY SHRIMP *Fenneropenaeus chinensis*

15:30  **BREAK**

16:00  **Robin Wardle**, Victoria Lopez-Doriga, Mike J. Francis  
RECENT ADVANCES IN ASSESSING THE PERFORMANCE OF AQUAVAC VIBROMAX, A PENTAVALENT VIBRIO “VACCINE” FORMULATION ADMINISTERED TO FARMED, PENAED SHRIMP BY BIOENCAPSULATION

16:20  **Rex Ferdinand Traifalgar**, Haruka Kira, Asda Laining, Valeriano Corre, Augusto Serrano, Saichiro Yokoyama, Manabu ishikawa, Shunsuke Koshio  
FUCOIDAN AS IMMUNOSTIMULANT: EFFECTS ON GROWTH, SURVIVAL AND VIBRIOSIS RESISTANCE OF EARLY LARVAL STAGES OF *Penaeus monodon AND Marsupenaeus japonicus*

16:40  **Matthew R. P. Briggs**  
THE POTENTIAL OF ORGANIC ACIDS, PREBIOTICS AND PLANT-BASED IMMUNOSTIMULANTS AS FEED ADDITIVES TO ENHANCE CULTURE OF AQUATIC ANIMALS

17:00  **Brian Austin**, Jason Brunt  
PROBIOTICS AND DISEASE CONTROL IN AQUACULTURE

17:20  **Xiao-Hua Zhang**, Zizhong Qi  
CURRENT STATUS AND PROSPECT OF PROBIOTICS IN AQUACULTURE OF CHINA
15:30 BREAK

16:00 Khalid Salie, Monika Cermak, Dorette du Plessis
IMPROVED PRINCIPLES AND PRACTICES FOR SMALL-SCALE CAGE CULTURE ON IRRIGATION RESERVOIRS IN SOUTH AFRICA

16:20 Ernest W. Tollner, Herbert Ssegane, Tommy Jordan
INTEGRATION OF GIS, REMOTE SENSING AND USLE TO PREDICT SOIL EROSION DISTRIBUTION IN NZOIA BASIN (KENYA)

16:40 Rodrigue Yossa Nouaga, Victor Pouomogne, Randall Eddie Brummett, James Gockowski
ADDING VALUE TO WEEDS Tithonia diversifolia AND Chromolaena odorata THROUGH THEIR USE AS FISHPOND FERTILIZER

17:00 Rana Krishen
FISH FROM AFRICA FOR AFRICA: SHIFTING SUPPLIES FROM FISHING TO FISH FARMING

17:20 DISCUSSION: AFRICA CHAPTER OF WAS

THURSDAY, May 22

BUSAN METRO MAYOR’S SESSION
Thursday, May 22  9:00 - 17:40  Room 205
Chair: TBD

MARINE AND FRESHWATER ORNAMANTALS
Thursday, May 22  9:00 - 10:40  Room 107
Chairs: Cheng-Sheng Lee, Min-Min Jung

9:00 Junda Lin, Dong Zhang
REPRODUCTIVE BIOLOGY OF Lysmata SHRIMP

9:20 Junda Lin, Qiang Lin, Dong Zhang
BREEDING AND JUVENILE CULTURE OF THE LINED SEAHORSE Hippocampus erectus (PERRY, 1810)

9:40 Ahmed Mustafa, Shree Dhawale, Michael Cooper
TEACHING STRESS PHYSIOLOGY USING ZEBRA FISH

10:00 Konrad Dabrowski, Bong-Joo Lee, Marta Jaroszewska
MATERNAL SIGNATURES IN YOLK-BODY FATTY ACID COMPOSITION OF SOUTH AMERICAN AROWANA Osteoglossum bicirrhosum LARVAE
10:20 Mandana Mirhaj, M. Razzak, A. Nahar, K. Becker, S. Dewan
OPTIMISATION OF NUTRIENT FLOW AND ENVIRONMENTAL EFFECTS OF INTEGRATED
RICE AQUACULTURES WITH Oreochromis niloticus L., Cyprinus carpio L. AND
Macrobrachium rosenbergii (DE MAN)

10:40 Jeffrey S. Ren, Jeanie M. E. Stenton-Dozey
DEVELOPING AN INTEGRATED MULTI-TROPHIC AQUACULTURE PRACTICE

11:10 Shan-Nan Xu, Shan-Shan Wen, Jun Xiao, Kun Luo, Pei-Min He
BIOREMEDIATION OF CAGED FISH AQUACULTURE BY THE RED ALGA Gracilaria
verrucosa IN AN INTEGRATED MULTI-TROPHIC AQUACULTURE SYSTEM

11:30 Peimin He, Shannan Xu, Yinjiang Zhang, Kun Luo, Qiantao Tian, Lin Senjie, Charles Yarish
EVALUATION FOR BIOREMEDIATION CAPABILITY OF LARGE-SCALE SEAWEED CULTIVATION IN EUTROPHIC SEA AREA

11:50 Muki Shpigel, Moshe Sagi
CONSTRUCTED WETLANDS: BIOREMEDIATION THROUGH MULTI-TROPHIC AQUACULTURE

12:10 Adrian A. Bischoff, Patrick Fink, Uwe Waller
THE FATTY ACID COMPOSITION OF Nereis diversicolor (O.F. MUELLER, 1776) CULTURED IN AN INTEGRATED RECIRCULATED SYSTEM

12:30 John Woiwode, Kevin Fitzsimmons, James Walworth
THE USE OF INTENSIVELY CULTURED FISH AND HALOPHYTE PLANTS FOR THE BIOREMEDIATION OF COAL BED METHANE DISCHARGE WATER

CRAYFISH, CRABS AND OTHER SPECIES
Thursday, May 22  9:00 - 12:50  Room 201
Chairs: Tran Ngoc Hai, Jae-Sang Hong

9:00 Chenghui Wang, Chenhong Li, Chunhong Yuan, Sifa Li
POPULATION STRUCTURE AND DEMOGRAPHIC HISTORY OF THE MITTEN CRAB Eriocheir sensu stricto ALONG THE COAST OF MAINLAND CHINA INFERRED FROM MITOCHONDRIAL LOCI

9:20 Shuyong Zhang
ISOLATION AND MOLECULAR CHARACTERIZATION OF A NOVEL FLAVI-LIKE VIRUS FROM CHINESE MITTEN CRAB Eriocheir sinensis

9:40 Donald L. Mykles, Joseph A. Covi
MYOSTATIN SIGNALING AND REGULATION OF A MOLT-INDUCED ATROPHY IN CRUSTACEAN CLAW MUSCLE

10:00 Samet Can Söylemez, Keisuke Murakami, Carlos Augusto Strüssmann, Masashi Yokota, Seiichi Watanabe
AMINO ACID UPTAKE BY THE JAPANESE SPINY LOBSTER Panulirus japonicus PHYLLLOSOMA LARVAE
10:20  Reza Shah Pahlevi  
SPINY LOBSTER CO-MANAGEMENT IN LOMBOK ISLAND: THE WAY FORWARD?

10:40  BREAK

11:10  Antonio Garza de Yta, D. Allen Davis, David B. Rouse  
EVALUATION OF PRACTICAL DIETS CONTAINING VARIOUS PROTEIN SOURCES FOR JUVENILE AUSTRALIAN RED CLAW CRAYFISH Cherax quadricarinatus

EEL  
Thursday, May 22 9:00 - 12:50  Room 101  
Chairs: Tae Won Lee, Hideki Tanaka

9:00  Hideki Tanaka, Kazuharu Nomura, Shin-Kwon Kim, Tadahide Kurokawa  
ADVANCES IN FRY PRODUCTION TECHNIQUES OF JAPANESE EEL

9:20  Juan F. Asturiano, David S. Peñaranda, Luz Pérez, Víctor Gallego, Miguel Jover, Sylvie Balanche, Sylvie Dufour  
MOLECULAR AND PHYSIOLOGICAL STUDY OF ARTIFICIAL MATURATION IN THE EUROPEAN EEL MALES: FROM BRAIN TO TESTIS

9:40  Tomoki Abe, Shigeho Ijiri, Shinji Adachi, Kohei Yamauchi  
IN VITRO OOCYTE MATURATION AND OVULATION, FOLLOWED BY FERTILIZATION AND DEVELOPMENT IN JAPANESE EEL Anguilla japonica

10:00  Dong-Hwan Shin, Yosuke Sago, Keisuke Sago, Hirotsugu Ishigami, Tomoki Abe, Ryota Tosaka, Shigeho Ijiri, Shinji Adachi, Kohei Yamauchi  
FACTORS INFLUENCING EGG QUALITY IN JAPANESE EEL Anguilla japonica

10:20  Naomi Mikawa, Noriyuki Horie, Yoshiaki Yamada, Tomoko Utoh, Akihiro Okamura, Satoru Tanaka, Katsumi Tsukamoto  
MATURATION INDUCTION IN FEMALE JAPANESE EELS WITHOUT HORMONE TREATMENT AND IMPROVEMENT OF THE FERTILIZATION METHOD

10:40  BREAK

11:10  Akihiro Okamura, Yoshiaki Yamada, Noriyuki Horie, Tomoko Utoh, Naomi Mikawa, Satoru Tanaka, Katsumi Tsukamoto  
REARING EEL LEPTOCEPHALI AND THEIR ONTOGENIC CHANGES IN BEHAVIORAL CHARACTERISTICS

11:30  Takao Yoshimatsu, Kazuharu Nomura, Shin-Kwon Kim, Hideki Tanaka  
DEVELOPMENT OF ORGANS FOR INITIAL FEEDING IN PRELEPTOCEPHALUS LARVAE OF THE JAPANESE EEL Anguilla japonica

11:50  Shin-Kwon Kim, Hiroyuki Matsunari, Kazuharu Nomura, Hideki Tanaka, Masahito Yokoyama, Kenji Ishihara, Masaki Kaneniwa  
PRELIMINARY STUDY ON NUTRITIONAL REQUIREMENTS FOR GROWTH OF EEL LEPTOCEPHALI
12:10  Diep Mach T. N., Ragnar Nortvedt
FREE AMINO ACIDS DISTRIBUTION IN PLASMA AND LIVER OF JUVENILE COBIA
*Rachycentron canadum* FED INCREASED LEVELS OF CONCENTRATED FISH SILAGE

12:30  Luis A. Sampaio, Renato Santos, Michael Schwarz, Brendan Delbos
GROWTH AND SURVIVAL OF JUVENILE COBIA *Rachycentron canadum* EXPOSED TO
CHRONIC ACID STRESS

12:50  Bjørn Myrseth
MARINE FARMS CAGE CULTURE OF COBIA IN VIETNAM AND BELIZE

**MONODON CULTURE**
Thursday, May 22  13:50 - 17:40  Room 201
Chairs: Shi-Yen Shiau, In Kwon Jang

13:50  Shi-Yen Shiau
NUTRIENT REQUIREMENTS OF *Penaeus monodon*

14:20  Marc Le Groumellec, Vincent Rigolet, Olivier Rasoloniaina, Michel Rakotondrafara,
Manavendra Vemulapalli Rao, Marc Vandeputte
DEVELOPMENT, DOMESTICATION AND BREEDING OF A SPECIFIC PATHOGEN-FREE
BROODSTOCK OF SHRIMP *Penaeus monodon* FROM MADAGASCAR

14:50  T. W. Flegel
IMPORTANT DISEASES OF THE GIANT TIGER SHRIMP *P. monodon* IN ASIA

15:40  Hervé Lucien-Brun
REVIEW ON THE SEMI INTENSIVE GROW OUT AND POND MANAGEMENT OF *Penaeus monodon*

16:10  Jacques Gabaudan
GLOBAL PRODUCTION AND TRADE OF FARMED SHRIMP

16:40  Nguyen Van Hao
THE STATUS, CHALLENGE AND PERSPECTIVE OF BLACK TIGER SHRIMP *Penaeus monodon* FARMING IN MEKONG DELTA, VIETNAM

17:10  David Smith, Matt West, Sarah Groves
DEVELOPMENT OF PROTOCOLS FOR THE CULTURE OF BLACK TIGER SHRIMP *Penaeus monodon* IN “ZERO” WATER EXCHANGE PRODUCTION PONDS

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FRIDAY, May 23

TILAPIA
Friday, May 23     9:00 - 12:50     Room 104
Chairs: Kevin Fitzsimmons, Joon-Yeong Kwon

9:00  Ibrahim E. H. Belal
PRODUCTION AND EVALUATION OF FUNGI DEGRADED DATE PITS AS A DIETARY FEED INGREDIENTS FOR Oreochromis niloticus L.

9:20  Kevin Fitzsimmons, Pablo Gonzalez-Alanis
REVIEW – GLOBAL ADVANCES IN TILAPIA PRODUCTION AND MARKETING – 2007

9:40  Lukas Manomaitis, Michael C. Cremer
PRACTICAL CHALLENGES DEMONSTRATING THE AMERICAN SOYBEAN ASSOCIATION INTERNATIONAL MARKETING PROGRAM’S FEED-BASED POND AQUACULTURE TECHNOLOGIES ON A COMMERCIAL FARM IN VIETNAM

10:00  Daniel Meyer, Marco Guevara, Willie Chan, Claudio Castillo
USE OF FRESH BULL AND HOG TESTIS IN SEX REVERSAL OF NILE TILAPIA FRY

10:20  Anh Tuan Pham, Hung Le Quang
SELECTING BASE POPULATION FOR IMPROVEMENT OF TILAPIA GROWTH PERFORMANCE IN SALINE WATER

10:40  BREAK

11:10  Arthur C. Potts, Ronald P. Phelps
EFFECTIVENESS OF DIETHYLSTILBESTROL AND ETHYNYLESTRADIOL IN THE PRODUCTION OF FEMALE NILE TILAPIA Oreochromis niloticus AND THE EFFECT ON FISH MORPHOLOGY

11:30  M. M. Rahman, M. C. J. Verdegem, M. A. Wahab, M. Y. Hossain, Q. Jo, Y. G. Gong
ENVIRONMENTAL EFFECTS OF TILAPIA Oreochromis nilotica L. AND ARTIFICIAL FEEDING ON PHYTOPLANKTON AND FISH YIELD IN POLYCulture PONDS

11:50  Adel Khamis Soliman
WATER SOLUBLE VITAMIN REQUIREMENTS OF TILAPIA 3- NIACIN REQUIREMENT OF BLUE TILAPIA Oreochromis aureus
SHRIMP FEEDING AND NUTRITION
Friday, May 23     9:00 - 17:40     Room 201
Chairs: Gerard Cuzon, Jeong-Dae Kim

9:00 Rutchanee Chotikachinda, Wiboon Lapjatupon, Suthasinee Chaisalapasung, Dhanapong Sangsue
EFFECT OF MANNANOLIGOSACCHARIDES (MOS) ON GROWTH PERFORMANCE, SURVIVAL RATE AND SOME IMMUNE PARAMETERS IN PACIFIC WHITE SHRIMP Litopenaeus vannamei

9:20 Carmen Galindo, Gabriela Gaxiola, Gérard Cuzon, Nuno Simoes, Xavier Chappa-Carrara
PHYSIOLOGICAL AND BIOCHEMICAL CHANGES AT VARIOUS INTERMOLT STAGES IN JUVENILES Litopenaeus vannamei UNDER LABORATORY CONDITIONS

9:40 Fady Michael, Shunsuke Koshio, Manabu Ishikawa, Saichiro Yokoyama, Takuji Yokoyama
DIETARY CHOLINE IMPROVES THE TOLERANCE AGAINST EXPOSURE OF FRESH WATER AND FORMALIN STRESSES IN POSTLARVAL KURUMA SHRIMP

10:00 Mario Hernandez-Acosta, Pablo Gonzalez-Alanis, Rodrigo Otero, Abundio Gonzalez-Gonzalez, Gilberto Gutierrez-Salazar, Francisco Guzman-Saenz, Kevin Fitzsimmons
GROWTH AND DEVELOPMENT OF PACIFIC WHITE SHRIMP Litopenaeus vannamei JUVENILES, FED WITH DIFFERENT DIETS SUPPLEMENTED WITH Yucca schidigera AND Quillaja saponaria EXTRACTS

10:20 BREAK

DEVELOPMENT, TESTING AND DEMONSTRATION OF LOW FISH MEAL DIETS FOR THE PRODUCTION OF PACIFIC WHITE SHRIMP

11:50 Alfonso Galicia-González, Marissa Camacho-Gutiérrez, Roberto Civera-Cerecedo
PARTIAL REPLACEMENT OF FISHMEAL BY SAFFLOWER MEAL IN PRACTICAL DIETS FOR WHITE SHRIMP Litopenaeus vannamei

12:10 Jorge A. Suárez, Gabriela Gaxiola, Poso Rafael, Graciela Garcia, Guadalupe Alanis, Andres Suárez, Jaime Faillace, Gerard Cuzon
ENERGY PARTITIONING IN WHITE SHRIMP Litopenaeus vannamei FED WITH VEGETABLE PROTEIN SOURCES

12:30 Gabriela M. Gaxiola, L. Arena, C. Maldonado, C. Cuzon, S. Ortiz
NUTRIGENOMICS APPROACH OF Litopenaeus vannamei JUVENILES FED PLANT PROTEIN SOURCES

12:50 LUNCH

13:50 Nguyen Binh Thanh, Shunsuke Koshio, Manibu Ishikawa, Saichiro Yokoyama, Ryo Ogawa, Fary Rafaat Michael
DEVELOPMENT OF MATURATION FEEDS FOR KURUMA SHRIMP Marsupenaeus japonicus
14:10 Hui Gong, Addison L. Lawrence, Frank Alig, Donghuo Jiang
PERFORMANCE OF TWO DIFFERENT LINES OF Penaeus vannamei IN RESPONSE TO DIFFERENT DIETARY PROTEIN SOURCES AND LEVELS

14:30 Daniel Lemos, Raul Dias, Rodrigo Carvalho, Alberto Nunes, Albert Tacon
COMBINED EFFECTS OF TEMPERATURE, SALINITY, LEACHING TIME AND PELLET DIMENSIONS UPON WATER STABILITY OF FEEDS FOR Litopenaeus vannamei

14:50 Ian P. Forster, Warren G. Dominy, Leonard Obaldo, Gary F. Hartnell, Ernest Sanders
THE EFFECT OF FEEDING DIETS CONTAINING STEARIDONIC ACID-CONTAINING SOYBEAN OIL ON GROWTH PERFORMANCE IN PACIFIC WHITE SHRIMP Litopenaeus vannamei

15:30 BREAK

16:00 Daniel Lemos, Addison Lawrence, Anthony Siccardi
PREDICTION OF APPARENT PROTEIN DIGESTIBILITY IN INGREDIENTS FOR Litopenaeus vannamei DIETS USING pH-STAT DEGREE OF PROTEIN HYDROLYSIS (DH%) WITH HEPATOPANCREAS ENZYME EXTRACTS

16:20 Gérard Couzon
ASPECTS OF BIOENERGETICS IN SHRIMP

17:00 DISCUSSION

OFFSHORE AQUACULTURE
Friday, May 23 9:00 - 15:30 Room 103
Chairs: David Tze, Bela Buck, Jung-Uie Lee

Moderator: Bela Buck
9:00 James P. McVey
OFFSHORE AQUACULTURE: LESSONS LEARNED OVER THE PAST DECADE

9:20 Chun Woo Lee, Gun Ho Lee, Moo Youl Choe, Mi Kyung Lee, Dae Ho Song
NUMERICAL SIMULATION OF THE FISH CAGE SYSTEM INFLUENCED BY THE CURRENT AND WAVES

9:40 Seong-Jae Jeong, Jong-Keun Shin, Yong-Su Yang, Byung-Kyu Sohn, Jung-Uie Lee
DEVELOPMENT AND APPLICATION OF TENSION-LEG OFFSHORE FISH CAGE

10:00 Levy Loreto Mañalac, Michael C. Cremer, Lukas Manomaitis
CHALLENGES OF APPLYING THE AMERICAN SOYBEAN ASSOCIATION - INTERNATIONAL MARKETING PROGRAM’S LOW VOLUME, HIGH DENSITY CAGE AQUACULTURE TECHNOLOGIES WITH HIGH VALUE MARINE SPECIES ON COMMERCIAL FARMS IN THE PHILIPPINES

10:20 Clifford A. Goudey, Stephen H. Page
DEPTH CONTROL OF AN AQUAPOD™ ON A SINGLE-POINT MOORING

10:40 BREAK