



Aquaculture 2025

FRIDAY, March 7

PLENARY

Friday, March 7 8:00 AM - 10:00 AM Mardi Gras Ballroom
Chairs: Jay Parsons, Sandra Shumway

8:00 WELCOME AND AWARDS

8:30 John Hargreaves

DO WE NEED INNOVATION TO GROW AQUACULTURE?

ACCESS TO CREDIT – FSA FARM LOAN LENDING OPTIONS FOR AQUACULTURE PRODUCERS

Friday, March 7 11:00 AM - 12:30 PM Salon C
Chair: Steven Peterson

11:00 Kim Eilerman, Assistant to the Director of the FSA Loan Making Division
FLP Loan Types – Lender of First Opportunity and How to Apply

11:30 Tyler Carlson, Louisiana FSA District Director
Aquaculture – Specific Lending Policies and Issues – Processing Timelines and Expectations

12:00 Question and Answer Session

FDA FOOD TRACEABILITY RULE

Friday, March 7 11:00 AM - 12:30 PM Galerie 4

Chair: Paul Zajicek

FRIDAY

- 11:00 Rebecca Goldberg**, Senior Counsel, FDA Office of the Chief Counsel
Overview of the Food Traceability Rule
- 11:30 Chip Terry**, CEO, Blue Trace
FSMA 204: The Reality of Implementation
- 11:00 Matt Schoneman**, Vice President, VistaTrac
The Hidden Benefits of a Traceability System

STUDENT SPOTLIGHT TALKS

Friday, March 7 11:00 AM - 12:30 PM Galerie 2

Chairs: Nicole Roddy, Ana Viskovic, Bakare Mariam Oyinade

- 11:00 Travis Knorr**
CHANGING UP THE PROTOCOL: CAN ALTERNATIVE FIRST FEEDS IMPROVE THE CULTURE EFFICIENCY OF THE CHERRY BARB *Puntius titteya*
- 11:05 Alex Wright**
COMPOSITION OF CALIFORNIA'S AQUACULTURE INDUSTRY: DISEASE MANAGEMENT STRATEGIES AND IMPLICATIONS FOR ANIMAL WELFARE
- 11:10 Hilla Turbowicz**
EXPLORING PLASMID-BASED HORMONAL TREATMENT TO INDUCE PUBERTY IN LATE-MATURING FEMALE FISH
- 11:15 Leticia Cardoso Madureira Tavares**
EVALUATING THE USE OF AGRICULTURAL BY-PRODUCTS AS CARBON SOURCES FOR DENITRIFICATION IN RECIRCULATING AQUACULTURE SYSTEMS
- 11:20 Sunnia Chiang**
EFFECTS OF SOYBEAN MEAL, ENZYME TREATED SOYBEAN MEAL AND CORN- FERMENTED PROTEIN MEAL IN THE DIETS ON GROW-OUT STAGE OF CHANNEL CATFISH *Ictalurus punctatus* CULTURING IN POND RACEWAYS SYSTEM
- 11:25 Hectorina Rodulfo**
LIMITATIONS OF IMPLEMENTATION OF RNA INTERFERENCE (RNAi) IN SHRIMP AQUACULTURE

- 11:30 Nick Beswick-Seidl**
A HIGH-RESOLUTION LOOK AT MILK CONCH *Macrostrombus costatus*
FECUNDITY AND EGG MASS MORPHOMETRICS
- 11:35 Fahim Fatin**
TBD
- 11:40 Kyle Wood**
PATERNAL IMPACTS ON INDUSTRY-RELEVANT OFFSPRING
PERFORMANCE TRAITS USING BLUE CATFISH *Ictalurid furcatus*
CRYOPRESERVED SPERM
- 11:45 Max Zavell**
AN ESTIMATE OF CARBON STORAGE CAPABILITIES FROM WILD AND
CULTURED SHELLFISH IN THE NORTHWEST ATLANTIC AND THEIR
POTENTIAL INCLUSION IN A CARBON ECONOMY
- 11:50 Hannah Collins**
TISSUE-SPECIFIC RESIDENT AND TRANSIENT MICROBIAL COMMUNITIES
OF THE FRESHWATER UNIONID *Elliptio complanata*
- 11:55 Emma Coltman**
MODELING LARVAL PERFORMANCE OF THE EASTERN OYSTER
Crassostrea virginica UNDER FIELD CONDITIONS: *IN SITU* SIZE PROFILES
OF THE FOOD ASSEMBLAGE IN THE WESTERN MISSISSIPPI SOUND

CERTIFICATION - 20 YEARS LATER

Friday, March 7 11:00 AM - 3:00 PM Galerie 5

Chair: Michael Tlusty

- 11:00 Michael F. Tlusty**
A QUARTER CENTURY OF CERTIFICATION AND RANKINGS FOR
IMPROVEMENT: ARE WE WHERE WE WANTED TO BE AND WHERE SHOULD
WE GO IN THE NEXT 25 YEARS?
- 11:15 John A. Hargreaves**
DO CERTIFICATION PROGRAMS MAKE MEANINGFUL REDUCTIONS TO THE
ENVIRONMENTAL IMPACTS OF AQUACULTURE?
- 11:30 Frank Asche**
ECOLABELS FOR FARMED SEAFOOD
- 11:45 Jill H. Swasey**
FROM CERTIFICATION TO TRANSFORMATION: ASC'S ROLE IN EVOLVING
AQUACULTURE

12:00 Megan Rector, Ramon Filgueira
HOW DOES AQUACULTURE ECO-CERTIFICATION SUPPORT SUSTAINABILITY ACROSS ECOSYSTEM SERVICES AND SCALES? AN ANALYSIS BASED ON THE ECOSYSTEM APPROACH TO AQUACULTURE

12:15 Katy Hladki
THE LIMITS OF CERTIFICATIONS: WHY COMPLEX OCEAN CHALLENGES NEED HOLISTIC ECOSYSTEM CENTRIC SOLUTIONS

12:30 LUNCH

1:30 Rolando Ibarra, Daniela Farias, Wendy Norden
CSARP: FIVE YEARS OF COLLABORATIVE EFFORTS TO REDUCE ANTIBIOTIC USE IN CHILEAN SALMON AQUACULTURE

1:45 Kevin Fitzsimmons, Michael Tlusty, Fredrick Barrows
GAMIFYING IMPROVEMENT IN AQUACULTURE

2:00 Rebecca S. Williams
IMPROVING SOCIAL DIMENSIONS IN THE SEAFOOD SECTOR THROUGH THE PROMOTION OF GENDER EQUALITY

2:15 Jennifer Kemmerly
LESSONS FROM 25 YEARS OF SEAFOOD RATINGS: LIMITS AND OPPORTUNITIES

GENERAL AQUACULTURE CONTRIBUTED 1

Friday, March 7 11:00 AM - 12:30 PM Balcony M

Chair: Shane Ramee

11:00 Toyosi Igejongbo, Titilayo Akintola, Kehinde Adejugbagbe
CHOLESTEROL CONTENT OF AQUATIC MOLLUSKS: PERIWINKLE AND OCTOPUS IN OKESIRI COASTAL WATER BODY, ONDO STATE, NIGERIA

11:15 Vasu Jayaprakas, Satish Sahayak
MASS CULTURE OF THE ALGA *Dunaliella salina* IN CLOSED PHOTOBIOREACTORS FOR THE PRODUCTION OF BETA CAROTENE AND BIODIESEL

11:30 Oluwasanmi O. Aina, Isaac A. Arowolo, Victoria Akinyele
COMPARATIVE HISTOMORPHOLOGICAL ANALYSIS OF SKIN ADAPTATIONS IN *Erpetoichthys calabaricus* AND *Clarias gariepinus*

- 11:45 Jasmine Perez**, Juan F. Paredes, Marty Riche, Sahar Mejri, Paul S. Willis, David Bradshaw, Radu Popa
EFFECTS OF BLACK SOLDIER FLY PROTEIN ON HISTOMORPHOLOGY OF INTESTINE AND LIVER IN JUVENILE RED DRUM *Sciaenops ocellatus*
- 12:00 Valentina Carbone**, Jessica Teske, Thomas Raynaud
EFFECT OF THE USE OF NATURA PRO IN DIFFERENT FISH SPECIES: MOVING FROM MEDITERRANEAN AQUACULTURE TO THE REST OF THE WORLD
- 12:15 Ana Claudia Sánchez-Ortiz**, Rafael Franco-Sapién, Ma. del Carmen Flores-Miranda, Ángel Isidro Campa-Córdova
SUSTAINABLE AQUACULTURE: STRATEGIES FOR COMPREHENSIVE IMPROVEMENT

FEED ADDITIVES

Friday, March 7 11:00 AM - 5:30 PM Salon D
Chairs: Fernando Y. Yamamoto, Blaine Suehs

- 11:00 Crystal Lodi Conde**, Vitor F. Silva, Ana Beatriz S. Farias, Thiago M. Santana, Sara U. Cardoso, Andre D. Nobre, Larissa S. da Cunha, Jing Huang, Penelope M. Goodman, J. Grant Reifers, Caitlin E. Older, Matt J. Griffin, Peter J. Allen, Fernando Y. Yamamoto
PRODUCTION PERFORMANCE AND PHYSIOLOGICAL RESPONSES OF CHANNEL CATFISH *Ictalurus punctatus* FED DIETS SUPPLEMENTED WITH SOY LECITHIN
- 11:15 Dong Fang Deng**, William Sullivan, Wendy Sealey, Matthew Dignan, Debby Samac
PHYTASE SUPPLEMENTATION ENHANCES THE POTENTIAL OF ALFALFA NUTRIENT CONCENTRATE AS A FEED INGREDIENT FOR JUVENILE YELLOW PERCH *Perca flavescens*
- 11:30 Ajit Dake**, Iris Meiri-Ashkenazi, Khalil Kashkush, Lior Guttman
A NOVEL MARINE BACTERIUM AS A PROBIOTIC SUPPLEMENT TO IMPROVE HEALTH, FEED DIGESTION, AND RESILIENCE OF THE GILTHEAD SEABREAM *Sparus aurata*
- 11:45 Jing Huang**, Heather Jordan, Caitlin Older, Matt Griffin, Peter Allen, David Wise, Ana Beatriz Farias, Penelope Goodman, Grant Reifers, Fernando Yamamoto
THE SUPPLEMENTATION OF AUTOCHTHONOUS PROBIOTIC, *Lactococcus lactis* MA5, IMPROVES ACUTE HYPOXIA STRESS RESISTANCE FOR HYBRID CATFISH (*Ictalurus punctatus* × *I. furcatus*)

- 12:00 Cindy N.S. Leal**, Vinicius A. Prestes, Ed C.Z. de Lima, Angela R. Poveda-Parra, Isabelli S. Kono, João F.A. Koch, Giovana W. Di Santis, Lucas S. Simplicio, Victor C.F. Pandolfi, Nelson M. Lopera-Barrero
DIETARY SUPPLEMENTATION WITH β -GLUCAN, MANNAN-OLIGOSACCHARIDES, AND NUCLEOTIDES: EFFECTS ON INTESTINAL HISTOLOGY OF NILE TILAPIA *Oreochromis niloticus*
- 12:15 Jason Pough**, David Kuhn, Ann Stevens
NOVEL APPLICATION OF BREWER'S SPENT BYPRODUCT SERVE AS AN EFFECTIVE FEED ADDITIVE TO RAINBOW TROUT *Oncorhynchus mykiss*
- 12:30 LUNCH**
- 1:30 Vitor Silva**, Crystal Conde, Ana Beatriz Farias, Penelope Goodman, Thiago Santana, José Luiz Mouriño, Jonathan Reifers, Caitlin Older, Matt Griffin, Delbert Gatlin III, Fernando Yugo Yamamoto
DIETARY SUPPLEMENTATION OF IRON NANOPARTICLES AND CALCIUM PROPIONATE FOR CHANNEL CATFISH *Ictalurus punctatus*
- 1:45 David Wise**, Lester Khoo, Matt Griffin, Fernando Yamamoto, Bradley Richardson, Caitlin Older, Alvin Camus
FEED-RELATED AND IRON-RESPONSIVE ANEMIA IN CATFISH
- 2:00 Leonardo A. Baumgartner**, Sara U. Cardoso, Jânderson R. Garcez, Nicolas C.R. Cezar, Milene E.H. de Souza, Weverson A. da Silva, Valfredo F. da Silva, Amanda M. Malacarne, Fernando Y. Yamamoto, Robie A. Bombardelli
IMPACT OF DHA AND ORGANIC AND INORGANIC MINERALS IN DIETS FOR NILE TILAPIA BROODSTOCK AND THEIR EFFECTS ON LARVAL GROWTH
- 2:15 Olugbenga Orisasona**, Abimbola O. Adekanmbi, Bisi P. Akinrinade, Oyebola O. Taiwo
AQUEOUS ALMON *Terminalia catappa* LEAF EXTRACT ENHANCED GROWTH PERFORMANCE, IMMUNOCOMPETENCE, AND RESISTANCE OF *Heterobranchus longifiliis* TO *Pseudomonas aeruginosa*
- 2:30 Samah Algharib**, Ali Dawood
IMMUNE-ANTIOXIDANT TRAIT, *Aeromonas veronii* RESISTANCE, GROWTH, INTESTINAL ARCHITECTURE, AND SPLENIC CYTOKINES EXPRESSION OF *Cyprinus carpio* FED *Prunus armeniaca* KERNEL-ENRICHED DIETS
- 2:45 Bonnie Mulligan**, Lillian Morrison, Conrad Anderson, Audrey Jones, Jessica Koppien-Fox, David Brock, Jesse Trushenski
EVALUATION OF ONE CURRENT™ AS A DIETARY STRATEGY FOR INCREASING RESILIENCE IN RAINBOW TROUT

- 3:00 Ali Dawood**, Hossam Abdelhamed
EVALUATING THE ANTIBACTERIAL ACTIVITIES OF *Allium sativum* AGAINST MAJOR CATFISH PATHOGENS
- 3:15 Cristian Camilo Suarez Barazeta**, A. Beatriz Farias, Grant Reifers, Penelope M. Goodman, Matt J. Griffin, Heather R. Jordan, Fernando Yamamoto
EVALUATING CARVACROL AS A PLANT-DERIVED DIETARY SUPPLEMENT FOR CHANNEL CATFISH *Ictalurus punctatus* FINGERLINGS
- 3:30 Fernando Yamamoto**, C. Camilo Suarez-Barazeta, Ana Beatriz de Sena Farias, Jing Huang, Kurt Servin, Caitlin Older, Heather Jordan, Esteban Soto, Matt Griffin
EVALUATING AQUANAT SYNERGY™ *IN VITRO* AND WHEN SUPPLEMENTED IN CHANNEL CATFISH *Ictalurus punctatus* DIETS
- 3:45 Mosope Abanikannda**, Mark Shiflett, Ana Rita Colaco Morais, Jeongwhui Hong, Wendy Sealey, Jacob Bledsoe
EVALUATING INCLUSION OF COMMERCIAL PISTACHIO BY-PRODUCT AS A FUNCTIONAL INGREDIENT IN RAINBOW TROUT *Oncorhynchus mykiss* DIETS
- 4:00 Juan Fernando Paredes**, Michael Habte-Tsion, Marty Riche, Sahar Mejri, David J. Bradshaw, Li Sun Chin, Carlie Perricone, Paul S. Wills
EFFECTS OF DIETARY CARBOHYDRATE SOURCES IN FLORIDA POMPANO *Trachinotus carolinus* GROWTH AND GLUCOSE METABOLISM GENE EXPRESSION
- 4:15 Trenton Corby**, Trinh Ngo, Marty Riche, D. Allen Davis
DIETARY METHIONINE REQUIREMENTS FOR JUVENILE FLORIDA POMPANO *Trachinotus carolinus*
- 4:30 Qingyan Tao**, Yuanping Wang, Juan Wang, Anran Jiao, Lingfu Long
SELENOMETHIONINE ADDITION IMPROVE LARGEMOUTH BASS *Micropterus salmoides* GROWTH PERFORMANCE AND SURVIVAL UNDER 7 STRESS CONDITIONS
- 4:45 Blaine Suehs**, Pedro L.P.F. Carvalho, Gabriel Bake, Delbert M. Gatlin III
EVALUATING THE EFFECTS OF GLUTAMINE SUPPLEMENTATION IN HYBRID STRIPED BASS *Morone chrysops* × *M. saxatilis* FED A SOYBEAN-MEAL-BASED DIET
- 5:00 Amrit Bart**, Easton Kuboushek, Erica Curles
SOY AQUACULTURE ALLIANCE (SAA): ADVANCING SUSTAINABLE AQUACULTURE RESEARCH AND DEVELOPMENT GOALS

- 5:15 Scott Snyder**, Christa Rice, Leandro Castro, Peter Van Wyk, Tim Markey
 COMMERCIALIZATION OF FUNCTIONAL FEEDS FOR RAINBOW TROUT
Oncorhynchus mykiss PRODUCTION IN THE USA: A REPORT ON THE
 EFFICACY OF MANAGING ON-FARM MORTALITY DUE TO ELEVATED WATER
 TEMPERATURES AND PREVALENCE OF OPPORTUNISTIC PATHOGENS

PHYSIOLOGICAL INSIGHTS TOWARDS IMPROVING FISH CULTURE - VII

Friday, March 7 11:00 AM - 5:30 PM Galerie 6

Chairs: Beth Cleveland, Adam Luckenbach, Peter Allen, Tim Bruce

- 11:15 Peggy Biga**, Khalid Frejj, Beth Cleveland
 MATERNAL CHOLINE INTAKE IMPACTS OFFSPRING EPIGENETIC
 LANDSCAPE IN RAINBOW TROUT *Oncorhynchus mykiss*
- 11:30 Marina Subramaniam**, Kenneth E. Overturf, Sara Schwarz, Brian C. Small
 COMPARATIVE EFFECTS ON INTESTINAL INTEGRITY OF A PLANTMEAL-
 VS. FISHMEAL-BASED DIET BETWEEN TWO STRAINS OF RAINBOW TROUT
- 11:45 Clayton Mabey**, Wendy Sealey, Jackson Gross, William Fairgrieve,
 Madison Powell
 DETERMINING THE OPTIMAL MACRONUTRIENT REQUIREMENTS FOR
 JUVENILE WHITE STURGEON *Acipenser transmontanus* GROWOUT DIETS
 USING A MIXTURE DESIGN
- 12:00 Nelson Parajuli**, Josh Sakmar, Allen Nicholls, Kaylan Martin, Samitha Liyanage,
 Kyle Wood, Anneleen Swanepoel, Anita Kelly, Allen Davis, Luke Roy,
 Timothy Bruce, Ian Butts
 PREDATOR AND PREY DENSITY IMPACTS LARVAL PERFORMANCE OF
 LARGEMOUTH BASS IN AN INDOOR RECIRCULATING AQUACULTURE
 SYSTEM
- 12:30 LUNCH**
- 1:30 Michael Phelps**, Max Butensky, Evan Barnes, Robert Holmes, Isaac Coy,
 Chaya Gaberria
 CHARACTERIZATION OF THE MOLECULAR DRIVERS OF PHYSIOLOGICAL
 TRANSITIONS IN PACIFIC SALMON
- 1:45 Halli Bair**, Robert Morefield, Heather Hamlin, Robert Morefield
 A GLIMPSE: WHAT CAN EARLY METABOLISM AMONGST *S. salar* FAMILIES
 TELL US?

- 2:00 Robert Morefield**, Halli Bair, Heather Hamlin
DEVELOPMENTAL BIOMARKERS IN ATLANTIC SALMON *Salmo salar* FOR PREDICTION OF FAVORABLE TRAITS IN DOMESTICATED LINEAGES: GROWTH, SURVIVAL, AND TEMPERATURE TOLERANCE
- 2:15 Brian Ott**, Dakota Chisolm, Tim Pfeiffer
POSTPRANDIAL AMMONIA EXCRETION, OXYGEN CONSUMPTION, AND CARBON DIOXIDE PRODUCTION OF CHANNEL AND BLUE CATFISH
- 2:30 Julia Tvedt**, Boce Zhang, Razieh Farzad
EVALUATION OF ORANGE-SPOTTED GROUPEP *Epinephelus coloides* MYOBLAST ADHESION ON SCAFFOLD MATERIALS USING QCM-D
- 2:45 Beth Cleveland**, Lisa Radler, Ayaka Izutsu, Yuika Ushizawa, Munetaka Shimizu
PROFILING GROWTH PERFORMANCE, INSULIN-LIKE GROWTH FACTORS (IGF) AND IGF-BINDING PROTEINS (IGFBP) IN RAINBOW TROUT LACKING IGFBP-2B
- 3:00 Owen P. Ledford**, Chandler M. Schneider, Benjamin R. LaFrentz, Julio C. García, Ian A.E. Butts, Timothy J. Bruce
JUVENILE LARGEMOUTH BASS *Micropterus salmoides* DISEASE SUSCEPTIBILITY, GUT MICROBIOTA, AND IMMUNE RESPONSE TO *Aeromonas* spp. INFECTION
- 3:15 Elena Deng**, Shah Khaled, Ahmed Mustafa
EVALUATING THE IMMUNOMODULATORY EFFECTS OF PHYTOCHEMICALS IN FARMED TILAPIA AND BASS IN FARMED CONDITION
- 3:30 Vandana Dharan**, Bradley Richardson, Hammed Olanrewaju, Larry Hanson, Peter Allen
HEMATOLOGICAL AND BIOCHEMICAL ANALYSIS OF ICTALURID HERPESVIRUS I INFECTION IN CHANNEL CATFISH *Ictalurus punctatus*
- 3:45 Jesse Trushenski**
COLLABORATIVE SCIENCE IN THE COMMERCIAL AQUACULTURE SPACE: LEVERAGING RIVERENCE'S SENTINEL PROGRAM FOR DATA GENERATION AND DISCOVERY
- 4:00 Brent Vuglar**, Piper Evans, Yoonhang Lee, Timothy Bruce, Vikas Kumar
COMPLEMENTARY EFFECTS OF INSECT MEAL AND SOYBEAN MEAL ON GROWTH PERFORMANCE, GUT HEALTH, AND REGULATION OF INFLAMMATORY, IONREGULATORY HOMEOSTASIS, AND OXIDATIVE STRESS ASSOCIATED GENES IN ATLANTIC SALMON *Salmo salar*

FINFISH GENETICS AND BIOLOGY

Friday, March 7 11:00 AM - 2:15 PM Studio 9

Chair: Madison (Matt) Powell

TUESDAY

- 11:00 Manuel Soto-Davila**, Abigail G. Dixon, Megan Dyck, Valentina Wong-Benito, Maricruz Guevara, Tania Rodríguez-Ramos, Paola Avaria-Vasquez, Rochelle Supinski, Brian Dixon
CHARACTERIZING THE EFFECTS OF TRIPLOIDIZATION ON GUT BARRIER INTEGRITY AND IMMUNE RESPONSE IN CHINOOK SALMON: A HISTOLOGICAL AND MOLECULAR ANALYSIS
- 11:15 Darshika Hettiarachchi**, Kate Pottle, Mei Shang, Baofeng Su, Misha Soman, Hamza Dilawar, Nadeen Abdo, Dhanuka Bambaranda, Ahmed Shaaban, Ian A.E. Butts, Rex Dunham
PRODUCTION OF XENOGENIC CATFISH BY TRANSPLANTING CULTURED BLUE CATFISH *Ictalurus furcatus* STEM CELLS INTO CHANNEL CATFISH *Ictalurus punctatus* TRIPLOID FRY
- 11:30 Brittany Ratliff**, Terrence Tiersch, Yue Liu
EXPANDING COMMUNITY CAPABILITIES FOR DEVELOPMENT OF GERMLASM REPOSITORIES FOR AQUATIC SPECIES THROUGH OPEN HARDWARE
- 11:45 Caleb Taylor**, Brittany Ratliff, Yue Liu, Terrence Tiersch
AN AUTOMATED OPEN-SOURCE DEVICE FOR CRYOPRESERVATION TO ESTABLISH AQUATIC GERMLASM REPOSITORIES
- 12:00 Nicholas Coxe**, Yue Liu, Terrence R. Tiersch
OPEN CAPABILITY CRYOPRESERVATION KITS FOR COMMUNITY-DRIVEN REPOSITORY DEVELOPMENT IN AQUATIC SPECIES: AN EXAMPLE FROM THE AXOLOTL *Ambystoma mexicanum*
- 12:15 Jason Broach**, Justin Yost, Haley Lasco, Collin Ward, Thomas McBride, Evan Bowman, Lora Payne, Erin Levesque, Aaron Watson
EVALUATION OF HORMONE EFFICACY FOR INDUCED SPAWNING OF SOUTHERN FLOUNDER *Paralichthys lethostigma*
- 12:30 LUNCH**
- 1:30 Laura Sisk-Hackworth**, Lee A. Fuiman, Cynthia K. Faulk, Ashley N. Fincannon, Christopher E. Mace
RESEARCH TO REDUCE MALPIGMENTATION IN PRODUCTION OF SOUTHERN FLOUNDER *Paralichthys lethostigma* FOR STOCK ENHANCEMENT IN TEXAS

- 1:45 Laura Sisk-Hackworth**, Cynthia K. Faulk, Savannah L. Cornett, Rebecca L. Young, Hans A. Hofmann, Lee A. Fuiman
TRANSCRIPTOMICS UNCOVERS EARLY MOLECULAR SIGNATURES OF MALPIGMENTATION IN SOUTHERN FLOUNDER *Paralichthys lethostigma* LARVAE
- 2:00 Tristan Shonat**, Matt Resley, Nicole Rhody
PRELIMINARY WORK TO CAPTURE AND TRANSPORT, AND TO UTILIZE CONTROLLED RECIRCULATING MATURATION SYSTEMS TO MAINTAIN AND SPAWN STRIPED MULLET *Mugil cephalus*
- 2:15 Graham Mair**, Daniela Lucente
AQUAGRIS: A NEW GLOBAL INFORMATION SYSTEM FOR CHARACTERISING AND RECORDING INFORMATION ON GENETIC RESOURCES FOR AQUACULTURE

GENERAL AQUACULTURE CONTRIBUTED - 4

Friday, March 7 11:00 AM - 12:30 PM Balcony J

Chair: TBA

- 11:00 Lior Guttman**, Dzung Nguyen, Ofer Ovadia, Nicole Rhody, Kevan Main
SPECIES SORTING BY SEAWEED ULVA AND MARINE PERIPHYTON GOVERNS MICROBIAL ASSEMBLY ALONG MARICULTURE EFFLUENT TREATMENT
- 11:15 Lior Guttman**, Matan Masasa, Muki Shpigel, Ariel Kushmaro
MICROBIAL CONTRIBUTION TO FOOD DIGESTION IN THE GUT OF ALGIVOROUS SEA URCHIN: A NOVEL RESOURCE OF ALGAL POLYSACCHARIDES DEPOLYMERIZING BACTERIA

ONE HEALTH EPIGENOMES AND MICROBIOMES

Friday, March 7 11:00 AM - 5:30 PM Studio 7

Chairs: Acacia Alcivar-Warren, Irina Yushenova

- 11:00 Acacia Alcivar-Warren**, Irina Yushenova
ONE HEALTH EPIGENOMES AND MICROBIOMES: FROM SOIL TO PEOPLE – RECOGNITION TO STUDENTS AND “OUTSTANDING ONE HEALTH RESEARCHERS IN AQUACULTURE AND FISHERIES” AWARDEES
- 11:15 Laura N. Vandenberg**
FROM BISPHENOL A (BPA) TO PHTHALATES TO PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS): HOW ENVIRONMENTAL CHEMICALS ARE HARMING FISH, SHELLFISH AND HUMAN HEALTH AND WHAT WE CAN DO ABOUT IT

- 11:45 Jeremiah Minich**, Todd Michael
CULTURE-INDEPENDENT META-PANGENOMICS ENABLED BY LONG READ METAGENOMICS
- 12:15 Fernando Rodriguez**
ADVANCES IN TRANSPOSABLE ELEMENT ANNOTATION FOR GENOME ANALYSIS IN AQUACULTURE SPECIES OF INTEREST
- 12:30 LUNCH**
- 1:30 Salvador Rico**, Christopher Puttock
COMMUNITY ACTION FOR FRESH WATER (CAFW): A ROTARY INTERNATIONAL (RI) AND UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP) INITIATIVE TO RESTORE, PROTECT, AND SUSTAIN FRESHWATER ECOSYSTEMS
- 2:00 Lea Jimenez**, John P. Seniel, Jefferson A. Centro, Ulrich Kronberg
REGENERATING COAST OF PUJADA BAY: A COMMUNITY-BASED MANGROVE REHABILITATION AND ENHANCEMENT IN THE CITY OF MATI, DAVAO ORIENTAL, PHILIPPINES
- 2:15 Danielle A. Kreeger**
FRESHWATER MUSSELS: GLOBAL BELLWETHERS AND ENHANCERS OF AQUATIC ECOSYSTEM HEALTH
- 2:30 Francesca Molee**, Maleah Sena, Fernando Rodriguez, Elena Lopez Peredo
CHARACTERIZATION OF THE (GREEN) MICROBIAL AND PHYSIOLOGICAL DIVERSITY ON RETENTION PONDS IN THE LAKE ONTARIO WATERSHED
- 2:45 Steve Morton**, Laura Vanopdenbosch, Sandra Shumway
PARTICIPATORY SCIENCE APPROACH TO MITIGATE THE EFFECTS OF HARMFUL ALGAL BLOOMS IN COSTA RICA
- 3:00 Irina Yushenova**, Fernando Rodriguez, Irina Arkhipova
REVERSE TRANSCRIPTASE RELATED PROTEINS ARE RECRUITED BY MULTIPLE AQUATIC ORGANISMS TO SERVE IN ENVIRONMENTAL STRESS RESPONSE PATHWAYS
- 3:15 Angela TenBroeck**
ENHANCING MARINE ECOSYSTEMS AND PROMOTING SUSTAINABLE AQUACULTURE
- 3:30 Sydney Roy**, Martina Namugabo, Andrew Kabire
A REVIEW OF BIODIVERSITY AND CHEMICAL CONTAMINANTS IN FISH FROM LAKE VICTORIA, UGANDA

- 3:45 Caroline DeWitt**
THE ENVIRONMENTAL SUSTAINABILITY ROTARY ACTION GROUP (ESRAG):
HELPING TO IMPLEMENT SUSTAINABLE PRACTICES ON BIODIVERSITY,
CIRCULAR ECONOMY, FOOD SYSTEMS, SUSTAINABILITY, CLIMATE AND
POLLUTION
- 4:00 Caroline DeWitt, Salvador Rico**
HOW TO WRITE EFFECTIVE GLOBAL GRANTS TO APPLY FOR FUNDING
FOR YOUR PROJECT BY ROTARY INTERNATIONAL

ANTHROPOGENIC CONTAMINANTS AND THEIR IMPACTS ON FISH AND SHELLFISH BIOLOGY AND ECOLOGY

Friday, March 7 11:00 AM - 5:30 PM Salon A

Chairs: Evan Ward, Kayla Mladinich

- 11:00 Awwal Bamanga, Akintunde Adegbite, Samuel Popoola**
IMPACT OF MICRO-PLASTICS ON THE LAGOS COAST: SOURCES,
PATHWAYS, AND MANAGEMENT
- 11:15 Katherine R. Johnson, Juanita Urban-Rich**
EXPLORING THE POTENTIAL IMPACTS OF COMPOSITE ROPE AND
POLYETHYLENE NETRON ON BAY SCALLOP *Argopecten irradians* SURVIVAL
AND GROWTH
- 11:30 Eunice Idowu, Rachel Idowu, Dorcas Akinyosoye, Joseph Utugboyega**
BIOACCUMULATION OF HEAVY METALS AND MICROPLASTICS IN
SELECTED FISH SPECIES, WATER AND SEDIMENTS FROM RIVER ELEMI,
SOUTHWEST NIGERIA
- 11:45 Laura Sanjinez, Rosita Chang, Jorge Echevarría, Liliana Solis, Kevin Noel**
MICROPLASTICS AS VECTORS OF BACTERIAL PATHOGENS ALONG THE
TUMBES COASTLINE, PERU: PRELIMINARY ASSESSMENT AND RISKS TO
MARINE ECOSYSTEMS
- 12:00 J. Evan Ward, Kayla Mladinich, Bridget A. Holohan, Sandra E. Shumway**
INVESTIGATING SUSPENSION-FEEDING INVERTEBRATES AS
BIOINDICATORS OF MICROPLASTICS
- 12:15 Chinnaiah Amutha**
IDENTIFICATION OF MOLECULAR BIOMARKERS AGAINST POLYCYCLIC
AROMATIC HYDROCARBON IN MARINE GREEN MUSSEL *Perna viridis*
- 12:30 LUNCH**

- 1:30 **Michella Salvitti**, Joe Pitula, Jacob Cram, John Bowden
PFAS IMPACTS ON ATLANTIC BLUE CRAB: CORRELATION BETWEEN *Hematodinium pereziand* AND PFAS LEVELS IN THE HEMOLYMPH
- 1:45 **Maria D'Amico**, Kevin Neves
EFFECTS OF ANTHROPOGENIC NITROGEN EXPOSURE ON REPRODUCTION AND OFFSPRING QUALITY OF THE CRITICALLY ENDANGERED "*Xenotoca*" *doadrioi*
- 2:00 **Andrew Pothoven**, Jun Li, Derek Wright, Mark Zierden
DETERMINING THE EFFECTS OF SEDIMENTS FROM STAMP SANDS ALONG LAKE SUPERIOR ON ZEBRAFISH *Danio rerio*
- 2:15 **Benjamin M. Drakeford**
BIODEGRADABLE PLASTICS FOR MARINE APPLICATIONS – THE CASE FOR INDONESIA
- 2:30 **Hiba Jasmin Visaliyil**, Colleen Guinle, Clément Baratange, Yann Aminot, Victoria Delannoy, Samuel Bertrand, Abderrahmane Kamari, Yannick Francois, Laurence Poirier, Paul Déléris, Aurore Zalouk-Vergnoux
ASSESSMENT OF THE EFFECTS OF PFAS ON BLUE MUSSELS USING GENE EXPRESSION AND BIOCHEMICAL APPROACHES – IMPLICATIONS FOR COASTAL MONITORING AND ENVIRONMENTAL RISK EVALUATION
- 2:45 **Chinnaiah Amutha**, Indiran Pushbalatha, Ardhra Gopan, K. Dharshana, Joseph Antony Reneese, M. Ragavi, Km Sharmila
EVALUATION OF THE EFFECT OF GLYPHOSATE ON *Litopenaeus vannamei*: ENZYME ACTIVITY PROFILES AND OXIDATIVE STRESS AS AN INDICATOR
- 3:00 **Chinnaiah Amutha**
UTILIZATION OF MOLECULAR BIOMARKER IN THE DETECTION OF XENOBIOTICS ON WHITE LEG SHRIMP *Litopenaeus vannamei* FROM DIFFERENT MANGROVES SITES OF SOUTHERN EAST COST INDIA
- 3:15 **Chinnaiah Amutha**
EXPERIMENTAL EVIDENCE OF GLYPHOSATE HERBICIDE IN *Oreochromis mossambicus* AND ITS BIOREMEDIATION THROUGH MICROBIAL ENZYME-NANOPARTICLE CONJUGATION

DOWN ON THE FARM

Friday, March 7 11:00 AM - 3:45 PM Salon E

Chairs: Leslie Sturmer, Bill Walton Clark

- 11:00 Russell Grice**
OYSTER FARMING – IS IT FOR YOU?
- 11:15 Emily Johns**
EAST VS. WEST COAST: A GROWER'S PERSPECTIVE OF SIMILARITIES, DIFFERENCES AND TRENDS OF OYSTER AQUACULTURE IN THE USA
- 11:30 Wood Oglesby**, Earl Melancon, Elizabeth Robinson, Annalisa Kelly
DOWN ON THE FARM: EXPLORING THE EVOLUTION AND POTENTIAL OF ALTERNATIVE OYSTER CULTURE IN LOUISIANA
- 11:45 Matt Parker**, Don Webster, Jeremy Testa, Casey Hodgkins, Suzanne Bricker, Elise Irwin
A TALE OF TWO LEASES: COMPARING POTENTIAL SHELLFISH LEASES FOR FINAL SITE SELECTION
- 12:00 Rachel Hutchinson**, Joshua Reitsma
REAL-TIME WATER QUALITY MONITORING IN SHELLFISH GROWING AREAS, MAKING IT ACCESSIBLE
- 12:15 William Walton**, David Arancibia, Marcia Berman, Jordan Lynch
EFFECT OF BOTTOM AND FLOATING CONTAINER PRODUCTION ON OYSTER PERFORMANCE: GROWTH, SURVIVAL, SHAPE, SHELF LIFE, AND CONSUMER PERCEPTIONS
- 12:30 LUNCH**
- 1:30 Matthew LaGanke**, William Walton
TRADEOFFS OF SPLITTING OYSTERS AT THREE TRIGGER DENSITIES IN OFF-BOTTOM OYSTER AQUACULTURE
- 1:45 Leslie Sturmer**, Stephen Watts
REEVALUATING THE CO-CULTURE OF EASTERN OYSTERS WITH SEA URCHINS *Lytechinus variegatus* ON FLORIDA'S GULF OF MEXICO COAST
- 2:00 Austin Maguire**, Max Rintoul, Riley Zajonc, Justin Mojonnier, Gary Fleener
APPLYING MARK-RECAPTURE TECHNIQUES IN OYSTER AQUACULTURE TO IMPROVE MANAGEMENT DECISIONS
- 2:15 Keith Chenier**, Alyssa Rodolfich, Ryan Bradley, Eric Sparks
UTILIZING UNCREWED AERIAL SYSTEMS TO FACILITATE THE RECOVERY OF OFF-BOTTOM OYSTER AQUACULTURE GEAR IN COASTAL MISSISSIPPI, USA

- 2:30 Renee Mercado-Allen**, Ryan Morse, Christopher Schillaci, Peter Auster, Adrianna Bourget, Paul Clark, Mark Dixon, Kenneth Olivera, Gillian Phillips, Dylan Redman, Barry Smith, Julie Rose
BEHAVIORAL OBSERVATIONS, RELATIVE CONDITION, AND ESTIMATED PRODUCTION OF BLACK SEA BASS *Centropristis striata* USING OYSTER AQUACULTURE CAGES AND BOULDERS AS HABITAT
- 2:45 Ryan Morse**, Julie Rose, Renee Mercado-Allen, Alexandria Ambrose, Brendan Campbell, Paul Clark, Emma Cross, Zachary Gordon, Jonathan Grabowski, Edward Hale, Peter Kiffney, Stephen Kirk, Julia McDowell, Daphne Munroe, Gillian Phillips, Dylan Redman, Beth Sanderson, Kelsey Schultz, Jenny Shinn, Christopher Schillaci
DEVELOPING TOOLS TO QUANTIFY ECOSYSTEM SERVICES PROVIDED BY AQUACULTURE – INTEGRATING HABITAT AND FISH PRODUCTION
- 3:00 Julia McDowell**, Peter Kiffney, Stephanie Ehinger, Beth Sanderson
ECOLOGICAL INTERACTIONS OF SHELLFISH AQUACULTURE RELEVANT TO PUGET SOUND NEARSHORE HABITATS AND A REVIEW OF RELEVANT TOOLS, MODELS, AND CALCULATORS

RAS FUNDAMENTALS - AES

Friday, March 7 11:00 AM - 5:30 PM Galerie 3

Chairs: Mike Timmons, Brian Vinci

- 11:00 Bert Wecker**
ELEMENTS OF TODAY'S RAS (INTRO)
- 11:30 Michael B. Timmons**
RAS DESIGN: MASS BALANCES
- 12:00 Edward Aneshansley**
FISH CULTURE TANK DESIGN AND KEY FEATURES
- 12:30 LUNCH**
- 1:30 German Merino**, Joel Barraza
SOLIDS CONTROL FUNDAMENTALS IN INTENSIVE FLOW-THROUGH AND RECIRCULATING AQUACULTURE SYSTEMS
- 2:00 David Kuhn**
AQUACULTURAL ENGINEERING SOCIETY – RAS FUNDAMENTALS: OXYGENATION
- 2:30 Brian Vinci**
CARBON DIOXIDE CONTROL IN RAS

- 3:00 Snir Azaria**, Jaap van Rijn
UNLOCKING THE POTENTIAL OF DENITRIFICATION FOR ENHANCED WATER QUALITY IN RAS
- 3:30 Aikaterini Spiliotopoulou**, Lasse Polke-Pedersen, Paw Petersen
INTRODUCTION TO OZONATION AND ITS BENEFITS FOR RECIRCULATING AQUACULTURE SYSTEMS
- 4:00 Devin S. Murray**
RAS FUNDAMENTALS, HEATING AND CHILLING
- 4:30 Carlos Espinal**
OPTIMIZING PROCESS PIPING DESIGN FOR RECIRCULATING AQUACULTURE SYSTEMS: FLUID MECHANICS AND PRACTICAL INSIGHTS

ECOLOGY AND ENVIRONMENT

Friday, March 7 11:00 AM - 5:30 PM Balcony K

Chairs: Max Zavell, Gretchen McCarthy

- 11:00 Emma Cross**, Miranda Holland, Katie Kost, Dan Martino, Greg Martino
BIODIVERSITY ASSOCIATED IMPACTS OF SHELLFISH AQUACULTURE IN MARTHA'S VINEYARD, MASSACHUSETTS
- 11:15 Brett Dumbauld**, Brooke McIntyre, David Beugli, Jennifer Ruesink, Fiona Boardman, Nathaniel Lewis
ESTUARINE LANDSCAPE SCALE ASSESSMENTS OF EELGRASS AND OYSTER AQUACULTURE AS HABITAT FOR NEKTON IN A U.S. PACIFIC COAST ESTUARY
- 11:30 Carlos Carroza**, Daniel Benetti, Derie Fuentes
SPATIAL AND TEMPORAL ANALYSIS OF BIODIVERSITY IMPACT BY CHILEAN SALMON FARMS: A STUDY USING GEOSTATISTICAL INTERPOLATION
- 11:45 Maxwell Collins**, Campbell Brendan, Rileigh Hudock, Thomas Schultz, Edward Hale
USING VIDEO-BASED APPROACHES TO CENSUS THE AQUATIC COMMUNITY SURROUNDING OYSTER AQUACULTURE AND NATURAL REEF STRUCTURES IN DELAWARE BAY, DELAWARE
- 12:00 Julie Barber**, Kathleen McKeegan, Jeffery Cordell, Sarah Grossman, Neil Harrington, Lindy Hunter, Michael LeMoine, James McArdle
ASSESSING CHANGE IN COMMUNITY COMPOSITION WITHIN AND BETWEEN NATIVE OYSTER *Ostrea lurida* RESTORATION SITES

- 12:15 James Crimp**, Sierra Greene, Ginny Eckert
EXAMINING ENVIRONMENTAL DRIVERS AND IMPACTS OF MARICULTURE
ACROSS THE GULF OF ALASKA
- 12:30 LUNCH**
- 1:30 Amber Himes-Cornell**, Lucy Bowser, Francesco Cardia, Giovanna Marino, Tomaso Petochi, Ahreum Jang, Alvin Baloloy, Amel Mzoughi, Andrej Abramic, Ann Golob, Barry Costa-Pierce, Christopher Mulanda Aura, Christopher Schillaci, Doris Soto, Jonathan MacKay, Linda Fourdain, Lucíola Alves Magalhães, Michelle Pretorius, Myriam Lacharité, Patrick White, Pholphisin Suvanachai, Rebecca Gentry, Seungwon Kang, Shenghui Li, Trevor Telfer, Chiara Buonfrate
SPATIAL MANAGEMENT FOR AQUACULTURE PLANNING: DEFINING NEEDS FOR ASSISTING COUNTRIES
- 1:45 Abul Bashar**, Amaru Miranda Djurhuus, M.M.R. Jahangir, Niels O.G. Jørgensen, David Bass, Lars Hestbjerg Hansen, Mohammad Mahfujul Haque
MICROBIAL ASSOCIATIONS IN GREENHOUSE GAS EMISSIONS FROM PRAWN *Macrobrachium rosenbergii* FARMS
- 2:00 Paolo Pastorino**, Giuseppe Esposito, Silvia Colussi, Elena Bozzetta, Monia Renzi, Antonia Concetta Elia, Damià Barceló, Marino Prearo
GLOBAL CHANGE AND ENVIRONMENTAL POLLUTION IN TROUT FARMING: EMERGING CHALLENGES
- 2:15 William Wainwright**, Akash Ashapure, Navid Golpayegani, Ryan O'Shea, Arun Saranathan, Nima Pahlevan
VISUALIZING NEAR-REAL-TIME WATER-QUALITY PRODUCT MAPS VIA STREAM
- 2:30 Tyler O'Keefe**, Joel Fodrie
NUTRIENTS PROVIDED BY SEABIRDS AT FLOATING FARMS APPEAR TO GENERATE BIOGEOCHEMICAL HOTSPOTS
- 2:45 David Beasley**, Farshid S. Najafabadi
REVITALIZING LAKE ECOSYSTEMS: SEDIMENT REMEDIATION, NUTRIENT DYNAMICS, AND BENTHIC ACTIVITY IMPROVEMENTS USING TRYMARINE TECHNOLOGY IN BRICKHOUSE LAKE
- 3:00 Bibha Kumari**
IRRIGATION AND INFRASTRUCTURE DEVELOPMENT ON RIVER AND THEIR IMPACTS ON ECOSYSTEM AND MIGRATORY FISH POPULATIONS
- 3:15 Lameck Owino Opiyo**, Erick W. Oketch, Prudence W. Wamaita, Dennis B. Mureithi, Kevin O. Ogankwa, Tyson K. Odero
CONTRIBUTION OF ROTARACTORS TO THE MANGROVES RESTORATION PROJECT IN THE KENYAN COASTAL AREAS

- 3:30 Ali Parsaeimehr**, Gulnihal Ozbay
INVESTIGATING FACTORS AFFECTING AGROBACTERIUM-MEDIATED GENETIC TRANSFORMATION IN THE UNICELLULAR GREEN ALGA *Chlorella* sp.
- 3:45 Sashenka Fierro**, M. del Pilar Sánchez-Saavedra, Roberto Cruz-Flores
PHYSIOLOGICAL PERFORMANCE OF THE DIATOM *Chaetoceros* sp. AT EXPONENTIAL AND STATIONARY GROWTH PHASES
- 4:00 Jeremiah Minich**
SEASONAL VARIATION DRIVES GILL MICROBIOME DIVERSITY AND REVEALS A NOVEL SYMBIONT *Shewanella* spp. IN A FORAGE FISH *Scomber japonicus*, IMPLICATIONS FOR HOST EVOLUTION AND PHYSIOLOGY

NOAA SEA GRANT FY23 AQUACULTURE WORKFORCE TECHNOLOGIES AND EDUCATION TRAVEL GRANTS PROJECTS

Friday, March 7 11:00 AM - 12:30 PM Galerie 1

Chairs: Chuck Weirich, Mark Rath

- 11:00 Anoushka Concepcion**, Melissa Good
PRIMARY PROCESSING BOTTLENECKS: ADDRESSING BARRIERS FOR SMALL TO MEDIUM-SCALE SEAWEED PRODUCTION IN THE UNITED STATES
- 11:15 Dana Morse**, Robert Dumas, Togue Brawn, Hugh Cowperthwaite
CULINARY EXCHANGE IN SUPPORT OF THE SCALLOP FARMING INDUSTRY IN MAINE AND THE NORTHEAST U.S.
- 11:30 Lauren Jescovitch**, Elliot Nelson, Romi Novriadi
IMPROVING AQUACULTURE LITERACY FROM GREAT LAKES TO GREAT SEAS
- 11:45 Nicole Wright**, Sharon Moen, Amy Schrank, Don Schreiner, Kieran Smith, Barry Udelson
GREAT LAKES AQUACULTURE DECISION-MAKER DAYS
- 12:00 Thomas Bliss**, Bethany Walton
EXPANSION OF THE PIER TO PEER PROGRAM FOR OYSTER *Crassostrea virginica* AQUACULTURE FARMERS IN THE SOUTHEASTERN U.S.
- 12:15 Tal Ben-Horin**, David Bushek, Ryan Carnegie, Eric Herbst, Karen Hudson, Lucia Safi
WORKING TOWARD A SUSTAINABLE FRAMEWORK FOR COOPERATIVE SHELLFISH HATCHERY AUDITING THROUGH THE FY23 AQUACULTURE WORKFORCE TECHNOLOGIES AND EDUCATION TRAVEL GRANT PROGRAM

PROMOTION AND MARKETING THROUGH INNOVATIVE FISHING COMMUNITY FOCUSED PROJECTS

Friday, March 7 1:30 PM - 5:30 PM Galerie 1

Chair: Cliff Cosgrove

FRIDAY

1:30 EXPLORING MUTUALLY BENEFICIAL PRODUCTION AND MARKETING STRATEGIES FOR EMERGING WILD AND AQUACULTURE QUAHOG INDUSTRIES IN MAINE

Marissa McMahan, Manomet, Inc.

The goal of this project is to develop mutually-beneficial strategies for shellfish farmers and wild harvesters through development of production methods and market opportunities for quahogs. To do this, we will determine the viability for shellfish farmers to grow a new product (quahogs) to diversify their operations and support municipal stock enhancement programs. We will also explore opportunities to develop high-value markets for wild and farmed quahogs in Maine.

1:45 DIVERSIFYING NORTHERN NEW ENGLAND'S SEAWEED INDUSTRY BY INTEGRATING DULSE INTO SUGAR KELP FARMING EQUIPMENT AND PRACTICES

Inga Potter, Cold Current Kelp

The goal of the project is to integrate the farming of an additional commercially valuable yet not widely grown species, dulse, *Palmaria palmata*, into existing sugar kelp farms. Cultured dulse seeded on a variety of substrates and placed at varied depths will be tested on kelp farming equipment to determine optimal conditions for successful farmed cultivation of dulse in Northern New England.

2:00 MEET THE FLEET: COMMUNITY ENGAGEMENT TOOLS TO EXPAND DOMESTIC SEAFOOD CONSUMPTION

Doreen Leggett, Cape Cod Commercial Fishermen's Alliance Inc.

Learn how to engage your local community to improve relationships and deepen public appreciation for local seafood. Meet the Fleet brings together local chefs, harvesters, and the public for an informative presentation and tastings, supported by recipes, social media, and videos.

2:15 A SEA-TO-SCHOOL PROGRAM FOR THE SANTA BARBARA CHANNEL

Victoria Voss, Get Hooked Seafood LLC

Get Hooked Seafood (a Community Supported Fishery) will create a successful, replicable Ventura County Sea-to-School program which will connect K-12 school children with local seafood products through their school lunch service. We will develop and school-test several affordable, kid-friendly seafood products and deliver our most successful seafood products to 40 schools within the 6 Ventura County school districts. In addition, we will create seafood preparation trainings for school food service staff and an extensive classroom curriculum that includes participation from local fishers to educate students about local fisheries and seafood. Our ultimate goal is to increase market demand for U.S. fisheries

by developing strategies, value-added seafood products, and an educational campaign that stimulates demand for local and regional seafood in educational food service settings and beyond. Get Hooked Seafood (a Community Supported Fishery) will create a successful, replicable Ventura County Sea-to-School program which will connect K-12 school children with local seafood products through their school lunch service. We will develop and school-test several affordable, kid-friendly seafood products and deliver our most successful seafood products to 40 schools within the 6 Ventura County school districts. In addition, we will create seafood preparation trainings for school food service staff and an extensive classroom curriculum that includes participation from local fishers to educate students about local fisheries and seafood. Our ultimate goal is to increase market demand for U.S. fisheries by developing strategies, value-added seafood products, and an educational campaign that stimulates demand for local and regional seafood in educational food service settings and beyond.

2:30 BUILDING AWARENESS AND DEMAND FOR GULF OF MAINE SEAFOOD THROUGH BUSINESS PARTNERSHIPS

Carissa Maurin, Gulf of Maine Research Institute

The Gulf of Maine Research Institute (GMRI) engages with ~80 restaurants, institutions (college dining halls, K-12 schools, hospitals), and grocery stores on sourcing more regional Gulf of Maine seafood. The goal of this project is to develop a suite of digital assets and communications tools to help our partners increase the volume of regional seafood they sell and to work with businesses involved in our programs to help them achieve sourcing of at least 30% of their seafood from the Gulf of Maine region, and additionally work individually with several partners who set goals to source more than 50% of their seafood from the Gulf of Maine.

2:45 OPTIMIZING ATLANTIC CROAKER REPRODUCTIVE PERFORMANCE FOR FISHERIES CONSERVATION AND AQUACULTURE

Nicole Kirchoff, Live Advantage Bait LLC

This project aims to optimize fertilized egg production year-round in Atlantic Croaker through (a) altering in-tank water velocity (b) sex-ratio manipulation and (c) further describing spawning seasonality in Florida. These objectives will be trialled in tanks on a commercial aquaculture farm, with production output such as number of eggs, percent fertilization, perfect hatch, and survival to first feeding recorded.

3:00 EVALUATION OF AN OYSTER TRAINING PROGRAM FOR SEAFOOD SERVERS

Bethany Walton, Tom Bliss, Mario Marquez, Adriane Michaelis, Daniel Petrolia, Jason Rider, William Walton

Oyster South has embraced promotion and marketing of southern oysters as essential to sustainability and growth. We continue to work to strengthen and foster relationships among oyster farmers, chefs, and the public along with many other parts of the greater oyster community. In our recently completed project, we

focused on training servers to more effectively answer customer questions about southern farm-raised oysters to increase sales of southern oysters and support the industry.

3:15 A GROUND FISH CONSUMER PACKAGED GOODS START-UP ACCELERATOR PROGRAM DESIGNED TO INCENTIVIZE PRODUCT INNOVATION, EXPAND THE INDUSTRY AND GROW DEMAND FOR WEST COAST GROUND FISH

Jana Hennig, Positively Groundfish

Positively Groundfish proposes to run a start-up accelerator program that entices US-domestic entrepreneurs to this fishery and directly incentivizes them to develop innovative value-added products using West Coast groundfish, and that supports these entrepreneurs with financial, educational, and promotional resources to meaningfully boost their chances of success. The 20-month long project breaks down into three sequential work tracks: 1) accelerator program development and recruitment campaign; 2) a 6-month accelerator program for 5 select start-ups; 3) a post-accelerator marketing support program.

3:30 OPTIMIZING ECONOMIC BENEFITS AND ADVANCING THE PROMOTION, DEVELOPMENT, AND MARKETING OF HAWAII'S LOCAL FISHERIES

Jhana Young, Conservation International

This project will establish cross-sector collaboration and capacity building to develop value-added seafood products to optimize economic benefits to seafood producers, reduce seafood waste, and increase market demand for local seafood products in Hawaii. An estimated 40% of seafood in the United States is wasted and in Hawaii, where food security is a pressing concern, seafood accounts for the largest share of locally produced food in the state. This project will engage an established, multi-sector network of fishers, seafood distributors, chefs, educators, entrepreneurs, and marketing professionals who will both inform and benefit from this project.

3:45 COLLECTIVE GRASSROOTS PATHWAYS TOWARD RESTORATIVE AQUACULTURE: REMOVING INVASIVES AND BRINGING BACK NATIVE SPECIES

Brenda Lima, Kuaaina Ulu Auamo

Hawai'i is home to some of the first known aquaculture practices in the Pacific with a celebrated history and abundance generated from loko i'a (traditional Hawaiian fishponds) throughout the islands. Though operators have struggled for decades with declining recruitment of juvenile fishpond species such as ʻŀamaʻŀama (striped mullet) and awa (milkfish), it is an opportune time to enhance the integration of contemporary aquaculture practices in the ongoing, 800+ year adaptation and innovation of traditional practices. This project aims to accelerate the information exchange about innovative nursery tank systems through an existing network of loko i'a in Hawai'i.

4:00 PROMOTION AND MARKETING OF U.S. AQUACULTURE THROUGH WOMEN LED FISHING COMMUNITY PROJECTS
Marissa McMahan, Manomet, Inc.; Inga Potter, Cold Current Kelp; Doreen Leggett, Cape Cod Commercial Fishermen’s Alliance Inc; Victoria Voss, Get Hooked Seafood LLC; Carissa Maurin, Gulf of Maine Research Institute; Nicole Kirchoff, Live Advantage Bait LLC; Bethany Walton, Oyster South Company; Jana Hennig, Positively Groundfish; Jhana Young, Conservation International; Brenda Lima, Kuaaina Ulu Auamo
 Town Hall Style Discussion with the presenters which focuses on innovative women led projects to promote and market U.S. Fisheries

IMTA

Friday, March 7 1:30 PM - 5:30 PM Balcony J
 Chairs: Mike Coogan, Michael Chambers

- 1:30** **Charles Yarish**, Shawn Robinson
 THIERRY CHOPIN MEMORIAL PRESENTATION: THE INNOVATOR OF MODERN IMTA
- 2:00** **David Fredriksson**, Michael Chambers, Erich Berghahn, Michael Doherty, Michael Coogan
 COMMUNITY-SCALE STEELHEAD TROUT OPERATIONS IN NEW HAMPSHIRE, PART I: FROM HATCHERY TO HARVEST
- 2:15** **Michael Chambers**, Erich Berghahn, Michael Doherty, Michael Coogan, David F. Fredriksson
 COMMUNITY-SCALE STEELHEAD TROUT OPERATIONS IN NEW HAMPSHIRE, PART II: FROM HARVEST TO MARKETPLACE
- 2:30** **Zachary Davonski**, Michael Chambers
 QUANTIFYING ENERGY DEMANDS OF AN INTEGRATED MULTI-TROPHIC AQUACULTURE SYSTEM TO INFORM CO-LOCATION WITH MARINE ENERGY
- 2:45** **Brittney Honisch**, Elena Shippey, Peter Craig, Dave Ernst, Aurora M. Ricart, Suzanne N. Arnold, Joseph Salisbury, Emma Jourdain, Samuel Tan, Nichole N. Price
 BLUE MUSSELS AND SUGAR KELP: POSSIBLE CO-CULTIVATION STRATEGIES FOR A CHANGING OCEAN
- 3:00** **Michael Coogan**, David Fredriksson, Michael Doherty, Bonnie Brown, Jeffrey Miller, Erich Berghahn, Michael Chambers
 QUANTIFYING THE ENVIRONMENTAL IMPACT OF OFFSHORE INTEGRATED MULTI-TROPHIC AQUACULTURE (IMTA)

- 3:15** **Yohannes Kpordzaxor**, Dzung Nguyen, Michael Schloter, Lisa-Marie Streb, Anat Ben Zvi, Lior Guttman
THE DYNAMICS OF WATER QUALITY, MICROBIAL DIVERSITY IN INTEGRATED MULTI-TROPHIC AQUACULTURE (IMTA) OF SEA URCHINS, MULLET FISH, AND GREEN SEAWEED FOR SUSTAINABLE MARICULTURE
- 3:30** **Ana Viskovic**, Dorinde Kleinegris, Pia Steinrücken, Hanna Böppe
INNOAQUA – SUSTAINABLE AQUACULTURE PRACTICES FOR INNOVATIVE SEAFOOD PRODUCTS
- 3:45** **Leah D. Wessler**, Jennifer S. Clark, Timothy J. Green, Andrea Y. Frommel
POTENTIAL FOR DULSE SEAWEED *Devaleraea mollis* TO MITIGATE EFFECTS OF OCEAN ACIDIFICATION ON LARVAL OYSTERS *Crassostrea gigas* IN CO-CULTURE
- 4:00** **John Stieglitz**, Haley Lasco, Eva Dickie, Carlos Tudela, Ronald Hoenig
STRATEGIES FOR SUSTAINABLE IMTA PRODUCTION AND POST-HARVEST PROCESSING OF TROPICAL SEAWEED SPECIES IN THE SOUTHEAST U.S. AND CARIBBEAN
- 4:15** **Shaun Moss**, Dustin Moss, Carolyn Jones
DEVELOPMENT OF AN INTEGRATED MULTI-TROPHIC AQUACULTURE SYSTEM TO RESTORE HAWAII'S VULNERABLE LIMU (SEAWEED) POPULATIONS
- 4:30** **Kayla Roy**, Matthew Elliott, Yuanzi Huo, Mark Drawbridge
GROWTH AND WASTE REMOVAL CAPACITY OF THE WARTY SEA CUCUMBER *Apostichopus parvimensis* FROM WHITE SEABASS *Atractoscion nobilis*
- 4:45** **Yuanzi Huo**, Kayla Roy, Matthew Elliott, Mark Drawbridge
THE INTEGRATED CULTURE OF FISH, SEA CUCUMBERS, AND TWO-STAGE MACROALGAE IN A LAND-BASED CASCADE IMTA SYSTEM: PERFORMANCE AND WASTE REMOVAL EFFICIENCIES
- 5:00** **Noah Kolander**, Andrew Kim, Maya deVries, Scott Hamilton, Michael Graham
SET IT AND FORGET IT! A RED ABALONE *Haliotis rufescens* AND DULSE *Devaleraea mollis* IMTA COMPARISON OF A DUAL AND SINGLE TANK DESIGN
- 5:15** **Catriona Macleod**, Mark Cyrus
INTEGRATED MULTI-TROPHIC AQUACULTURE – HOW GEOPOLITICS CAN IMPACT ITS VIABILITY AND SUSTAINABILITY AS MUCH AS ECOLOGY OR BIOLOGY

MODELING: APPLICATIONS IN CLIMATE CHANGE, FISHERIES AND ECOSYSTEM MANAGEMENT

Friday, March 7 1:30 PM - 2:15 PM Studio 8

Chairs: Eric Powell, Autumn Moya, Emma Coltman, Molly Spencer

FRIDAY

- 11:00 Eric N. Powell**, Autumn L. Moya, Daphne M. Munroe, Roger Mann, Sarah Borsetti, Kelsey M. Kuykendall
TEMPERATURE, MAXIMUM SIZE, AND THE ATLANTIC SURFCLAM *Spisula solidissima*: THE SENSITIVITY OF DEMOGRAPHICS TO CLIMATE WARMING, THE PERFDY OF FOOD, AND A VIGNETTE ON SIZE-LIMITED MANAGEMENT IN BIVALVE FISHERIES
- 11:15 Autumn Moya**, Eric Powell, Daniel Hennen
DIRECT EVALUATION OF THE INFLUENCE OF SIZE DISTRIBUTIONS ON THE ATLANTIC SURFCLAM *Spisula solidissima* FISHERY IN THE U.S. MID-ATLANTIC
- 11:30 Ellen Rowe**, Melissa Southworth, Roger Mann
VISUALIZING 20 YEARS OF CHANGE IN CHESAPEAKE BAY OYSTERS
- 11:45 Emma Coltman**, Eric N. Powell, Xiaodong Zhang, Kristina Mojica, Danielle A. Kreeger, James C. Klein
MODELING LARVAL PERFORMANCE OF THE EASTERN OYSTER *Crassostrea virginica* UNDER FIELD CONDITIONS: *IN SITU* SIZE PROFILES OF THE FOOD ASSEMBLAGE IN THE WESTERN MISSISSIPPI SOUND
- 12:00 Romuald Lipcius**, Jian Shen, Leah Shaw, Sarah Brownstein
MODELING METAPOPOPULATION DYNAMICS AND CONNECTIVITY IN OYSTER RESTORATION
- 12:15 Romain Lavaud**, Shaye Sable, Tim Stephens, Megan La Peyre, Kenny Rose, Zhengchen Zang, Zuo Xue, Ovel Diaz, Ioannis Georgiou, Simeon Yurek, Hongqing Wang, Brady Carter, David Lindquist
USING METAPOPOPULATION MODELING TO SUPPORT OYSTER RESTORATION AND AQUACULTURE IN LOUISIANA'S COASTAL BASINS
- 12:30 LUNCH**
- 1:30 Eileen Hofmann**, Mauricio Diaz, John Klinck, Daphne Munroe, Eric Powell, Andrew Scheld, Roger Mann
IMPLICATIONS OF AGE-BASED MORTALITY FOR ATLANTIC SURFCLAM *Spisula solidissima* POPULATION DYNAMICS

- 1:45 Molly Spencer**, Dan Hennen, Eric Powell
EVALUATING THE INTEGRITY OF A STRATIFIED RANDOM STOCK SURVEY DESIGN IN LIGHT OF PROJECTED CLIMATE-INDUCED CHANGES IN SPECIES DISTRIBUTIONS: AN ATLANTIC SURFLAM CASE STUDY
- 2:00 Joao G. Ferreira**, Ramón Filgueira, Ian Gardner, Gregor Reid, Leah Lewis-McCrea, Kiersten Watson, Alexander van Oostenrijk
A WEB-BASED FRAMEWORK FOR AQUACULTURE SUSTAINABILITY – APPLICATION OF THE FINS MODEL TO TEN BAYS IN EASTERN CANADA

SHRIMP NUTRITION

Friday, March 7 1:30 PM - 5:30 PM Salon F

Chair: Melanie Rhodes

- 1:30 Cristhian San Andres**, Jairo Gonzalez, Khanh Nguyen, Melanie Rhodes, Arnold Gutierrez, Luke Roy, Allen Davis
ASSESSMENT OF CORN FERMENTED PROTEIN WITH YEAST AS A COMPLEMENT PROTEIN SOURCE TO IMPROVE SOYBEAN MEAL FORMULATION IN PACIFIC WHITE SHRIMP *Litopenaeus vannamei* UNDER GREENWATER RECIRCULATION SYSTEM
- 1:45 Cristhian San Andres**, Khanh Nguyen, Jairo Gonzalez, Arnold Gutierrez, Luke Roy, Melanie Rhodes, Julio Garcia, Allen Davis
THE USE OF CORN FERMENTED PROTEIN WITH YEAST AS A PROTEIN SOURCE COMPLEMENT WITH SOYBEAN MEAL IN PRACTICAL DIETS IN POND PRODUCTION OF PACIFIC WHITE SHRIMP *Litopenaeus vannamei*
- 2:00 Trinh Ngo**, Allen Davis, Timothy Bruce
ETHANOL CO-PRODUCT AS SUSTAINABLE PROTEIN SOURCES IN WHITE SHRIMP *Litopenaeus vannamei* DIETS
- 2:15 Martin Perez-Velazquez**, Mayra Lizett González-Félix
EVALUATION OF BACTERIAL-BASED SINGLE CELL PROTEIN IN THE DIET OF PACIFIC WHITE SHRIMP *Litopenaeus vannamei*
- 2:30 Jairo A. Gonzalez**, Cristhian F. San Andres, Khanh Nguyen, Arnold Gutierrez, Melanie A. Rhodes, Luke A. Roy, Timothy J. Bruce, D. Allen Davis
EFFECT AND INTERACTIONS BETWEEN XYLANASE, PHYTASE AND A PROTEASE COMPLEX ON THE GROWTH PERFORMANCE OF PACIFIC WHITE SHRIMP *Litopenaeus vannamei*
- 2:45 Tucker Graff**, Trinh Ngo, D. Allen Davis, Sajid Alavi
EVALUATION OF SORGHUM-BASED DIETS AND EXTRUSION ENERGY INPUTS ON THE PHYSICAL QUALITY AND GROWTH PERFORMANCE OF PACIFIC WHITE SHRIMP *Litopenaeus vannamei* FEED

- 3:00 Lay Nguyen**, Sirirat Chatvijitkul, Mihai Sun
EVALUATION OF THE EFFECTS OF DIETARY TREATMENTS ON THE INHIBITION OF *Enterocytozoon hepatopenaei* (EHP) ON PACIFIC WHITE SHRIMP *Litopenaeus vannamei* UNDER LABORATORY CONDITION
- 3:15 Lay Nguyen**, Lel Truong
ECONOMIC EVALUATION OF HIGH AND LOW PROTEIN FEED APPLICATION IN HIGH STOCKING DENSITY OF PACIFIC WHITE SHRIMP *Litopenaeus vannamei*
- 3:30 Silvio Peixoto**, Fabio Costa Filho, Roberta Soares
RECENT ADVANCES AND APPLICATIONS OF PASSIVE ACOUSTIC MONITORING IN ASSESSING SHRIMP FEEDING BEHAVIOUR
- 3:45 Jairo A. Gonzalez**, Cristhian F. San Andres, Khanh Nguyen, Arnold Gutierrez, Melanie A. Rhodes, Luke A. Roy, Timothy J. Bruce, D. Allen Davis
EFFECT OF DIFFERENT LEVELS OF XYLANASE SUPPLEMENTS ON THE GROWTH PERFORMANCE OF PACIFIC WHITE SHRIMP *Litopenaeus vannamei* REARED IN A GREENWATER SYSTEM
- 4:00 Aakriti Khanal**, Khanh Q. Nguyen, Timothy J. Bruce, D. Allen Davis
THE EFFECTS OF DIFFERENT SOYBEAN MEAL SOURCES ON THE GROWTH PERFORMANCE OF PACIFIC WHITE SHRIMP *Litopenaeus vannamei* REARED IN THE CLEARWATER SYSTEM
- 4:15 Riyad Taguemount**, Jarunan Pratoomyot, Andrew P. Shinn, Hassan Ibrahim Sheikh Mohamed, Rasina Rasid
ANTIMICROBIAL ACTIVITY OF *Centella asiatica* EXTRACTS AND THEIR POWDERED DIETARY SUPPLEMENT EFFECTS ON GROWTH, SURVIVAL, AND DISEASE RESISTANCE IN *Macrobrachium rosenbergii* LARVAE

PERCID CULTURE

Friday, March 7 1:30 PM - 5:30 PM Balcony M

Chairs: J. Alan Johnson, Greg Fischer

- 1:30 Mark Schmitz**, Uroš Ljubobratovic
EVALUATION OF EXCEPTIONALLY EARLY PRESEASONAL SPAWNING IN PIKEPERCH *Sander lucioperca*
- 1:45 Kevin Kelsey**
BREAKING THE BOTTLENECK OF THE INTENSIVE CULTURE PRODUCTION OF WALLEYE *Sander vitreum* FINGERLINGS UTILIZING RECIRCULATING AQUACULTURE SYSTEMS (RAS)

- 2:00 David Bergerhouse**, Jeremiah Haas, Ruthann Huebner
PRODUCTION OF WALLEYE *Sander vitreus* FINGERLINGS IN A
RECIRCULATING AQUACULTURE SYSTEM
- 2:15 Gregory Fischer**, Tyler Firkus, Kendall Holmes, Patrick Blaufess, Jon Amberg,
Christopher Hartleb
DIET INFLUENCES SURVIVAL AND GROWTH OF INTENSIVELY REARED
LARVAL SAUGEYE *Sander vitreus* × *S. canadensis*
- 2:30 Konrad Dabrowski**, Kevin Fisher, Mackenzie Miller
HOW TO DESIGN VALID SYSTEM OF PRODUCING MONOSEX POPULATION
OF WALLEYE AND AVOID POSTZYGOTIC SEX REVERSAL IN GYNOGENETIC
INDIVIDUALS DUE TO STRESS – CORTISOL HYPOTHESIS
- 2:45 Connor Schwepe**
LESS IS MORE: SMALLER LOT SIZES IMPROVE TRIPLOID PRODUCTION
AND HATCH RATES OF WALLEYE *Sander vitreus*
- 3:00 Joy Terry**
DESIGN CONSIDERATIONS FOR COOL-WATER AQUACULTURE OF
WALLEYE AND SAUGER USING RECIRCULATING AQUACULTURE SYSTEMS
- 3:30 J. Alan Johnson**
ACHIEVEMENTS AND CHALLENGES TO THE ADAPTATION OF WALLEYE
Sander vitreus CULTURE TECHNIQUES TO RECIRCULATION AQUACULTURE
SYSTEMS
- 4:00 Edward Aneshansley**
COMMERCIAL WALLEYE *Sander vitreus* AQUACULTURE: POTENTIAL AND
CHALLENGES
- 4:15 Robert Rode**
WALLEYE *Sander vitreus* REARING AT THE AQUACULTURE RESEARCH LAB
AT PURDUE UNIVERSITY
- 4:30 Teo Buisson**, Claire Knudsen, Alexander Gregory, John Conto, Dong Fang Deng
IMPACT OF DIETARY MICROPLASTIC CONTAMINATION ON SURVIVAL,
GROWTH PERFORMANCE, AND HEAT SHOCK TOLERANCE IN JUVENILE
YELLOW PERCH *Perca flavescens*

ORNAMENTALS

Friday, March 7 1:30 PM - 5:30 PM Galerie 4

Chairs: Michelle (Mick) Walsh, Matt DiMaggio

- 1:30 Todd R. Gardner**
BIOTA NC: HOW A PUBLIC/PRIVATE PARTNERSHIP FOR THE PRODUCTION OF MARINE ORNAMENTAL SPECIES CAN BENEFIT STUDENTS AND AN INDUSTRY
- 1:45 Brittney Lacy**, Casey Murray, Olivia Markham, Maribeth Eslava, Travis Knorr, Matthew DiMaggio
EFFECTS OF LARVICULTURE PROTOCOL MANIPULATION ON THE SURVIVAL AND GROWTH OF OCELLARIS CLOWNFISH *Amphiprion ocellaris*
- 2:00 Casey Murray**, Travis Knorr, Amy Wood, Olivia Markham, Brittney Lacy, Matthew DiMaggio
INVESTIGATING LIQUID DIETS AS LIVE FEED REPLACEMENTS IN FRESHWATER ANGELFISH *Pterophyllum scalare* LARVICULTURE
- 2:15 Chatham Callan**, Kent Glover
AQUACULTURE TECHNIQUES AND EARLY LIFE HISTORY OF THE HAWAIIAN ENDEMIC POTTER'S ANGELFISH *Centropyge potteri*
- 2:30 Jessie L. Castanier**
PUT YOUR EGGS IN ONE BASKET: COLLECTING MARINE ORNAMENTAL FISH EGGS AT THE TEXAS STATE AQUARIUM
- 2:45 Olivia Markham**, Casey A. Murray, Amy L. Wood, Matthew A. DiMaggio
SPECTRAL SENSITIVITY OF *Puntius tittैया* PHOTORECEPTORS THROUGHOUT LARVAL DEVELOPMENT
- 3:00 Travis Knorr**, Casey Murray, Olivia Markham, Brittney Lacy, Amy Wood, Matthew DiMaggio
BEYOND BRINE SHRIMP: FEED ATTRACTANTS AND LIQUID ARTEMIA REPLACEMENT DIETS FOR THE CULTURE OF THE ALBINO RAINBOW SHARKMINNOW *Epalzeorhynchus frenatum*
- 3:15 Eric Litvinoff**, Michael Guyot, Tara Amatrudo, Michael Kuczenski
BRIDGING THE KNOWLEDGE GAP BETWEEN CORAL CONSERVATION AND THE REEF KEEPING HOBBY: AN EXPERIMENT WITH HIGH SCHOOL STUDENTS IN GROTON, CONNECTICUT
- 3:30 Quenton M. Tuckett**, Meghan Eaton, Jeffrey Hill
INVASIVENESS OF ORNAMENTAL FISH IN THE CONTERMINOUS UNITED STATES

- 3:45 Renata Farias**, Cortney Ohs, Fred Shopnitz, José Ordóñez Montoya, Matthew DiMaggio, Casey Murray
EFFECTIVENESS OF ARTEMIA REPLACEMENT FOR LARVAE OF TWO ORNAMENTAL FRESHWATER FISH SPECIES
- 4:00 Martin Perez-Velazquez**, Mayra Lizett González-Félix, Reyna Dayhana Félix-Berumen
ADVANCES IN THE CAPTIVE BREEDING OF *Chromis limbaughi* AND *Opistognathus rosenblatti*, TWO ENDEMIC SPECIES FROM THE GULF OF CALIFORNIA, MEXICO

AQUATIC ANIMAL MODEL HUSBANDRY WORKSHOP

Friday, March 7 1:30 PM - 5:30 PM Salon H

Chair: Bobbi M. Baur

- 1:00 INTRODUCTION** Aquaneering
ZIRC Update ZIRC
ZHA UPDATE ZHA
- 1:30 THE EVOLUTION OF ZEBRAFISH RESEARCH: MILESTONES, INNOVATIONS AND WHAT LIES AHEAD**
Josh Barber, Columbia University
- 2:00 DO LONELY PARENTS PRODUCE BIGGER OFFSPRING?**
Aubrey Dissinger, Karolina Kwasek
- 2:30 BREAK**
- 2:45 MULTIPLE SPECIES REGULATORY OVERSIGHT**
George Sanders, University of Washington
- 3:15 CURRENT STATUS OF BEST MANAGEMENT PRACTICES FOR THE HUSBANDRY OF XENOPUS LAEVIS IN BIOMEDICAL RESEARCH**
Hugh Hammer, University of Pittsburg
- 3:45 WHAT A GAR WANTS, WHAT A GAR NEEDS: SPOTTED GAR AS A LABORATORY MODEL FOR VERTEBRATE BIOLOGY AND DISEASE**
Ingo Braasch, Michigan State University
- 4:15 BIOSECURITY CONSIDERATIONS FOR MULTISPECIES AQUATICS FACILITIES**
Marcus Crim, IDEXX

ROBOTICS AND EMERGING TECHNOLOGIES

Friday, March 7 1:30 PM - 4:00 PM Salon C

Chair: Allen Pattillo

- 1:30 Bing Ouyang**, Paul Wills, Jason Hallstrom, Yufei Tang, Tsung-Chow Su, James Garvey
INNOVATING U.S. AQUACULTURE WITH AI AND ROBOTICS: THE JOURNEY FROM HAUCS TO IREPA
- 1:45 Katie Houle**
APPLICATIONS OF SMALL AERIAL DRONES FOR INTERTIDAL SHELLFISH FARM MANAGEMENT AND PRODUCTION
- 2:00 Renu Ojha**, Jonathan van Senten
INVESTMENT ANALYSIS OF S3AM ADOPTION IN OYSTER FARMS: EVALUATING THE FEASIBILITY OF PURCHASE VS. SUBSCRIPTION OPTIONS
- 2:15 Alan Williams**, Matthew Gray
MONITORING SUSPENDED SEDIMENT PLUMES INDUCED BY REMOTE OPERATED VEHICLE SURVEYS WITHIN AN ON-BOTTOM OYSTER LEASE
- 2:30 Marios Xanthidis**, Sveinung Johan Ohrem
AUTONOMOUS NAVIGATION AND INSPECTION IN AQUACULTURE: RECENT BREAKTHROUGHS AND FUTURE DIRECTIONS FOR ROBUST OPERATION
- 2:45 Ernest Hale**, Todd Osborne
LEVERAGING THE R-STRATEGY AND UNMANNED AERIAL VEHICLES TO OVERCOME PREDATION IN SHELLFISH RESTORATION PROJECTS
- 3:00 Steve Pattison**, Johnny Shockley, Jordan Shockley
AUTOMATING OYSTER AQUACULTURE WITH THE SUN
- 3:15 Sharon Xin Ying Chuah**, Yiming Feng, Yue Sun, Boce Zhang, Renée Goodrich, Ana Porras, Razieh Farzad
STRUCTURAL AND TEXTURAL CONSIDERATIONS FOR DEVELOPING ALTERNATIVE SEAFOOD ANALOGS
- 3:30 Andre Greene**, Mario Sánchez Méndez, Andrew Bennett, Michael Triantafyllou
DESIGN ITERATIONS OF A USV DESIGNED FOR OYSTER AQUACULTURE
- 3:45 Steven Hall**, Celso Castro-Bolinaga, Swarna Chowdhury, Natalie Nelson, John-Paul Ore, Daniel Smith, Sierra Young
AUTONOMOUS VEHICLE SYSTEMS IN OYSTER AQUACULTURE: FINDINGS FROM NSF/USDA NATIONAL ROBOTICS INITIATIVE AND FUTURE NEEDS

IMPLEMENTING THE NATIONAL AQUACULTURE DEVELOPMENT PLAN

Friday, March 7 1:30 PM - 5:30 PM Galerie 2

Chairs: Caird Rexroad, Gabriela McMurtry

FRIDAY

- 1:30 Welcome**
Congressman Troy A. Carter
- 1:50 National Aquaculture Association Plenary**
Sebastian Belle
- 2:20 Subcommittee on Aquaculture Plenary**
Michael Rubino
- 2:50 Subcommittee on Aquaculture Task Force Updates**
Science Planning – Caird Rexroad
Regulatory Efficiency – Kristine Cherry
Economic Development – David O'Brien, Christopher Davis
- Federal Agency Updates**
- 3:20 Agriculture**
ARS – Caird Rexroad
NASS – Travis Averill
ERS – Christopher Davis
RMA – Chandra Place
FSA – Steve Peterson, Seth Cross
APHIS VS – Lisa Rochette
AMS – Sherry Wise
- 4:30 Commerce**
OA – Danielle Blacklock
SG – Jon Pennock or Kola Garber
NCCOS – TBD
EDA – TBD
- 5:10 Interior**
R&D David Hu (USGS) and Nathan Wilke (FWS)
Tribal/Indigenous Aquaculture (TBD)
AADAP Guppy Blair
- 5:30 Closing Remarks**

SHELLFISH AND CLIMATE CHANGE: ACTIONS TO UNDERSTAND AND REDUCE IMPACTS

Friday, March 7 2:30 PM - 5:30 PM Studio 8

Chair: Sally McGee

FRIDAY

- 2:30** **Natalie Sprague**, Eileen Hofmann, John Klinck, Soenke Dangendorf, Eric Powell, Roger Mann, Nina Whitney, Caroline Ummerhofer
RECONSTRUCTING BOTTOM WATER TEMPERATURE DISTRIBUTIONS ON THE MID-ATLANTIC CONTINENTAL SHELF
- 2:45** **Gary Fleener**, Maxwell Rintoul, Justin Mojonner, Austin Maguire, Terry Sawyer
BUILDING CLIMATE RESILIENCE AT HOG ISLAND OYSTER COMPANY
- 3:00** **Leslie Sturmer**, Shirley Baker
CLIMATE CHANGE IMPACTS TO A CLAM AQUACULTURE INDUSTRY IN FLORIDA AND POTENTIAL ADAPTATION STRATEGIES
- 3:15** **Jessica Ericson**, Natali Delorme, Stella Mackrell, Summer Norgate, Rodney Roberts, Alba Cervantes-Loreto, Paul South, Camille Baettig, Leonardo Zamora, Benjamin Knight, Laura Biessy, Olivier Laroche, Xavier Pochon, Jacob Thomson-Laing, Kasey Mollison, Samantha Carter, Tom Corbin, Daniel Cross, Haydn Read, Nick King, Kirsty Smith, Norman Ragg, Megan Scholtens
CHARACTERIZING THE MECHANISMS UNDERPINNING THERMAL TOLERANCE IN SELECTIVELY BRED GREEN-LIPPED MUSSELS *Perna canaliculus*
- 3:30** **Grace Leuchtenberger**, Emily Carrington
INCREASED STOCKING DENSITY REDUCES THERMAL RISK DURING EMERSION: A WIND TUNNEL STUDY USING ROBO-OYSTER BIOMIMETIC LOGGERS
- 3:45** **Chip Terry**
PANELIST: SHELLFISH AND THE CLIMATE

GENETIC ENGINEERING IN AQUACULTURE

Friday, March 7 2:30 PM - 5:30 PM Studio 9

Chairs: John Buchanan, Yonathan Zohar

FRIDAY

- 2:30 Ricardo Shohei Hattori**
DEVELOPMENT OF IMPROVED FISH STRAINS USING GENOME EDITING TECHNOLOGY IN JAPAN
- 2:45 Rex Dunham**, Baofeng Su, De Xing, Mei Shang, Jinhai Wang, Misha Soman, Hamza Dilawar, Nadeen Abdo, Dhanuka Hewage
KNOCKIN/KNOCKOUT IN CHANNEL CATFISH TO IMPROVE GROWTH DISEASE RESISTANCE AND OMEGA-3 FATTY ACIDS COUPLED WITH STERILITY
- 3:00 Michael Phelps**, Andrew Saavedra, Miles Wilson, Evan Barnes, Collin Landreth, Isabel Russo, Chaya Gaberria
INTEGRATING MACHINE LEARNING DRIVEN PHENOMICS AND HIGH-THROUGHPUT CRISPR GENOME EDITING TO BUILD THE FOUNDATION FOR RAINBOW TROUT GENOME DESIGN
- 3:15 Yehwa Jin**, Xavier Lauth, Brandon Tsai, John Buchanan
GENOME EDITING AND TRANSPLANTATION OF INDUCED PRIMORDIAL GERM CELLS IN NILE TILAPIA *Oreochromis niloticus*
- 3:30 Lene Kleppe**, Diego Crespo, Alex Datsomor, Tom J. Hansen, Per Gunnar Fjellidal, Rüdiger W. Schulz, Laurence Hoareau, Eric M. Thompson, Ross Houston, Eduardo Rodriguez, Goro Yoshizaki, Anna Wargelius
SURROGATE BROODSTOCK TECHNOLOGY: OPTIMIZATION OF PROTOCOLS FOR ATLANTIC SALMON
- 3:45 Kenneth Riley**, Adam Luckenbach
STERILITY AS A SOLUTION: REDUCING ECOLOGICAL RISKS AND IMPROVING FARM MANAGEMENT
- 4:00 Takeshi Umazume**, Stefan Samu, Brandon Tsai, John Buchanan, Goro Yoshizaki, Xavier Lauth
THE EFFECT OF MIR202 KO ON STERILITY IN NILE TILAPIA AND THE METHOD FOR MASS PRODUCTION OF KO FISH
- 4:15 Yonathan Zohar**, Ten-Tsao Wong
INDUCTION OF REPRODUCTIVE STERILITY IN FISH BY A TRANSIENT GENE SILENCING TECHNOLOGY
- 4:30 Ashutosh Pudasaini**, Tuong Tran, John Buchanan
PROGRESS IN GENOME EDITING FOR PACIFIC WHITE SHRIMP *L. vannamei*

- 4:45 Isam Khalaila**, Shany Cohen, Omer Ilouz, Mahde Hasan, Ehud Elfer, Yuval Malca
TRANSOVARIAL TRANSMISSION: TOWARDS SUSTAINABLE SHRIMP AQUACULTURE THROUGH INTERGENERATIONAL MANIPULATION OF GENE EXPRESSION
- 5:00 John Buchanan**, Matthew Josephson, Takeshi Umazume, Ashutosh Pudasaini, Stefan Samu, Brandon Tsai
UNLOCKING COMMERCIAL SCALE GENOME EDITING

INTERNATIONAL ASSOCIATION OF AQUACULTURE ECONOMICS AND MANAGEMENT - ECONOMICS AND MARKETS - DAY 1

Friday, March 7 3:00 PM - 5:30 PM Galerie 5
Chairs: Frank Asche, Shradda Hedge, Atle Oglend

- 3:00 Md Emran Hossain**, Madan Mohan Dey, Hurunnahar Khushi, Pratheesh Omana Sudhakaran, Md. Akhtaruzzaman Khan
AN OVERVIEW OF FOOD SAFETY POLICIES IN BANGLADESH
- 3:15 Madan Dey**, Uttam Deb, Md. Saidur Rahman, Md. Farid Dewan, Md. Akhtaruzzaman Khan
MARKET DOMAINS FOR SAFER FISH PRODUCED THROUGH GOOD AQUACULTURE PRACTICES: EVIDENCE FROM BANGLADESH
- 3:30 Pratheesh Omana Sudhakaran**, Madan Dey, Hurunnahar Khushi, Md. Saidur Rahman, Md. Akhtaruzzaman Khan
DETERMINING THE CONSTRAINTS FACED BY CONSUMERS IN CONSUMING SAFER FISH IN BANGLADESH
- 3:45 Madan Mohan Dey**, Oai Li Chen
PROJECTING THE FUTURE POTENTIAL FOR PRODUCTION OF SAFER ROHU, TILAPIA AND PANGAS IN BANGLADESH
- 4:00 Hiva Asadikia**, Shraddha Hegde, Jonathan van Senten, Carole Engle, Ganesh Kumar, Andrew Ray
DESIGNING ECONOMIC RISK ANALYSES FOR VARIOUS SPECIES AND PRODUCTION SYSTEMS IN U.S. AQUACULTURE
- 4:15 Christian Brayden**, Caroline Noblet, Keith Evans, Kanae Tokunaga, Kat Maltby, Ben Cotton, Giselle Silsby, Keri Kaczor
EXPANDING MAINE'S BLUE ECONOMY – A FINAL REPORT ON MAINE'S AQUACULTURE MARKETING NEEDS, SUPPLY CHAIN LOGISTICS, AND CONSUMER PREFERENCES

- 4:30 Isaac Wu**, Klaus Moeltner, Kaitlynn Ritchie, Shamar Stewart,
Jonathan van Senten
WILLINGNESS-TO-PAY FOR R.A.S. SALMON BY THE U.S. CONSUMER
- 4:45 James L. Anderson**, Frank Asche, Taryn Garlock
INSIGHTS INTO THE FACTORS CONTRIBUTING TO ENVIRONMENTAL,
ECONOMIC AND SOCIAL SUSTAINABILITY OF AQUACULTURE

RESEARCH DOWN ON THE FARM – PANEL

Friday, March 7 3:45 PM - 5:30 PM Salon E

Chair: Ken Riley

Moderator: Ken Riley, NOAA Office of Aquaculture

Panel members:

Tal Ben-Horin, North Carolina State University
Joth Davis, Baywater Shellfish
Bill Dewey, Chuckanut Shellfish
Dana Morse, Maine Sea Grant and University of Maine Cooperative Extension
Terry Sawyer, Hog Island Oyster

Summary:

Get ready for an engaging panel discussion that delves into the critical relationship between shellfish growers and researchers! Panelists will share real-world experiences with active research on farms, covering the types of studies that matter most and the dynamics of collaboration with scientists and extension services. Participants will gain valuable insights into overcoming challenges in research partnerships, such as working with students, managing liabilities, understanding the true costs of supporting research, and protecting intellectual property, while also exploring ways to increase industry participation in surveys and collaborative projects. This session promises practical solutions, lessons learned, and forward-thinking strategies to advance the future of shellfish aquaculture research.

SATURDAY, March 8

PROTEIN 5.0: SHRIMPING THE INDUSTRY

Saturday, March 8 8:30 AM - 12:30 PM Salon F

Chair: Maddi Badiola

Disease, Health and Certifications

- 8:30** INTERNATIONAL MOVEMENT, NEGOTIATIONS, & STANDARDS FOR SHRIMP
Alicia Marston, Aquatic Trade Director, USDA
- 8:45** BUILDING A BETTER SHRIMP: PERSPECTIVES ON BREEDING AND
BROODSTOCK PRODUCTION SYSTEMS
Craig Browdy, Chief Technology Officer, SyAqua
- 9:00** A BRIEF RETROSPECTIVE OF THE HAWAII SHRIMP HEALTH
CERTIFICATION PROGRAM AND SPF SHRIMP BROODSTOCK
Micah Brodsky, Veterinary Medical Officer, Hawaii Department of Agriculture

Operations and Maintenance

- 9:15** DON'T BE A STATISTIC: STRATEGIES FOR COST EFFECTIVE OPERATIONS
AND FACILITIES MANAGEMENT
Dan Farkas, Project Manager, HTH Full Spectrum Aquaculture
- 9:30** INTENSIVE SHRIMP CULTURE, KEY CONSIDERATIONS FOR AERATION
COSTS AND AERATION EQUIPMENT DOWNTIME
Ben Ashe, CEO, MDM Pumps
- 9:45** RAS FUNDAMENTALS - HYDRONIC HEATING & CHILLING
Rick Murray, President, Delta Hydronics

10:00 BREAK

Success Stories

- 10:30** CROSSING THE RAS CHASM: MOVING FROM PROOF OF CONCEPT TO
SCALE
Steve Sutton, President-CEO, TransparentSea
- 10:45** THE EVOLUTION OF SHRIMP BREEDING: HOW BREEDING CHANGED
SHRIMP FARMING
Robins McIntosh, Executive Vice President, Charoen Pokphand Foods Public
Company

Market and Consumers

11:00 CHALLENGES FACING THE DOMESTIC MARKET

Tyler Hershey, Sales Operation Manager, Zeigler

11:15 GLOBAL SHRIMP COUNCIL PROMOTING SHRIMP WORLDWIDE

Gabriel Luna, Co-founder, Global Shrimp Council

11:30 THE U.S. SHRIMP MARKET: PRE-PANDEMIC AND POST-PANDEMIC DYNAMICS

Angel Rubio, Lead Analyst, Expana

11:45 ROUND TABLE

STRATEGIES AND TOOLS FOR ENHANCING AQUACULTURE'S CLIMATE RESILIENCE AND ENVIRONMENTAL BENEFITS

Saturday, March 8 8:30 AM - 1:00 PM Balcony K

Chair: Taylor Voorhees

8:30 EXPANDING OUR IMPACT: THE EVOLUTION OF TNC GLOBAL AQUACULTURE

Taylor Voorhees, The Nature Conservancy

9:00 MONITORING, EVALUATION, AND LEARNING FRAMEWORK FOR RESTORATIVE AQUACULTURE

Megan Considine, The Nature Conservancy

9:30 SUPPORTING OYSTER AQUACULTURE AND RESTORATION

Molly Bogeberg, The Nature Conservancy

10:00 BREAK

10:30 FROM THE START: SMART SITING TO SET AQUACULTURE DEVELOPMENT ON A COURSE TO RESTORATIVE PRODUCTION

Tiffany Waters, The Nature Conservancy

11:00 CAN SHRIMP AQUACULTURE BE REGENERATIVE? TNC'S VISION AND ANALYSIS FOR GETTING THERE

Antonio Santa Marta, The Nature Conservancy

11:30 FINANCING SUSTAINABLE AQUACULTURE: HOW THE BLUE REVOLUTION FUND DEFINES, GENERATES, AND MONITORS IMPACT INVESTMENT IN AQUACULTURE

Lisa Tucker, The Nature Conservancy

12:00 Q&A AND GROUP DISCUSSION

INNOVATIVE VETERINARY PRACTICES IN AQUACULTURE

Saturday, March 8 8:30 AM - 12:30 PM Salon A
Chairs: Pat Gaunt, Grace Karreman, Nicole Nietlisbach

- 8:30** ANTIMICROBIAL SUSCEPTIBILITY TESTING: WHAT DO VALUES REALLY MEAN?
Dr. Patricia Gaunt, Mississippi State University College of Veterinary Medicine, Mississippi State, MS
- 9:00** AN EVALUATION & COMPARISON OF BACTERIAL PATHOGENS ISOLATED FROM CATFISH DISEASE OUTBREAKS IN ALABAMA INCLUDING ANTIMICROBIAL SUSCEPTIBILITIES BY YEAR DURING 2021-2023
Dr. Tim Kniffen, Merck Animal Health, Lenexa, KS
- 9:30** PREVENTIVE STRATEGIES FOR DISEASE MITIGATION THROUGH FEED ADDITIVES
Dr. Jessica Fox, Fins Feathers Fur and Fetlocks, Marshall, MN
- 10:00** **BREAK**
- 10:30** VETERINARY INPUT INTO MANAGING LARGE AQUATIC MORTALITY EVENTS
Dr. Grace Karreman, Karreman Veterinary Consultant, Nanaimo, BC
- 11:00** ENHANCING VETERINARY TRAINING IN AQUATIC MEDICINE: COLLABORATIVE MINI-SYMPOSIUMS TO ADDRESS THE GROWING NEEDS OF LATIN-AMERICAN AQUACULTURE
Dr. Esteban Soto, University of California-Davis, Davis, CA
- 11:30** STRENGTHENING THE AQUACULTURE VETERINARY WORKFORCE
Dr. Myron Kibus, Michigan State University, East Lansing, MI
- 12:00** MAKING BIOCHEMISTRY CLINICAL: APPLICATION OF SERUM BIOCHEMISTRY IN AQUACULTURE
Dr. Mark Braceland, WellFish Tech, Charlottetown, PEI

SATURDAY

COOPERATIVE PURSUIT OF IMPROVED FISH HEALTH: REGULATORY AND RESEARCH UPDATES FOR AQUACULTURE DRUGS

Saturday, March 8 8:30 AM - 12:30 PM Galerie 2

Chair: Shane Ramee

SATURDAY

- 8:30** FDA - CENTER FOR VETERINARY MEDICINE UPDATES
Stacy Pulver, FDA CVM
- 8:45** INTERNATIONAL APPROVAL EFFORTS
Eric Landis, FDA CVM
- 9:00** UNMET DRUG NEEDS SURVEY RESULTS
Paige Maskill, USFWS AADAP
- 9:15** PATHOGEN PREVENTION AND TREATMENT FOR WARMWATER MARINE
FINFISH: WE NEED MORE ARROWS IN THE QUIVER!
Jennica Hawkins, Ocean Era
- 9:30** USE OF 35% HYDROGEN PEROXIDE IN THE MARINE ENVIRONMENT;
WORKING TOGETHER TO HELP SOLVE CHALLENGES IN THE DRUG
APPROVAL PROCESS
Pam Sponholtz, Shane Ramee, Paige Maskill, USFWS AADAP
Jenn Kishimori, VetMed Aquatic
- 9:45** IS IT AN ANIMAL DRUG OR AN ANIMAL FOOD?
Emily Cornwell, FDA CVM
- 10:00** **BREAK**
- 10:30** LESSONS LEARNED FROM TREATING FISH IN RECIRCULATING SYSTEMS
Alan Johnson, Iowa DNR
- 10:45** EFFICACY OF EUGENOL (AQUI-S 20-E®) TO LIGHTLY SEDATE FLORIDA
LARGEMOUTH BASS *Micropterus salmoides* AT DIFFERENT BIOMASS
DENSITIES FOR AN EXTENDED PERIOD OF TIME
Shawn Coyle, Kaitlyn O'Neil, FL FWC
- 11:00** EFFICACY OF EUGENOL (AQUI-S 20-E®) TO LIGHTLY SEDATE RED DRUM
Sciaenops ocellatus AND FLORIDA POMPANO *Trachinotus carolinus* AT
DIFFERENT BIOMASS DENSITIES FOR AN EXTENDED PERIOD OF TIME
Kaitlyn O'Neil, Shawn Coyle, FL FWC
- 11:15** UPDATE ON SPAWNING AID APPROVALS
Shane Ramee, USFWS AADAP
- 11:30** GROUP DISCUSSION

AQUACULTURE 101

Saturday, March 8 8:30 AM - 12:30 PM Balcony M

Chair: Paul Zajicek

- 8:30** FINDING AQUACULTURE FARMING INFORMATION
Herbert Quintero Fonseca, Program Director Aquaculture Extension, The Ohio State University
- 9:00** WHAT SKILLS DO MY EMPLOYEES NEED/WHERE DO I FIND EMPLOYEES?
Christian Brayden, Project Manager, Maine Aquaculture Association
- 9:30** FARM BUSINESS PLANNING
Shraddha Hegde, Assistant Professor and ACES Faculty Fellow, Texas A&M
- 10:00** **BREAK**
- 10:30** REGULATORY COMPLEXITY AND COSTS
Jonathan van Senten, Assistant Director, Virginia Seafood AREC, Virginia Polytechnic Institute and State University
- 11:00** AQUATIC ANIMAL HEALTH MANAGEMENT
Kathleen Hartman, Staff Veterinary Medical Officer, USDA APHIS Veterinary Services
- 11:30** IMPORTANCE OF STATE, REGIONAL AND NATIONAL REPRESENTATION
Paul Zajicek, Executive Director, National Aquaculture Association

GENERAL AQUACULTURE CONTRIBUTED 2

Saturday, March 8 8:30 AM - 10:00 AM Balcony L

Chair: Joy Terry

- 8:30** **Manpreet Kaur**, Konrad Dabrowski, Kevin Fisher, Sheryl Barringer
EFFECT OF REARING TEMPERATURE, GENDER, PRESENCE OF SKIN, FILLET LOCATION, FREEZING AND STORAGE ON THE VOLATILE PROFILE OF ATLANTIC SALMON *Salmo salar* USING SIFT-MS
- 8:45** **Razieh Farzad**, Rose Omidvar
CELL-CULTURED SEAFOOD AND FISH MEAL; PRODUCTION OVERVIEW AND THEIR FOOD SAFETY CHALLENGES
- 9:00** **Toheeb Falakin**, Anaboon Junlaprom, Cole Daleiden, Andre Rodriguez, Faith Ohwofasa, Sophia Okoh, Sagun Chhetri, Brandon Wright, Noel Novelo
KENTUCKY STATE UNIVERSITY UNITED STATES AQUACULTURE SOCIETY STUDENT SUBUNIT RECEIVE GRANT AWARD EMPOWERING STUDENTS IN FOOD HEALTH CERTIFICATION

- 9:15 Linas Kenter**, Jeroen Brijs, Albin Gräns
HUMANE KILLING MEETS INNOVATION: ASSESSING IMPACTS OF
SLAUGHTER METHODS ON FISH WELFARE AND PRODUCT QUALITY
- 9:30 Fátima Castro-Ochoa**, M. Del Pilar Sánchez-Saavedra
EFFECT OF FERMENTATION CONDITIONS ON PROTEIN CONTENT AND
ANTIOXIDANT CAPACITY OF MARINE MICROALGAE *Porphyridium cruentum*
FERMENTED WITH YEAST *Kluyveromyces marxianus*

**AQUATIC ANIMAL MODEL HUSBANDRY WORKSHOP
- CONTINUED**

Saturday, March 8 8:30 AM - 5:30 PM Salon H
Chair: Bobbi M. Baur

- 9:00 KILLIFISH: BRIDGING 100 YEARS OF RESEARCH TO HUMAN HEALTH**
Ben Dubansky, Louisiana State University
- 9:30 OPTIMIZING HUSBANDRY FOR DEVELOPMENT OF THE MEXICAN
CAVEFISH (*ASTYANAX MEXICANUS*) AS A GENETIC MODEL**
Katie Gallman, Texas A&M University
- 10:00 ADVANCES IN CRYOPRESERVATION PROTOCOLS**
Zoltan Varga, ZIRC
- 10:00 BREAK**
- 11:00 CHARTING THE WATERS: A COMPARATIVE DIVE INTO CENSUS
DATABASES FOR AQUATIC RESEARCH MODELS**
Lauren Krug, Aquaneering
- 11:30 HOW TO PROPERLY PREPARE YOUR RICE ... FISH**
McKenna Martin, Boston Children's Hospital
- 12:00 POPULATION VARIATION IN HUSBANDRY NEEDS FOR THREESPINE
STICKLEBACK**
Holly Valentine, UConn
- 12:30 LUNCH**
- KEYNOTE SPEAKER**
- 1:30 ESTABLISHING A NEW MODEL, *Danionella cerebrum*, FOR NERVOUS
SYSTEM REGENERATION RESEARCH**
Kutay Deniz Atabay, MIT

- 2:30 AQUATIC RESEARCH ORGANISMS AT THE STOWERS INSTITUTE: CARING FOR PLANARIA AND BEYOND**
Shane Miller, Stowers Institute
- 3:00 Petronella Kettunen**, Alexis Buatois, Fionn Stoltenberg, Jonathan A.C. Roque
PACKING AND TRANSPORT OF ADULT ZEBRAFISH CAUSE BOTH ACUTE AND LONG-TERM ELEVATED WATER CORTISOL LEVELS
- 3:30 BREAK**
- 4:00 OPPORTUNITIES IN LAND-BASED, INLAND SEA URCHIN CULTURE**
Katie Gibbs, Steve Watts, University of Alabama Birmingham
- 4:30 TBA**
- 5:00 TOWN HALL MEETING** (*The Town Hall Meeting is sponsored by Aquaneering*)

PHYSIOLOGICAL INSIGHTS TOWARDS IMPROVING FISH CULTURE VII - CONTINUED

Saturday, March 8 8:30 AM - 3:30 PM Galerie 6

Chairs: Beth Cleveland, Adam Luckenbach, Peter Allen, Tim Bruce

- 8:30 Kate Pottle**, Darshika Udari Hettiarachchi, Mei Shang, Nadeen Abdo, Dhanuka Bambaranda, Ahmed Shaaban, Baofeng Su, Misha Soman, Hamza Dilawar, Ian Butts, Rex Dunham
EFFECT OF DONOR CELL TYPE ON CHANNEL CATFISH *Ictalurus punctatus* XENOGEN PRODUCTION
- 8:45 Erin Legacki**, Mark Polinski, Demitri Lifgren, Monica Noyes, Brian Peterson
STEROIDOGENESIS IN FEMALE ATLANTIC SALMON *Salmo salar* TISSUE AT TIME OF OVULATION
- 9:00 Samitha S.N. Liyanage**, Brian G. Bosworth, Kaylan A. Martin, Kyle R. Wood, Alexandra Nowicki, Jason W. Abernathy, Nithin M. Sankappa, Benjamin H. Beck, Timothy J. Bruce, Matthew K. Litvak, Rex A. Dunham, Luke A. Roy, Ian A.E. Butts
AGE RELATED REPRODUCTIVE PERFORMANCE IN MALE BLUE CATFISH *Ictalurus furcatus*
- 9:15 Hilla Turbowicz**, Yonathan Zohar, Nilli Zmora
EXPLORING PLASMID-BASED HORMONAL TREATMENT TO INDUCE PUBERTY IN LATE-MATURING FEMALE FISH

- 9:30 Konrad Dabrowski**, Kevin Fisher, Zakir Hussein, Manpreet Kaur, Sheryl Barringer, Rachel Cole, Martha Belury
ATLANTIC SALMON MATURATION UNDER IMPACT OF TEMPERATURE AND LIGHT REGIMES – PRELIMINARY STUDIES IN SMALL RECIRCULATION SYSTEM
- 9:45 Benjamin J. Reading**, Linnea K. Andersen, Cara Kowalchyk, Jin Namgung, Yuji Mushiobira, Takashi Todo, Naoshi Hiramatsu
VITELLOGENESIS IN FISHES
- 10:00 BREAK**
- 10:30 Jamie Mankiewicz**, Edward S. Hayman, William T. Fairgrieve, J. Adam Luckenbach
TRIPLOID SABLEFISH *Anoplopoma fimbria* DISPLAY INHIBITION OF FEMALE REPRODUCTIVE DEVELOPMENT AND SKEWED SEX RATIOS THROUGH SEX REVERSAL OF GENETIC MALES
- 10:45 Greg Weber**, Hao Ma, Jill Birkett, Vibha Tripathi, Yniv Palti, Tim Leeds
MATERNAL TRANSCRIPT PROFILES ASSOCIATED WITH EGG VIABILITY IN RAINBOW TROUT *Oncorhynchus mykiss*
- 11:00 Fabio Casu**, Tracey Schock, Amanda Bayless, Nathan Mahynski, Ashley Boggs
NMR-BASED METABOLOMICS AND MACHINE LEARNING FOR REPRODUCTIVE BIOMARKER DISCOVERY IN ATLANTIC SALMON *Salmo salar*
- 11:15 Azin Mohagheghi Samarin**, Swapnil G. Waghmare, Fabian Schumacher, Burkhard Kleuser, Trine K. Dalsgaard, Marianne Danielsen, Hanne S. Møller, Tomas Policar, Azadeh M. Samarin
EPIGENETIC MODIFICATIONS ASSOCIATED WITH OOCYTE AGEING IN COMMON CARP *Cyprinus carpio*
- 11:30 Adam Luckenbach**, Edward Hayman, William Fairgrieve
OPTIMIZING NEOMALE BROODSTOCK PRODUCTION FOR ALL-FEMALE SABLEFISH AQUACULTURE
- 11:45 Andre P. Seale**, Fritzie T. Celino-Brady, G.H.T. Malintha, Ryan J.A. Chang, Ke Cao, Takehiro Tsukada, Marty K.S. Wong, Jason P. Breves
TIGHT JUNCTION, HYPERPLASIA, AND IMMUNE/STRESS RESPONSE RELATED GENES ARE MODULATED IN MOZAMBIQUE TILAPIA EXPOSED TO TIDALLY-CHANGING SALINITIES
- 12:00 Abigail V. Concannon**, Amber F. Garber, William D. Robertson, Tillmann J. Benfey
OSMORESPIRATORY COMPROMISE IN TRIPLOID RAINBOW TROUT *Oncorhynchus mykiss*

- 12:15 Jesse Trushenski**
MANAGING SMOLTIFICATION FOR IMPROVED OUTCOMES FOR ANADROMOUS FISH
- 12:30 LUNCH**
- 1:30 Kashyap Adhikari**, Tiluttom Bhattacharjee, Fatin Fahim, Sujan Bhattarai, Yathish Ramena, Ram Babu Kurapati, Amit Sinha
EXPLORING “STRESS MEMORY” IN FISH FARMING: A NEW APPROACH TO ENHANCE CATFISH RESISTANCE AGAINST ELEVATED AMMONIA
- 1:45 Mar Huertas**
WE ARE GRASPED BY WHAT WE CANNOT GRASP: THE HIDDEN PHYSIOLOGICAL EFFECTS OF LONG-TERM EXPOSURE TO NITRITES IN FINFISH
- 2:00 Magaleate Kostelnik**, Paul Wills, Sahar Mejri, Bing Ouyang
EFFECTS OF HYPOXIA ON EARLY DEVELOPMENT AND LIPID UTILIZATION IN AQUACULTURE SPECIES: FLORIDA POMPANO *Trachinotus carolinus* AND RED DRUM *Sciaenops ocellatus*
- 2:15 Javier Alonso Carrillo Longoria**, Gibson Gaylord, Jacob Bledsoe, Madison Powell
PHYSIOLOGICAL RESPONSES OF CHRONIC THERMAL STRESS OF ARCTIC GRAYLING *Thymallus arcticus* JUVENILES
- 2:30 Shah Sumaiya Khaled**, Elena Deng, Ahmed Mustafa
IMPACT OF PHYTOCHEMICAL SUPPLEMENTS ON THE MODULATION OF STRESS FACTORS IN FISH CULTURED IN FARMING CONDITIONS
- 2:45 Yoonhang Lee**
MECHANISMS UNDERLYING PROBIOTIC EFFECTS ON NEUROTRANSMISSION AND STRESS RESILIENCE IN FISH VIA TRANSCRIPTOMIC PROFILING
- 3:00 Russell J. Borski**, Jamie L. Mankiewicz, Courtney A. Deck, William F. Lee Jr.
LEPTIN REGULATION OF METABOLISM AND ITS IMPLICATIONS IN THE ADAPTIVE STRESS RESPONSE IN TILAPIA *Oreochromis mossambicus*
- 3:15 Peter Allen**, Tibor Pechan, Olga Pechanova, Claudio Alvarez
EVALUATION OF MUCUS PEPTIDES, BLOOD AND TISSUE PROTEINS, AND CLASSICAL HORMONE MEASURES FOR ASSESSING ENVIRONMENTAL STRESSOR RESPONSES IN TWO CULTURED FISH SPECIES

MANGROVE SHELLFISH

Saturday, March 8 8:30 AM - 5:30 PM Studio 7

Chairs: Acacia Alcivar-Warren, Caroline DeWitt

- 8:30 Acacia Alcivar-Warren**, Caroline DeWitt
MANGROVE SHELLFISH: FROM CARBON STORAGE TO EPIGENETICS – RECOGNITION TO STUDENTS AND “2025 OUTSTANDING ONE HEALTH RESEARCHERS IN AQUACULTURE AND FISHERIES” AWARDEES
- 8:45 Daniel Friess**
BLUE CARBON AND OTHER ECOSYSTEM SERVICES IN MANGROVE FORESTS
- 9:15 Brenda Rodriguez-Flores**, Miriam Alcivar-Arteaga, Acacia Alcivar-Warren
THE MANGROVE EPIGENOME (MangroveENCODE) PROJECT OF THE FUCOBI FOUNDATION OF ECUADOR: A ONE HEALTH APPROACH TO CONSERVING MANGROVES BIODIVERSITY AND AVOID CLIMATE DISASTER
- 9:30 Christopher Puttock**
WHAT IS ROTARY AND HOW DOES ROTARY WORK FOR SHELLFISH?
- 10:00 BREAK**
- 10:30 Fiorela Campos**, Jorge Echevarria-Velásquez, Jorge Echevarria-Flores, Acacia Alcivar-Warren
STATUS OF THE MANGROVE FORESTS OF TUMBES, PERU IN 2024
- 10:45 Jorge Oswaldo Echevarria-Flores**, Jorge Echevarria-Velásquez
HEAVY METALS IN MANGROVE SEDIMENT AND NATIVE SPECIES FROM THE GENUS ANADARA sp. AND PENAEUS sp.
- 11:00 Zhili He**, Xiaoli Yu, Lu Qian, Qingyun Yan
RHIZOSPHERE SULFUR OXIDIZING COMMUNITIES DOMINATE PLANT-MICROBE INTERACTIONS IN MANGROVE ECOSYSTEMS
- 11:15 Freddy Nicasio Aveiga-Argandona**, Miriam Alcivar-Arteaga, Jhonny Alcivar-Arteaga, Keith Astrofsky, Fernando Aveiga-Alcivar, Caleb McClennen, Randi Henry, Sofia Figueroa, Daniela Espinosa, Monica Arteaga-Cedeno, Acacia Alcivar-Warren
TRACE METAL LEVELS IN MUSCLE OF SHRIMP *Penaeus vannamei* FROM ECUADOR AND EL SALVADOR, AND *P. monodon* FROM THE PHILIPPINES
- 11:30 Andrée De Cock**, Luis Domínguez-Granda, Peter Goethals
A ONE HEALTH ANALYSIS OF ESTUARINE POLLUTANTS AFFECTING MANGROVE CRABS AND RELATED CONSUMERS IN ECUADOR

SATURDAY

- 11:45 Alfredo Quarto**
WHAT IS MEANT BY “MANGROVE FRIENDLY AQUACULTURE”?
- 12:30 LUNCH**
- 1:30 Thomas Uboldi**, Nathalia Byrro-Gauthier, Guillaume Bridier, Youenn Jézéquel, David Drolet, Julien Pettré, Rejean Tremblay, Frédéric Olivier, Laurent Chauvaud
SOME DON'T LIKE IT NOISY: SHIPPING NOISE ALTERS THE BEHAVIOUR AND HABITAT USAGE OF WAVED WHELK *Buccinum undatum* (Gastropoda)
- 1:45 Godfrey Ouma Makokha**, Richard Mzungu, Esther Fondo, Mika Siljander, Elizabeth Mueni, Benedict Kiilu
DISTRIBUTION, POPULATION STRUCTURE, AND FISHERY POTENTIAL OF THE GOLDEN DEEP-SEA CRAB *Chaceon somaliensis* IN THE KENYAN COAST IN EAST AFRICA
- 2:00 Muntasir Mamun**, Shamima Akhter
TRASH TO TREASURE: HARNESSING LOCAL RESILIENCE TO COMBAT GHOST NETS IN BANGLADESH
- 2:15 Hectorina Rodulfo**, Acacia Alcivar-Warren, Marcos De Donato
A TRANSPOSABLE ELEMENT–EPIGENETICS ONE HEALTH PERSPECTIVE TO UNDERSTAND ANTIMICROBIAL RESISTANCE (AMR) AND CONTAMINATION BY ENDOCRINE DISRUPTING CHEMICALS (GLYPHOSATE, METALS), MICROPLASTICS, BIS(2-ETHYLHEXYL) PHTHALATE (DEPH), AND PER- AND POLY-FLUOROALKYL SUBSTANCES (PFAS): ADAPTATION TO GLOBAL AND CLIMATE CHANGE
- 2:30 Jianbo Yuan**, Chuntao Zhang, Roujing Li, Zhanyuan Yang, Man Luo, Xiaoyun Zhong, Jie Hu, Shuqing Si, Xiaojun Zhang, Fuhua Li
INTEGRATION OF CHROMATIN ACCESSIBILITY AND GENE EXPRESSION IDENTIFIES OSMOREGULATION-RELATED TRANSCRIPTION FACTORS IN PENAEID SHRIMP
- 2:45 Caroline Acacia Warren**, Jennifer Warren, Miriam Alcivar-Arteaga, Acacia Alcivar-Warren
SHRIMP SCAMPI: A CITIZEN SCIENCE PROJECT – EDUCATING ABOUT MICROBES AND ENDOCRINE DISRUPTING CHEMICALS LIKE GLYPHOSATE USING FOLDSCOPIES
- 3:00 Acacia Alcivar-Warren**
TAXONOMY OF SHELLFISH FOLLOWS THE CLASSIFICATION BY THE WORLD REGISTER OF MARINE SPECIES (WORMS) FOR PENAEUS SPECIES, ONLY *Penaeus vannamei* (BOONE, 1931) IS ACCEPTED – *Litopenaeus vannamei* IS NOT ACCEPTED

- 3:15 Gober Asuncion**, Acacia Alcivar-Warren, Laura Urdes, Mayra Galindo, Miriam Alcivar-Arteaga
WELFARE IN SHRIMP *Penaeus vannamei*: EYESTALK ABLATION, SENTIENCE AND PAIN PERCEPTION – A REVIEW
- 3:30 Caroline DeWitt**
ENHANCING MARINE ECOSYSTEMS AND PROMOTING SUSTAINABLE AQUACULTURE: ESRAG's COMMITMENT TO A HEALTHIER PLANET
- 3:45 Caroline DeWitt**, Salvador Rico
WORKSHOP: HOW TO WRITE EFFECTIVE GLOBAL GRANTS TO APPLY FOR FUNDING FOR YOUR PROJECT BY ROTARY INTERNATIONAL

CLAMS

Saturday, March 8 8:30 AM - 2:00 PM Galerie 4

Chairs: Brian Beal, John Kraeuter

- 8:30 Olivia Cohn**, Nathan Otto, Roger Mann, Daphne Munroe
AN UNUSUALLY LARGE INDIVIDUAL OCEAN QUAHOG *Arctica islandica* L.
- 8:45 Marissa Bills**, Hunter Glanz, Benjamin Ruttenberg
ESTIMATING GROWTH RATES OF PISMO CLAMS *Tivela stultorum* ON PISMO BEACH, CALIFORNIA
- 9:15 Sean Bignami**, Fernando G. Campero, Kelly Stromberg, Emelyah Banzon, Desiree A. De La Riva, Diane Y. Kim, Nathan D. Churches, Nancy Caruso, Ian Jacobson
CLOSING THE LIFE CYCLE OF THE NATIVE CALIFORNIA CLAM *Tivela stultorum* FOR COMMERCIAL AQUACULTURE PRODUCTION
- 9:30 Michael Acquafredda**, Bassem Allam, Ximing Guo, Daphne Munroe
TESTING THE ABILITY OF ATLANTIC SURFCLAM SUBSPECIES (*Spisula solidissima solidissima* AND *S. s. similis*) TO HYBRIDIZE
- 9:45 Andrew Suhrbier**, Steven Booth, David Beugli
MANILA CLAM *Ruditapes philippinarum* POPULATION DECLINE IN WILLAPA BAY, WASHINGTON
- 10:00 BREAK**
- 10:30 Brandon Harris**, Paul Rawson, Dana Morse
DIVERSIFYING SHELLFISH AQUACULTURE: ESTABLISHING NURSERY REARING METHODS FOR RAZOR CLAMS *Ensis leei*
- 10:45 Erin Carpenter**, Nathan Otto, Roger Mann
GROWTH OF *Mercenaria campechiensis* FROM OFFSHORE VIRGINIA

- 11:00 Paul McDonald**, Jayme Yee, Huiping Yang
GENETIC PARAMETERS FOR SALINITY STRESS TOLERANCE IN
NORTHERN QUAHOGS *Mercenaria mercenaria*
- 11:15 Huiping Yang**, Leslie Sturmer, Yangqing Zeng, Jayme Yee, Paul McDonald
PERFORMANCE OF F1 GENERATIONS FROM HEAT SHOCK SURVIVORS OF
NORTHERN QUAHOGS *Mercenaria mercenaria*
- 11:30 Michael H. Doall**, Timothy P. Curtin, Brooke K. Morrell, Christopher J. Gobler
EVALUATING STOCK ENHANCEMENT METHODS FOR HARD CLAMS
Mercenaria mercenaria AND EASTERN OYSTERS *Crassostrea virginica* IN A
RECRUITMENT-LIMITED TEMPERATE LAGOON
- 11:45 Hannah Brunelle**, Ming Liu, Allison M. Tracy
A SHELL SHOCKING STORY: SOFT SHELL CLAMS *Mya arenaria* IN THE
CHESAPEAKE BAY
- 12:00 Natalia J. Schoenberg**, Kathleen E. Knick, Michael S. Seebo, Rochelle D. Seitz
THE EFFECT OF PREDATOR REMOVAL AND CAGE DISTURBANCE ON THE
GROWTH AND SURVIVAL OF PLANTED SOFT-SHELL CLAMS *Mya arenaria*
- 12:15 Juan Gabriel Correa-Reyes**, Cesar Omar Rodriguez-Arana,
Cordero Esquivel, Tatiana N. Olivares-Bañuelos, Ramiro Hernandez-Garcia
GROWTH AND SURVIVAL OF CLAM *Chione cortezi* CULTURED IN
RECIRCULATION AQUACULTURE SYSTEMS (RAS) AT DIFFERENT
TEMPERATURES AND CULTURE DENSITIES
- 12:30 LUNCH**
- 1:30 Jeff Clements**, Sarah Harrison, Mylène Roussel, Jillian Hunt, Brooke-Lyn Power,
Rémi Sonier
EXTREME SUMMER HEATWAVES DRAMATICALLY INCREASE INDIRECT
SOFT-SHELL CLAM FISHING MORTALITY VIA SHIFTS IN PREDATOR-PREY
DYNAMICS
- 1:45 Jeff C. Clements**
DYNAMIC SHIFTS AND A DRASTIC DECLINE IN REPORTED LANDINGS FOR
THE SOUTHERN GULF OF ST. LAWRENCE COMMERCIAL CLAM FISHERY
OVER THE PAST TWO DECADES
- 2:00 Brian Beal**, Tessa Houston, Sara Randall
EFFECTS OF REGION, TIDAL HEIGHT, SEASON, AND CLAM SIZE ON
FECUNDITY OF THE SOFT-SHELL CLAM *Mya arenaria* L. IN MAINE, USA
- 2:15 Paul Coyne**, Ximing Guo
ATTEMPTS TO INDUCE POLYPLOIDY IN HARD CLAM *Mercenaria mercenaria*

OYSTERS – CONTRIBUTED 1

Saturday, March 8 8:30 AM - 5:30 PM Salon E

Chairs: Bill Fisher, Jessica Pruett

- 8:30 Cristian Monaco**, Manaarii Sham-Koua, Erwan Vigouroux, Ameline Orts, Jérémy Benhamou, Edith Vidal, Oriane Chevalier, Caline Basset, Corinne Falchetto, Julie Fievet, Julien Rouxel, Guillaume Mitta, Yann Dorant
COMPARING THE AQUACULTURE POTENTIAL OF TWO TROPICAL ROCK-OYSTER SPECIES
- 8:45 Giuseppe Esposito**, Simone Peletto, Ximing Guo, Paolo Pastorino, Pier Luigi Acutis, Domenico Meloni, Paola Modesto, Marino Prearo
GENETIC DIVERSITY IN SARDINIAN COASTAL ECOSYSTEMS (ITALY, MEDITERRANEAN SEA): PERSPECTIVES ON *Ostrea* spp. (BIVALVIA: OSTREIDAE)
- 9:00 Chris Langdon**, Claudio de Melo, Konstantin Divilov, Noah Merz, Neil Thompson
DEVELOPMENT OF A NEW KUMAMOTO OYSTER BREEDING POPULATION BASED ON INDIVIDUALS COLLECTED FROM THE ARIAKE SEA, JAPAN, IN 2006
- 9:15 Lauren Vandepas**, Edward Hayman, Bernarda Calla, Adam Luckenbach, Steven Roberts, Mackenzie Gavery
TRANSCRIPTOMICS AND FUNCTIONAL ASSAYS INFORM HEMOCYTE IMMUNE RESPONSE IN PACIFIC OYSTER
- 9:30 Jingwei Song**, Michael Banks, Bernarda Calla
“GENDER REVEAL” FOR OYSTERS? AN INVESTIGATION OF EARLY SEX DETERMINATION MECHANISMS IN PACIFIC OYSTERS *Magallana gigas*
- 9:45 Craig Norrie**, Shallin Busch, Jonathan Davis, Paul McElhany, Jacqueline Padilla Gamiño
DIFFERENTIAL PERFORMANCE OF DIPLOID, MATED TRIPLOID, AND INDUCED TRIPLOID PACIFIC OYSTERS UNDER VARIED ENVIRONMENTAL CONDITIONS: INSIGHTS INTO IMPACTS OF TEMPERATURE, DISSOLVED OXYGEN, AND pCO_2
- 10:00 BREAK**
- 10:30 Thomas Kiffney**, Paul Rawson, Romain Lavaud, Gary Wikfors, Damian Brady
CULTURE PERFORMANCE AND PHYSIOLOGY OF TRIPLOID EASTERN OYSTERS IN MAINE
- 10:45 Brandon Feole**, Jerome La Peyre, Emmanuelle Espinosa, Bassem Allam
CHARACTERIZATION OF HEMOCYTES FROM DIPLOID AND TRIPLOID EASTERN OYSTERS *Crassostrea virginica* WITH A FOCUS ON PROTEIN CONTENT AND ENERGETICS

- 11:00 John Irwin**, Scott Rikard, Andrea Tarnecki, James Stoeckel, Hisham Abdelrahman
THERMAL TOLERANCE OF OYSTERS *Crassostrea virginica* SELECTED FOR INCREASED GROWTH AND TOLERANCE TO Dermo DISEASE
- 11:15 Mason Williams**, Scott Rikard, Sandra Casas, Jenny Ngo, Jerome La Peyre, Zhenwei Wang, Ximing Guo, Andrea Tarnecki, David Bushek
PRODUCTION AND FIELD EVALUATION OF EASTERN OYSTERS *Crassostrea virginica* GENOMICALLY SELECTED FOR ENHANCED GROWTH AND Dermo RESILIENCE FOR COASTAL BREAKWATER RESTORATION
- 11:30 Kate Gomez-Rangel**, Joseph Matt, Christopher Hollenbeck, Keisha Bahr
INVESTIGATING GROWTH POTENTIAL AND FERTILIZATION RATE OF HYBRID EASTERN OYSTERS IN TEXAS
- 11:45 Zophia Galvan**, Ian A.E. Butts, Andrea M. Tarnecki, F. Scott Rickard
MATERNAL EFFECTS AND EGG QUALITY BIOMARKERS IN EASTERN OYSTER *Crassostrea virginica*
- 12:00 Stephanie Alexander**, Jeffrey Alexander, Robert Carey, Alicia Klages, Michael Nossick, Shane Simms, Stacey Spicer, Julie Trommutter
IMPROVEMENT OF EASTERN OYSTER *Crassostrea virginica* SPAWNING PERFORMANCE UTILIZING INNOVATIVE METHODS
- 12:15 Jasmine Hall**, Reginald Blaylock, Megan Gima
OPTIMIZATION OF WATER QUALITY PARAMETERS FOR SURVIVAL AND GROWTH OF EASTERN OYSTER *Crassostrea virginica* LARVAE IN CULTURE
- 12:30 LUNCH**
- 1:30 Jessica Pruett**, Alexz Carpenter, Christian Boudreaux, Kristine Willett, Deborah Gochfeld
THE EFFECTS OF CHEMICAL INDUCERS ON LARVAL SETTLEMENT BEHAVIOR AND METAMORPHOSIS IN THE EASTERN OYSTER *Crassostrea virginica*
- 1:45 Sarah Bodenstein**, Christian Ennis, Mark C. Herpin, Zachary James, Jackson Knox, Austin C. Louque, Alex P. Mensen-Johnson, Sunella A. Ramnath, Gowri P. Sunkara, Angel S. Wilson, Nadejda Drenska, Peter R. Wolenski, Elizabeth M. Robinson
DEVELOPING A QUALITY MANAGEMENT PACKAGE FOR RECORDKEEPING IN AN OYSTER NURSERY
- 2:00 Taofeek Jimoh**, Auden Grant, John Carroll, Jennifer Zettler, Anthony Siccardi
EVALUATION OF ALGAL TURF SCRUBBER BIOMASS AS A FEED SOURCE FOR JUVENILE EASTERN OYSTERS *Crassostrea virginica*

- 2:15 Jayme C. Yee**, Huiping Yang
CRYOPRESERVATION OF *TETRASELMIS* SPECIES: DEVELOPMENT OF VIABILITY ANALYSIS AND PROTOCOL APPLICATION ACROSS SIX SPECIES
- 2:30 Kelsey Wells**, Paul Rawson
PICKY EATERS, RAPID GROWERS: ASSESSING PHENOTYPIC PLASTICITY OF THE EASTERN OYSTER *Crassostrea virginica* IN DIVERSE MAINE ESTUARIES
- 2:45 Thomas Kiffney**, Romain Lavaud, Binbin Jiang, Emmanuel Boss, Marouan Bouali, Gustavo Nagel, Damian Brady
FARM SCALE INSIGHTS: PREDICTING OYSTER GROWTH IN NEARSHORE ENVIRONMENTS
- 3:00 Fiona Boardman**, Jennifer Ruesink, Katie Houle, Emma Beck, Andy Suhrbier, Bobbi Hudson
INTERTIDAL GROW-OUT TECHNIQUE, NOT EELGRASS *Zostera marina*, INFLUENCES PERFORMANCE OF PACIFIC OYSTERS
- 3:15 Ima Hosseinzadeh**, William Walton, Julianne Grenn, Nicole Millette
INFLUENCE OF OYSTER DENSITY AND BIOFOULING ON CHL-A CONCENTRATION AND PHYTOPLANKTON COMMUNITY IN OYSTER AQUACULTURE BAGS
- 3:30 Hollis Jones**, Cassidy Cooper, Anne Todgham
AIR PRIMING AS A MANAGEMENT TOOL FOR TRANSITIONING HATCHERY PRODUCED OYSTERS TO THE INTERTIDAL ZONE
- 3:45 Emily Reynolds**, Brenda Konar, Daniel Monson, Lara Horstmann
SEA OTTER INTERACTIONS WITH OYSTER FARMS
- 4:00 Chelsea Fowler**, Matthew Gray, Louis Plough
THE EFFICACY OF STRESS PRIMING AS A TACTIC FOR INCREASING STRESS RESILIENCY OF JUVENILE EASTERN OYSTERS *Crassostrea virginica*
- 4:15 Arthur J. Mabaka**, Michael Doall, Christopher Gobler
USING CHEMICAL CUES RELEASED BY BLUE CRABS TO CREATE MORE PREDATOR-RESISTANT OYSTER SEED THROUGH CHEMICALLY-INDUCED MORPHOLOGICAL CHANGES
- 4:30 Delbert Lee Smee**, Christa Russell, Jessica Lunt, Randi Cannon, Benjamin Belgrad, Sarah Rogers, Marisa Cepeda, Benton Jaco, Julia Kubanek, Marc Weissburg
SCARED STRONG: USING PREDATOR CUES TO BOLSTER OYSTER RESTORATION AND AQUACULTURE

4:45 John Stieglitz, Isaac Tetel, Eva Dickie, Lily Zimmerman, Ronald Hoenig, Marjorie Oleksiak
RESTORATIVE AQUACULTURE IN SOUTH FLORIDA: USING OYSTERS IN INNOVATIVE NATURE-BASED SOLUTIONS TO RESTORE BISCAYNE BAY AND IMPROVE COASTAL RESILIENCE

MACROALGAE AQUACULTURE: SUPPORTING A SUCCESSFUL SEAWEED SECTOR

Saturday, March 8 8:30 AM - 5:30 PM Balcony J
Chairs: Anoushka Concepcion, Melissa Good, Simona Augyte

- 8:30 Anoshka Concepcion**
THE POTENTIAL OF SEAWEED
- 8:35 Danielle Blacklock**
UNLOCKING THE POTENTIAL OF SEAWEED: NOAA'S CONTRIBUTIONS TO A SUSTAINABLE U.S. AQUACULTURE INDUSTRY
- 9:00 Jordan Hollarsmith**
OPPORTUNITIES AND CHALLENGES FOR ALASKA KELP AQUACULTURE
- 9:15 Angela Korabik**, Alix Laferriere
THE SUCCESSES AND CHALLENGES OF GROWING BULL KELP IN ALASKA
- 9:30 Jaclyn Robidoux**
MAINE'S SEAWEED SECTOR: INSIGHTS FOR SEAWEED FARMING IN THE U.S.
- 9:45 David Bailey**, Sam Garwin, Lindsay Olsen
THE DEVIL'S IN THE DETAILS: ADDRESSING THE PRACTICAL LIMITATIONS HOLDING BACK THE KELP FARMING INDUSTRY
- 10:00 BREAK**
- 10:30 Julianne Grenn**, William Walton
SEA LETTUCE *Ulva* spp. AND OYSTER CO-CULTURE: A POTENTIAL CLIMATE CHANGE MITIGATION STRATEGY FOR OYSTER FARMERS
- 10:45 Simona Augyte**, Bradley Fox, Jennica Lowell Hawkins, Neil Sims
LAND-BASED CULTIVATION OF RED MACROALGAE IN HAWAII
- 11:00 Kalani Ortiz**, Jennifer Smith, Norm Abel, Rebecca Richards
CULTIVATING SEAWEEDS IN SOUTHERN CALIFORNIA FOR SUSTAINABLE CULINARY USES

- 11:15 Andrew Kim**, Daniel Gossard, Lucie Gaw, Jess Franks, Scott Hamilton, Rafael Cuevas-Urbe, Phillip Tahimic, Matthew Edwards, Jacob Ogawa, Ashleigh Palinkas, Theresa Talley, Michael Graham
CLASH (CORE-LIT APPARATUS FOR SEAWEED HATCHERIES):
AN ALL-IN-ONE MODULAR SEAWEED HATCHERY SYSTEM
- 11:30 Jennica Lowell Hawkins**, Simona Augyte, Craig Nelson, Neil Anthony Sims
THE AFFECT OF NUTRIENT SOURCE ON GROWTH RATE, PROXIMATE COMPOSITION, AND BACTERIAL COMMUNITY IN SEVERAL SPECIES OF TROPICAL MACROALGAE GROWN IN LAND-BASED CULTURE SYSTEMS
- 11:45 Michael Ciaramella**, Jennifer Perry, Amanda Shore, Catherine Janasie, Stephanie Otts, Indu Upadhyaya, Brian Himelbloom, Razieh Farzad, Christina DeWitt, Anoushka Concepcion
SEAWEED FOOD SAFETY: DRAFTING A HAZARDS AND CONTROLS GUIDE
- 12:00 Sharon Palmer**, Chris Vogliano, Sherene Chou, Kate Geagan
HARNESSING THE NUTRITIONAL POWER OF SEAWEEDS AND BIVALVES:
TRANSFORMING DATA INTO DELICIOUS STRATEGIES FOR BOOSTING CONSUMPTION
- 12:15 Brian Donovan**, Jonathan van Senten, Rafael Cuevas Uribe
AN ECONOMIC AND PRODUCTION ANALYSIS OF SEAWEED FARMERS IN CALIFORNIA AND THE PACIFIC NORTHWEST
- 12:30 LUNCH**
- 1:30 Arthur Veremchuk**, Gregory Rorrer
EFFECTS OF FLUID VELOCITY ON CO₂ UPTAKE RATE BY THE RED SEAWEED *Agarophyton vermiculophyllum*
- 1:45 Nichola Dyer**, Abegail Anderson
SEAWEED AND ITS MULTIFACETED IMPACT ON WOMEN, THROUGH LENSES OF FOOD SECURITY, ENVIRONMENTAL SUSTAINABILITY, TRADE, AND ECONOMIC DEVELOPMENT
- 2:00 Samuel Chan**, Gregg Rorrer, Hamzah Alzanbaki, Arthur Veramchuk, Rainey Campbell, Emily Hicks, Yuri Sokolov
THE RED SEAWEED LEARNING COLLABORATIVE: EXTENSION ENHANCING RESEARCH IMPACT
- 2:15 Tammy Warner**, Robert Pomeroy
DEMONSTRATION: BUSINESS AND ECONOMIC PLANNING FOR SEAWEED AQUACULTURE SYSTEMS IN THE UNITED STATES

2:30 Diego Valderrama
PRELIMINARY TESTING OF A LIFE CYCLE ASSESSMENT (LCA) USER-FRIENDLY TOOL TO INTEGRATE ECOSYSTEM SERVICES INTO BUSINESS AND ECONOMIC PLANNING FOR SEAWEED AQUACULTURE

2:45 INTERACTIVE SESSION ON KELP

ADVANCES IN RAS - AES

Saturday, March 8 8:30 AM - 12:30 PM Galerie 3

Chairs: Steve Hall, Brian Vinci

8:30 Andrew Ray, John Stieglitz
OLIVE FLOUNDER *Paralichthys olivaceus* PERFORMANCE IN RAS

8:45 Steven Hall, Mike Frinsko, Eric Herbst, Benjamin Reading, Ryan Kelly, Christopher Pascual
ADVANCING DOMESTICATED STRIPED BASS *Morone saxatilis* LARVICULTURE USING RAS TECHNOLOGY

9:00 Bert Wecker
INDOOR LAND-BASED SHRIMP FARMING: AN INNOVATIVE FARMING APPROACH AS AN ALTERNATIVE TO POND FARMING

9:15 Jackson Kimle, Matthew Ellis
SHRIMP PRODUCTION IN ALGAE-BASED RECIRCULATING AQUACULTURE SYSTEMS (RAS)

9:30 Rakesh Ranjan, Gajanan Kothawade, Kata Sharrer, Scott Tsukuda, Chris Good
FILLET CAM 2.0: ENHANCED AI TOOL FOR COMPREHENSIVE FILLET QUALITY AND DEFECT ASSESSMENT

9:45 Abhinav Choudhury, Christine Lepine, Christopher Good
ANAEROBIC DIGESTION OF RAS WASTE: CURRENT STATUS AND RECENT DEVELOPMENTS

10:00 BREAK

10:30 Christopher Good, John Davidson, Christine Lepine, Natalie Redman, David Straus
INVESTIGATING RAS WATER DISINFECTION WITH LOW-DOSE PERACETIC ACID

10:45 John Davidson, Curtis Crouse, Christine Lepine, Megan Murray, Sarah Rice, Shanen Cogan, Scott Tsukuda, Julianna Stangroom, Jordan Poley, Christopher Good
OFF-FLAVOR PRODUCTION IN RAS: PROGRESS TOWARDS POTENTIAL SOLUTIONS

- 11:00 Matthew Stromberg**, Upal Ghosh, John Davidson, Yonathan Zohar
OBJECTIVE EVALUATION OF OFF-FLAVOR MITIGATION TECHNOLOGIES:
A MASS BALANCE APPROACH FOR INFORMED DECISION-MAKING
- 11:15 Josh Rosettani**, Marcia Chiasson, Wael Ahmed
ENGINEERED-AIRLIFT PUMPS CAN IMPROVE SUSTAINABLE OPERATION
OF RAS SYSTEMS
- 11:30 Michael Timmons**, Robert Abend
iMCR: A NEW PARADIGM IN RAS DESIGN
- 11:45 Joel Barraza**, Carlos Basulto, Macarena Morales, Camilo Merino, Juan Illanes,
Christopher Concha, Norma Pérez, German Merino
EVALUATION OF A NOVEL WATER TREATMENT TECHNOLOGY FOR BOD,
TSS AND PHOSPHOROUS REMOVAL
- 12:00 Cameron Cullens**
SELECTING THE RIGHT GAS MANAGEMENT TECHNOLOGY TO COMBAT
NITROGEN SUPERSATURATION

INTERNATIONAL ASSOCIATION OF AQUACULTURE ECONOMICS AND MANAGEMENT – ECONOMICS AND MARKETS - DAY 2

Saturday, March 8 8:30 AM - 5:30 PM Galerie 5

Chairs: Frank Asche, Shradda Hedge, Atle Oglend

- 8:30 Christian Brayden**, Richard Volpe, Sebastian Belle
ASSESSING A DECADE OF GROWTH: ECONOMIC IMPACTS OF
AQUACULTURE IN MAINE
- 8:45 Charles Clark**
HISTORICAL LANDINGS, SALES TRENDS, AND THE ECONOMIC OUTLOOK
OF THE VIRGINIA SHELLFISH AQUACULTURE INDUSTRY
- 9:00 José L. Fernández Sánchez**, José M. Fernández-Polanco, Ignacio Llorente,
Manuel Luna, Ladislao Luna Sotorrió
ECONOMIC EVOLUTION OF THE MARINE AQUACULTURE INDUSTRY IN
THE MAIN EU PRODUCERS AFTER THE COVID-19 PANDEMIC
- 9:15 Shraddha Hegde**, Carole Engle, Jonathan van Senten, Ganesh Kumar,
Gary Fornshell, Christine Ellis
ECONOMIC CONTRIBUTION OF THE U.S. SALMONID INDUSTRY
- 9:30 Daniel Petrolia**, Frank Asche, Matt Parker
AN ASSESSMENT OF THE U.S. OYSTER MARKET

- 9:45 Md Emran Hossain**, Madan Mohan Dey, Frank Asche,
Pratheesh Omana Sudhakaran
MARKET SALES AND DEMAND DYNAMICS OF OYSTERS IN THE USA:
EVIDENCE FROM RETAIL LEVEL SCANNER DATA
- 10:00 BREAK**
- 10:30 Frank Asche**, Bård Misund, Atle Oglend
MARGINS FOR FARMED SALMON
- 10:45 Daniel Petrolia**
IS DIRECT LOCAL MARKETING THE BEST STRATEGY IN EMERGING
HALF-SHELL OYSTERS MARKETS?
- 11:00 Pratheesh Omana Sudhakaran**, Abu Ahamed Sabbir, Pramod Kiran,
Neetha Susan David, Laurette Sadanandan
DETERMINING THE TECHNICAL AND ECONOMIC EFFICIENCY OF
TRADITIONAL SHRIMP AQUACULTURE IN INDIA
- 11:15 Adams Ceballos-Concha**, Andrew Ropicki, Frank Asche
MATCHING PROPERTY RIGHTS AND TRANSBOUNDARY ECOLOGICAL
PROCESSES: THE CASE OF THE NORWEGIAN SALMON INDUSTRY
- 11:30 Thomas M. Anderson**, James N. Sanchirico, Matthew N. Reimer
TOWARDS COST-EFFECTIVE REDUCTIONS IN ANTIBIOTIC USE IN SALMON
AQUACULTURE
- 11:45 Lijun Liu**
BEYOND THE CATCH: THE ROLE OF CLIMATE RISKS IN FISH TRADE
- 12:00 Petter Olsen**
SHOULD TRACEABILITY SYSTEMS IN THE AQUACULTURE INDUSTRY BE
BASED ON BLOCKCHAIN TECHNOLOGY?
- 12:15 Atle Oglend**, Frank Asche, Bård Misund, Ruth Pincinato
PROSOCIAL MANAGEMENT OF A PARASITE IN A FOOD PRODUCTION
NETWORK: EVIDENCE FROM SALMON LICE IN AQUACULTURE
- 12:30 LUNCH**
- 1:30 José Fernández Polanco**, Raquel Fernández-Gonzalez, Trond Bjørndal
PRICE DYNAMICS IN THE EUROPEAN MARKET OF FARMED TURBOT *Psetta*
maxima
- 1:45 Hans-Martin Straume**, Frank Asche, Atle Oglend
OUTWARD FDI IN NORWEGIAN SALMON EXPORT

- 2:00 Idowu Fasakin**, Ensendugue Fonsah, Omobowale Oni, Bolarin Omonona, Fatai Sowunmi
IMPACT OF INTEGRATED RICE-FISH SYSTEM ON RURAL FARMING HOUSEHOLDS' PROFITABILITY IN NIGERIA: AN ENDOGENOUS SWITCHING REGRESSION MODEL
- 2:15 Noah Boldt**, Ganesh Kumar, Jonathan van Senten
PLANNING FOR SUCCESS: INTERACTIVE FINFISH AND OYSTER BUSINESS MODEL TOOLS TO ENHANCE FARMER'S ECONOMIC AND FINANCIAL DECISION MAKING
- 2:30 Hugh Cowperthwaite**, Nicholas Branchina
FINANCING SMALL SCALE AQUACULTURE FARMS: A MODEL FROM MAINE
- 2:45 Oluwafunmilola Fapohunda**, Grace Akinbamido
VIABILITY OF HOMESTEAD FISH FARMING VENTURE IN ADO LOCAL GOVERNMENT OF NIGERIA
- 3:00 Dominique Lockhart**
SCALING EMERGING MARKETS: HOW THE VOLUNTARY CARBON MARKET AND THE MARKETS FOR NEXT GENERATION FEEDSTOCKS CAN EVOLVE AND CATALYZE CONCURRENT EXPANSION
- 3:15 Blair Morrison**, Henry Perkins
SPECIES, MARKETS, AND REGULATIONS, OH MY!: SCOPING MACROALGAE MARICULTURE IN COASTAL ALABAMA
- 3:30 Christopher Noren**, Sydney Avena, Struan Coleman, Matthew Gray, Damian Brady
WHICH CAME FIRST: THE SCALLOP OR THE SPAT? A BIOECONOMIC COMPARISON OF HATCHERY AND WILD SPAT COLLECTION FOR THE ATLANTIC SEA SCALLOP *Placopecten magellanicus*
- 3:45 Markose Zewdie**, Victor Tosin, Sunil Siriwardena, Akintola Latunji, Rodrigue Yossa, James Fasakin, Leila Basti
A MIXED STUDY ON THE IMPACTS OF THE AGGRESSIVE EXPANSION OF THE NIS WATER HYACINTH *Echhornia crassipes* ON AQUACULTURE IN NIGERIA
- 4:00 Zackary I. Johnson**
EXPANDING THE ROLE OF AQUACULTURE TO ADDRESS SOCIETY'S GRAND CHALLENGES
- 4:15 José Fernández Polanco**, José Luis Fernández Sánchez, Luciano Vilchez, Ignacio Llorente
PREFERENCES AND CONSUMPTION PATTERNS FOR SHRIMP *Pennaeus* spp. IN THE SPANISH MARKET

4:30 **Ganesh Kumar**, Lianqun Sun
FACTORS INFLUENCING U.S. CATFISH SUPPLY

4:45 **Gbolahan Shelika**
DIGITAL AQUACULTURE MARKETING AND ITS POTENTIAL FOR
AQUACULTURE GROWTH IN NIGERIA

GETTING IT RIGHT: CONSERVATION AQUACULTURE FOR RECOVERY, RESTORATION AND SUPPLEMENTATION

Saturday, March 8 8:30 AM - 2:30 PM Salon D
Chairs: Joel Bader, Ann Gannam, Kathleen Hartman,
Taylor Lipscomb, Kai Lorenzen, Josh Patterson

8:30 **Kai Lorenzen**, Hannah L. Harrison, Joy Hazell, Neil R. Loneragan, Seth M. White
THE 'ROUNDTABLE ON AQUACULTURE-AIDED FISHERIES ENHANCEMENT,
CONSERVATION, AND RESTORATION': DEFUSING AND ADVANCING THE
DIALOGUE ON HATCHERIES AND STOCKING PROGRAMS THROUGH
INNOVATIVE ENGAGEMENT AND COMMUNITY-BUILDING

8:45 **Maria Haws**, Karla J. McDermid, Rhiannon Chandler-Ṫao, Rosalyn Ku'uuleimomi
Dias Concepcion, Simon C. Ellis
PROGRESS AND CHALLENGES FOR RESTORATIVE AQUACULTURE IN
HAWAI'I AND THE U.S. AFFILIATED PACIFIC ISLANDS

9:00 **Desmond J. Maynard**
SALMON RANCHING MITIGATES THE NORTH PACIFIC ECOSYSTEM FOR
LOST SPAWNING AND REARING HABITAT

9:15 **Taylor Lipscomb**, Sarah Austing, Jennifer VonBargen, Laurie Earley,
Zachary Siders
THE USE OF CAPTIVE BROODSTOCK TO ACCELERATE THE
REINTRODUCTION OF AN ENDANGERED SACRAMENTO RIVER WINTER
RUN CHINOOK SALMON *Oncorhynchus tshawytscha* TO BATTLE CREEK,
CALIFORNIA

9:30 **Gibson Gaylord**, Matt Toner, Jacob Veilleux, Jeffrey Powell
EFFECT OF TOTAL DISSOLVED GAS PRESSURE ON CUTTHROAT TROUT
HATCH AND FRY SURVIVAL

9:45 **Joshua Patterson**, Aaron Pilnick
BUILDING A NETWORK FOR LONG SPINED SEA URCHIN *Diadema antillarum*
PRODUCTION AND DISTRIBUTION IN FLORIDA

10:00 **BREAK**

- 10:30 Robinson Bazarro**, Megan Davis, Raimundo Espinosa, Manuel Jove, Catherine Booker, Antony Johns, Shanna- Lee Thomas, Khianna Lee
THE INFLUENCE OF COASTAL WATER QUALITY ON THE SUCCESS OF MICROALGAE GROWTH AND QUEEN CONCH LARVAL DEVELOPMENT
- 10:45 Alexandra Good**, Kate Gomez-Rangel, Joseph Matt, Christopher Hollenbeck, Keisha Bahr
CHARACTERIZING TOLERANCE THRESHOLDS OF GENETICALLY DIVIDED EASTERN OYSTER *Crassostrea virginica* POPULATIONS IN TEXAS
- 11:00 Shelly Krueger**, Elizabeth Urban-Gedamke, Shirley Pomponi, Josh Patterson
SPONGE RESTORATION AQUACULTURE: REPRODUCTIVE VIABILITY FOLLOWING *IN SITU* PROPAGATION FOR 4 NEARSHORE SPONGIIDAE SPECIES IN THE FLORIDA KEYS
- 11:15 Shannon Hood**, Rod Braun, Lucian Chown, Garrett Goto, Joseph Smith, Dane Klinger
A RESTORATIVE APPROACH TO WHITELEG SHRIMP *Penaeus vannamei* AQUACULTURE
- 11:30 Julie Barber**, Courtney Greiner, Joe Williams, Jamie Donatuto, Melissa Poe, James McArdle, Lindy Hunter, Michal Heidt
MEASURING ECOLOGICAL CHANGE ON A NEWLY INSTALLED MODERN CLAM GARDEN
- 11:45 Rochelle Seitz**, Natalia Schoenberg, Kathleen Knick, Michael Seebo, Romuald Lipcius
RESTORATION AQUACULTURE FOR SOFT-SHELL CLAMS *Mya arenaria* IN VIRGINIA
- 12:00 Lucas Simon Torati**, Adriana F. Lima, Sérgio R. Batlouni, Velmurugu Puvanendran, Hervé Migaud, Luciana N. Ganeco-Kirschnik
ADVANCES TOWARDS THE CAPTIVE REPRODUCTION OF THE AMAZON *Arapaima gigas* (OSTEOGLOSSIDAE)
- 12:15 Benjamin Belgrad**, Christa Russell, Carter Lin, Randi Cannon, Jessica Lunt, P.J. Waters, Gary Dickinson, Delbert Smee
INDUCED DEFENSES: HOW CHANGES IN OYSTER SHELL MICROSTRUCTURE SHAPE ECOLOGICAL INTERACTIONS AND THE SUCCESS OF REEF RESTORATION EFFORTS
- 12:30 LUNCH**

- 1:30 Monica Fabra**, Stephanie Alexander, Olivia Caretti, Vyacheslav Lyubchich, Jason Spires, Matthew Gray, Elizabeth North
REMOTE SETTING AND HOLDING TIME OF OYSTER SPAT IN SETTING TANKS: EFFECT OF SPAT SIZE UPON DEPLOYMENT ON OYSTER SURVIVAL
- 1:45 Andre Rodriguez**, Noel Novello, Jeffrey Warner
CURRENT KNOWLEDGE AND METHODS OF STRAIN IDENTIFICATION OF WALLEYE *Sander vitreus*
- 2:00 Jacqueline Schlamp**, Maria Teresa Gutierrez-Wing
CRYOPROTECTANT SCREENING FOR HIGH THROUGHPUT MICROALGAL CRYOPRESERVATION
- 2:15 Tien-Chieh Hung**, Md Moshir Rahman
APPLICATION OF SPERM STUDIES FOR ENHANCING ENDANGERED SPECIES CULTURE, CONSERVATION, AND REPRODUCTIVE SUCCESS

APPRENTICESHIPS, INTERNSHIPS AND OTHER WORKFORCE DEVELOPMENT PROGRAMS FOR THE AQUACULTURE COMMUNITY

Saturday, March 8 8:30 AM - 5:30 PM Studio 9

Chairs: Danny Badger, Christian Bryden, Razieh Farzad, Jaclyn Robidoux, LaDon Swann

- 8:30 Jaclyn Robidoux**, Sebastian Belle, Nick Branchina, Hugh Cowperthwaite, Chris Davis, Annie Fagan, Teresa Johnson, Anne Langston Noll, Dana Morse, Gayle Zydlewski
AQUACULTURE IN SHARED WATERS: 10-YEAR IMPACTS OF AN ENTREPRENEURIAL TRAINING PROGRAM
- 8:45 Sebastian Belle**, William Brayden
THE ROLE OF WORKFORCE DEVELOPMENT AND TRAINING IN ECONOMIC DEVELOPMENT – A PRIVATE SECTOR PERSPECTIVE
- 9:00 Tessa Getchis**, Martyn Haines, Andrew Parker, Michael Gilman, Zachary Gordon
CONNECTICUT AQUACULTURE WORKFORCE DEVELOPMENT STUDY: SUPPORTING THE NEXT GENERATION OF STUDENTS AND FARMERS
- 9:15 Arron Jones**, Melissa Good
BUILDING ALASKA'S MARICULTURE WORKFORCE: STRATEGIC DEVELOPMENT AND LOCAL INITIATIVES FOR SEAWEED AND SHELLFISH CULTIVATION
- 9:30 Carissa Maurin**, Christian Brayden
MAINE SHELLFISH AND SEAWEED AQUACULTURE APPRENTICESHIP: ORIGINS, PROGRESS, AND THE PATH AHEAD

- 9:45 Danny Badger**, Abigail Archer, Josh Reitsma, Rachel Hutchinson
LESSONS LEARNED AND THE PATH FORWARD FOR AQUACULTURE
INTERNSHIPS FOR MASSACHUSETTS
- 10:00 BREAK**
- 10:30 Andrea Tarnecki**, Russell Grice
THE COMMERCIAL OYSTER AQUACULTURE SECTOR TRAINING (COAST)
PROGRAM: PHASE I
- 10:45 Angela Treptow**, Jocelyn Juliano, Matt Gorstein, Steve Richards
THE INAUGURAL SESSION OF THE SOUTH CAROLINA COMMERCIAL
SEAFOOD APPRENTICESHIP PROGRAM
- 11:00 Jessica Small**, Amanda Chesler-Poole
THE OYSTER AQUACULTURE TRAINING PROGRAM (OAT) AT THE VIRGINIA
INSTITUTE OF MARINE SCIENCE
- 11:15 Madeline Pitsenbarger**, William Walton
WORKFORCE DEVELOPMENT OPPORTUNITIES WITH THE VIMS
COMMERCIAL SHELLFISH AQUACULTURE LAB AND TEAM
- 11:30 Ashleigh Epps**, Nicole Naar, Melissa Poe
TIDE'S OUT: SHELLFISH AQUACULTURE WORKFORCE DEVELOPMENT
PROGRAMS
- 11:45 Rob Hudson**, Azure Cygler, Tracey Dalton
BEYOND THE BASICS FOR BUSINESSES AND PRACTITIONERS
- 12:00 Michael Acquafredda**, Diana Burich, Jenny Shinn, Lisa Calvo
ASAP: THE NEW JERSEY APPRENTICESHIP IN SHELLFISH AQUACULTURE
PROGRAM
- 12:15 Sherry Larkin**, Charles Sidman, Angela Collins, Laura Tiu
FLORIDA SEA GRANT'S HARVEST PROGRAM: HELPING AQUACULTURE
REAP VALUE AND ENHANCE STUDENT TRAINING
- 12:30 LUNCH**
- 1:30 Misty Peacock**, Raphael Kudela, John Rombold, Steffan Kinley, Rosa Hunter
BUILDING A PIPELINE TO TRAIN AND RECRUIT INDIGENOUS STUDENTS IN
COASTAL RESILIENCE AND SEAFOOD SAFETY
- 1:45 Imani Black**
EMPOWERING AQUACULTURE'S NEXT GENERATIONS: EDUCATIONAL
PATHWAYS TO EXPANSION WITHIN WORKFORCE DEVELOPMENT

- 2:00 Afroze Mohammed**, Mallory Tuttle
PROMOTING CAREERS IN AQUACULTURE: EDUCATING HIGH SCHOOL STUDENTS ABOUT WORKING IN THE AQUACULTURE INDUSTRY
- 2:15 Ian Yue**, Meghan Massaua, Jane Slentz-Kesler
THE POWER OF COLLABORATION: LEVERAGING SHARED LEARNINGS AND NEEDS TO BUILD A U.S. AQUACULTURE WORKFORCE PATHWAYS MAPPING TOOL
- 2:30 Linas Kenter**, Lindsey Williams, Eric Herbst, Frank Lopez
PREPARING THE SEA GRANT WORKFORCE FOR THE FUTURE: THE SEA GRANT AQUACULTURE ACADEMY
- 2:45 LaDon Swann**, Kola Garber, Katie Graziano, Jennifer Lam, Mark Rath, Charles Weirich
NOAA SEA GRANT'S 10-YEAR AQUACULTURE ROADMAP

USAS STUDENT SUBUNIT SHOWCASE

Saturday, March 8 8:30 AM - 10:15 AM Salon C
Chairs: Julianne M. Grenn, Abdulmalik Oladipupo

- 8:30 Julianne Grenn**, Abdulmalik Oladipupo
USAS STUDENT SUBUNIT SHOWCASE
- 8:45 Jade Sevelow-Lee**, Taylor Dolan, Leila Avery, Madeline Pitsenbarger, Bayleigh Albert
THE AQUACULTURE COLLECTIVE: VIMS USAS STUDENT SUBUNIT
- 9:00 Anissa Overly**, Andrew Pothoven, Margaret Lawrence, Barbara Evans
LAKE SUPERIOR STATE UNIVERSITY AQUACULTURE CLUB
- 9:15 Toheeb Falakin**
EMPOWERING FUTURE AQUACULTURE FOOD SAFETY EXPERTS: STUDENT FOOD HEALTH CERTIFICATION
- 9:30 Kate Pottle**, Parker-Rae Menefee, Shrijan Bajracharya, Cristhian San Andres, David Cline
AQUACULTURE OUTREACH AND EDUCATION AT AUBURN UNIVERSITY

NASA REMOTE SENSING WORKSHOP FOR AQUACULTURE APPLICATIONS

Saturday, March 8 8:30 AM - 10:30 AM Studio 8

Chairs: Amita Mehta, William Wainwright

Requirement:

Attendees should bring their laptops to participate in provided hands-on exercises.

Description:

This 2-hour, introductory, in-person workshop will provide an overview of NASA remote sensing data for supporting aquaculture activities in marine and freshwater environments. The workshop will include the fundamentals of remote sensing of water quality, and how to access and visualize remote sensing data for monitoring harmful algal blooms. Participants will engage in hands-on exercises to access and visualize satellite imagery and water quality indicators using NASA webtools. No prior knowledge or experience is required to attend the workshop.

Agenda:

Presentations:

Fundamentals of Remote Sensing

Overview of Satellites and Sensors Relevant for Water Quality Monitoring

Demonstration of NASA Webtools for Water Quality Monitoring:

Access and visualize satellite images and algal bloom indicators (Water Temperature and Chlorophyll-a) using Worldview

Access and visualize water quality parameters (Chlorophyll-a, Total Suspended Solids, and Secchi Disk Depth) using STREAM

Hands-On Exercises:

Monitor Water Quality of selected Water bodies using Worldview and STREAM

Workshop Feedback & Q/A

PROMOTING THE GUIDELINES FOR SUSTAINABLE AQUACULTURE IN NORTH AMERICA: A REGIONAL WORKSHOP

Saturday, March 8 10:30 AM - 12:30 PM Galerie 1

Chairs: Danielle Blacklock, Kristine Cherry

Background

Aquaculture plays a crucial role in meeting the rising global demand for aquatic foods of an expanding world population, expected to reach 9.7 billion by 2050.

The aquaculture sector in North America is a small but reliable contributor to global aquatic food production, generating a steady output of 600 000 to 650 000 tonnes annually. While production volumes have remained consistent over the past 25 years, the value of aquaculture products has continued to rise, driven by initiatives such as branding, eco-certification, processing and packaging. These value-adding strategies have not only increased profitability, but also positioned the industry to meet growing global demand for diverse aquatic products.

The sector is seeing significant growth opportunities through species diversification, motivated by challenges related to environmental sustainability, climate change adaptation and price competition from imported products. Diversification serves as a strategy for mitigating business risks in regions with fluctuating or uncertain aquatic food demand. In addition, technological innovations have played a transformative role in improving on-farm productivity while reducing production costs, further bolstering the sector's competitiveness.

Despite these advances, the aquaculture sector continues to face challenges. Social license remains a pressing issue, with negative public perceptions of the industry often impeding growth. However, proactive industry actions, including improved transparency and eco-certification efforts, are gradually shifting these narratives. Regulatory burdens also persist, particularly due to poorly harmonized frameworks that increase operational costs.

Initiatives in both Canada and the United States are addressing these constraints to facilitate growth. Seaweed aquaculture, for example, is an emerging opportunity in the region, leveraging North America's extensive and optimal growing conditions. The sector is beginning to embrace this potential, which aligns with broader environmental and economic goals. Meanwhile, trade agreements are expanding beyond North America, reflecting the region's efforts to position itself in the global aquatic food market, and ensuring its aquaculture sector remains a sustainable and economically viable industry.

The Guidelines for Sustainable Aquaculture (GSA)

The [FAO Guidelines for Sustainable Aquaculture \(GSA\)](#) can play a crucial role in supporting aquaculture in North America by providing a robust framework for addressing the region's specific challenges, while fostering sustainable growth.

Containing a set of shared and agreed principles and practices to promote a sustainable aquaculture sector worldwide, they serve as a tool to guide policy processes, decision-making and action at all levels - local, national, regional and global. As an adaptable framework developed by FAO and its Members, the GSA are designed to address the challenges posed by the rapid growth of the aquaculture sector, supporting its sustainable expansion and intensification in alignment with the [FAO Blue Transformation roadmap](#). They support the implementation of the [FAO Code of Conduct for Responsible Fisheries](#) and the [2021 COFI Declaration for Sustainable Fisheries and Aquaculture](#) and their implementation will enable aquaculture to contribute effectively to the 2030 Agenda.

Purpose of the North American Regional Workshop

As part of the European Union funded project '*Supporting a Blue Transformation: Implementation of the Guidelines for Sustainable Aquaculture (GSA)*,' FAO is engaged in mainstreaming the GSA into global, regional and national policies and strategic frameworks in close collaboration with its Members and key stakeholders.

A key component of this initiative is the organization of Regional Workshops, which bring together participants such as policy- and decision-makers, experts, industry leaders, researchers, financial institutions, and civil society organizations (including NGOs and professional associations), certification bodies, partners from the [Global Sustainable Aquaculture Advancement Partnership \(GSAAP\)](#) and farmer representatives (from both large- and small-scale operations).

The North American (NA) Regional Workshop, to be held on 8 March 2025 in New Orleans, the United States of America, will be an open session with all delegates representing the diversity of stakeholders in aquaculture in the region encouraged to attend. The session will begin with an introduction to the GSA by FAO, including a communication strategy that has been developed to promote it. After the introduction, panel members representing key government stakeholders from Canada and the United States will share their comments, followed by an open Q&A session with participants. The objective of convening this workshop is to discuss the GSA, their relevance for the region and how to communicate them effectively, thereby supporting their implementation.

Participants will engage in the following activities:

- I. Identifying priorities and challenges of the aquaculture sector in NA and exploring how the GSA can help address them, including country examples.
- II. Familiarizing key stakeholders with the *draft* GSA Communication Strategy and associated communication materials prepared by FAO.
- III. Developing and determining ownership of a GSA communication approach tailored to the regional context, including key messages, communication materials and products based on templates provided by FAO.

- IV. Determining which regional, national and local networks and stakeholders are to be engaged/approached to effectively communicate the GSA in North America.
- V. Discussing how regional and global initiatives, such as [GSAAP](#) as a collaborative platform to discuss key issues and challenges, innovations and findings in the development of aquaculture, can support the dissemination of the GSA.

The 90-minutes workshop will be conducted in an interactive format, featuring a presentation, a panel discussion and facilitated discussions with participants.

Overall, the workshop will be guided by the following key questions:

1. How can the GSA address the challenges of the aquaculture sector in North America?
2. How can the GSA be communicated effectively to the right audiences?
3. Which key messages, communication materials and platforms are effective to communicate the GSA in the NA region?
4. Which networks and stakeholders are the targeted audience and how to target them?

Expected output

- Participants gain a better understanding of the GSA and their relevance within the regional context.
- Participants collectively discuss a potential communication approach for NA.
- Participants identify key NA networks and stakeholders to be engaged in GSA communication.
- FAO prepares a workshop report.

Proposed Structure of the Session

1. Opening presentations (Graham, 20 mins, will introduce the GSA and describe the process under which they were developed and Amber will present the draft communication strategy)
2. Panel discussion (Representatives from Canada and the United States, 20 mins, may include recommendations by panelists)
3. Facilitated discussion (45¹ mins, based on guiding questions)
4. Summary and closing remarks (5 min)

SHRIMP HEALTH AND DISEASE

Saturday, March 8 11:00 AM - 5:30 PM Studio 8

Chair: Arun Dhar

SATURDAY

- 11:00 Golar Kor**, Nicole Tripp, Nicholas Barnes, Courtney Harrison,
Abdulmalik Oladipupo, Timothy Bruce, James Stoeckel
EFFECT OF SEASON AND STRESS ON PREVALENCE OF WHITE SPOT
SYNDROME VIRUS IN *Procambarus clarkii*
- 11:15 Novi Rosmala Dewi**, Yeh-Fang Hu, Fan-Hua Nan
SEPARATION AND CHARACTERIZATION OF WHITE SHRIMP *Penaeus vannamei*
HEMOCYTES USING CELL SORTING REVEALED NEW TYPE OF HEMOCYTE
SUBPOPULATIONS
- 11:30 Alexandra Florea**, Diego Robledo, Nick Wade, Sarah Salisbury, Tim Bean
SINGLE CELL TRANSCRIPTOMIC ANALYSIS OF HEALTHY AND WSSV-
INFECTED *Litopenaeus vannamei* TISSUES
- 11:45 Nolwenn Callac**, Carolane Giraud, Dominique Pham, Nelly Wabete,
Viviane Boulo
META-ANALYSES REVEAL MICROBIAL BIOMARKERS TO MONITOR THE
HEALTH OF PENAEIDAE LARVAE IN HATCHERIES IN NEW CALEDONIA
- 12:00 Artur Rombenso**, Sarah Berry, Zoe Mcleish, Steven Kakonyi, Pushkar Mandrekar,
Chris Stratford, Caroline Lee, Greg Coman, Dana L.M. Campbell
BEHAVIOURAL METRICS OF INDIVIDUAL BROODSTOCK *Penaeus monodon*
IN THE CONTEXT OF FEEDING
- 12:15 Micah Brodsky**
COORDINATING SHRIMP DISEASE SURVEILLANCE TESTING FOR STATE
AND FEDERAL PROGRAMS TO REDUCE REDUNDENT TESTING EXPENSES
FOR HAWAII'S SPF BROODSTOCK PRODUCERS
- 12:30 LUNCH**
- 1:30 Dustin Moss**, Shaun Moss
THE ROLE OF DISEASE DIAGNOSTICS, CHALLENGE ASSAYS, AND
BIOSECURITY IN THE SELECTIVE BREEDING OF *Litopenaeus vannamei*
- 1:45 Hung Mai**, Paul Schofield, Wendy Sealey, Arun Dhar
DEVELOPMENT OF A PCR-BASED DIAGNOSTIC ASSAY FOR SCREENING
Enterocytozoon hepatopanaei (EHP) IN FORMULATED AQUAFEED
- 2:00 Anindita Roy**, Madisen Pyper, Hayden Moscan, Jung Hwan Kim,
MiKenzee Frasier, Harrison Piper, Grace Lange, Jonathan Politis
SEEKIT™ WSSV FIELD KIT: ADVANCING RAPID AND RELIABLE FIELD
DIAGNOSTICS FOR WHITE SPOT SYNDROME VIRUS IN SHRIMP

- 2:15 Sheree Pagsuyoin**, Frederic Chain, Arun Dhar, Yan Luo, Nerissa Molejon, Calvin Ng
DETECTION OF PATHOGENS IN AQUACULTURE USING NOVEL ACOUSTIC SENSORS
- 2:30 Breno Fragomeni**, Issabelle Ampofo, Hung Mai, Daniel Grevers, Monique Luna, Harris Wright, Arun Dhar
IMPLEMENTATION OF A GENOMIC EVALUATION PROGRAM FOR ACUTE HEPATOPANCREATIC NECROTIC DISEASE RESISTANCE IN *Penaeus vannamei*
- 2:45 Nguyen Dinh-Hung**, Hung N. Mai, Paul J. Schofield, Carlos R. Pantoja-Morales, Arun K. Dhar
A COMPARATIVE STUDY ON THE CHARACTERISTICS AND PATHOGENICITY OF *Vibrio* spp. IN POST-LARVAL *Penaeus vannamei* SHRIMP
- 3:00 Paul Schofield**, John Foscue, Nguyen Dinh-Hung, Hung Mai, Carlos Pantoja-Morales, Arun Dhar
EVALUATION OF TRANSLUCENT POST-LARVAE DISEASE (TPD) RESISTANCE IN VARIOUS FAMILY LINES OF PACIFIC WHITE SHRIMP *Penaeus vannamei*
- 3:15 Carlos Pantoja**, Arun Dhar
A REO-LIKE VIRUS (RLV) INFECTING THE HEPATOPANCREAS OF SPECIFIC PATHOGEN FREE *Penaeus vannamei*
- 3:30 Roberto Cruz-Flores**, Mriya López-Galicia, Laurence Mercier, Eduardo Quiroz-Guzmán, Jorge Cáceres-Martínez
DETECTION OF PATHOGENS IN THE CULTURE ENVIRONMENT OF PACIFIC WHITE SHRIMP *Penaeus vannamei* THROUGH NEXT-GENERATION SEQUENCING
- 3:45 Adrian Moreno**, Carlos Pantoja-Morales, Maia Koliopoulos, Micah Brodsky, Arun Dhar
EXPLORING ALTERNATIVES TO GLACIAL ACETIC ACID FOR THE PREPARATION OF DAVIDSON'S AFA SOLUTION USED FOR FIXATION OF SHRIMP TISSUES
- 4:00 Susan Knudson**, Luke Keeton, Chaithanya Krishna Reddy Noti
"WHAT'S IN THE WATER?" PART II: A NEX-GEN STUDY OF SHRIMP POND MICROBIOMES AND THEIR RELATIONSHIP TO SHRIMP HEALTH
- 4:15 Arun Dhar**, Ma Exanil Plantig, Carlos Pantoja-Morales
ASSOCIATION OF NHP AND DHPV WITH REDUCED GROWTH IN FARMED SHRIMP FROM LATIN AMERICA

NOAA SEA GRANT RESEARCH SYMPOSIUM: 2019 AQUACULTURE COLLABORATIVES (HUBS)

Saturday, March 8 1:30 PM - 5:30 PM Galerie 1

Chairs: Chuck Weirich, Mark Rath

SATURDAY

- 1:30 Anoushka Concepcion**, Gabriela Bradt, Meg Chadsey, Antoinette Clemetson, Melissa Good, Rachel Hutchinson, Catherine Janasie, Dawn Kotowicz, Emily Miller, Stephanie Otts, Joshua Reitsma, Jaclyn Robidoux, Barry Udelson
NATIONAL SEAWEED COLLABORATIVE HUB: NURTURING THE SUCCESSFUL GROWTH AND MATURATION OF THE DOMESTIC SEAWEED AQUACULTURE SECTOR
- 1:45 Annie Fagan**, Sebastian Belle, Deborah Bouchard, Nick Branchina, Christian Brayden, Hugh Cowperthwaite, Chris Davis, Meggan Dwyer, Amanda Ellis, Teresa Johnson, Anne Langston Noll, Dana Morse, Lisa White, Gayle Zydlewski
THE MAINE AQUACULTURE HUB: UPDATES, LEARNINGS AND FUTURE DIRECTIONS
- 2:00 Yonathan Zohar**, Deborah Bouchard, Brian Petersen, Greg Fischer, Steve Summerfelt, Catherine Frederick, John Stubblefield, James Hurley, Gayle Zydlewski, Fredrika Moser
RECIRCULATING AQUACULTURE SALMON NETWORK (RAS-N)
- 2:15 Eric Herbst**, Linnea K. Andersen, Jason Abernathy, David L. Berlinsky, Greg Bolton, Russell J. Borski, David Cerino, Michael Ciaramella, Robert W. Clark, Michael O. Frinsko, S. Adam Fuller, Steve Gabel, Bartholomew W. Green, Steve Hall, Michael Hopper, Linas W. Kenter, Frank Lopez, Barry Nash, Matthew Parker, Kwamena Quagrainie, Hanping Wang, Benjamin J. Reading
STRIPERHUB: STRIPED BASS *Morone saxatilis* AQUACULTURE
- 2:30 Tessa Getchis**, Abigail Archer, Azure Cygler, Hisham Abdelrahman, Rachel Hutchinson, Joshua Reitsma, Robbie Hudson, Michael Gilman, Grace Simpkins, Diana Payne
THE DUAL ROLE OF AQUACULTURE EXTENSION ALONG HEAVILY POPULATED COASTLINES: EVOLVING TO ADDRESS PUBLIC CONCERN WHILE FACILITATING WORKFORCE DEVELOPMENT
- 2:45 Denis Grouzdev**, Ximing Guo, Emmanuelle Pales Espinosa, Arnaud Tanguy, Kimberly Reece, Jan McDowell, Huiping Yang, Gregg Rivara, Joshua Reitsma, Antoinette Clemetson, Bassem Allam
LAYING THE FOUNDATIONS TO TRANSFORM *Mercenaria mercenaria* AQUACULTURE IN THE U.S.: THE HARD CLAM SELECTIVE BREEDING COLLABORATIVE

- 3:00 David Bushek**, Peter Rowe, Ryan Carnegie, Karen Hudson, Tal Ben-Horin, Lucia Safi, Robert Rheault, Lori Gustafson, Lucas Marxen, William Walton, Jennifer Pollack, Leslie Sturmer, Jerome La Peyre
EXPANSION OF THE REGIONAL SHELLFISH SEED BIOSECURITY PROGRAM (RSSBP) UNDER NOAA SEA GRANT HUBS
- 3:15 Amy Schrank**, Donald Schreiner
ADVANCING THE GREAT LAKES AQUACULTURE COLLABORATIVE (GLAC)
- 3:30 Bradley K. Fox**, Darren K. Okimoto, Andre P. Seale, Cherie Kauahi, Anne Rosa, Simon Ellis, Kelley Anderson Tagarino, Darren T. Lerner
ESTABLISHING A HAWAII-PACIFIC AQUACULTURE CONSORTIUM: REVITALIZATION AND GROWTH OF THE AQUACULTURE DEVELOPMENT PROGRAM
- 3:45 Kevin Johnson**, Angee Doerr, Nicole Naar, Luke Gardner, Ashleigh Epps, Melissa Good, Melissa Poe
WEST COAST AQUACULTURE COLLABORATIVE
- 4:00 Bradley (Kai) Fox**, Julie Barber, David Crisostomo, Melissa Poe
CROSS-PACIFIC INDIGENOUS AQUACULTURE COLLABORATIVE NETWORK: CULTIVATING ABUNDANCE THROUGH BIOCULTURAL PRACTICES

ENGINEERING CONTRIBUTED – AES

Saturday, March 8 1:30 PM - 5:30 PM Galerie 3

Chairs: German Merino, Tim Pfeiffer

- 1:30 Jacob Scoccimerra**
PIONEERING AQUACULTURE STUDIES IN MICROGRAVITY FOR BENEFITS ON EARTH
- 1:45 Maria Teresa Gutierrez-Wing**, YoungHo Shin, Jin-Woo Choi, Kelly A. Rusch
IMPROVING MICROALGAL RESEARCH AND PRODUCTION WITH LOW-COST TECHNOLOGIES
- 2:00 Chimezie Chiam**a, Maria Gutierrez-Wing, Chandra Theegala, Mike Benton, Ronald Malone
PHB/STARCH AND PHB/CELLULOSE BLENDS FOR AMMONIA ASSIMILATION IN RECIRCULATING AQUACULTURAL SYSTEMS (RAS)
- 2:15 Chinedu Chiam**a, Maria Teresa Gutierrez-Wing, Chandra Theegala, Mike Benton, Ronald Malone
POLYHYDROXYBUTYRATE/CELLULOSE BLEND (PHBC) AS A CARBON SUBSTRATE FOR DENITRIFICATION IN RECIRCULATING AQUACULTURE SYSTEMS

- 2:30 Md Tamzidul Alam**, Chandra S. Theegala
DEVELOPMENT AND EVALUATION OF PHBV-BIOMASS COMPOSITE PELLETS FOR EFFICIENT DENITRIFICATION IN RECIRCULATING AQUACULTURE SYSTEMS
- 2:45 Guozhi Luo**, J Li, Z. Zhu, X. Lv, X. Hu, H Tan, W. Liu
EXPLORING SINGLE-STAGE OXIC PROCESS FOR SIMULTANEOUS RAPID RECOVERY OF PHOSPHATE AND NITRATE VIA BIOFLOCS TO PROMOTE CIRCULAR ECONOMIC
- 3:00 Jonathan Roques**, Federico Micolucci, Naoki Fujii, Geoffrey S. Ziccardi, Ebuka Unegbu, Suguru Hosokawa, Amélie Marqué, Kristina Sundell, Tomonori Kindaichi
Candidatus Scalindua, A BIOLOGICAL SOLUTION TO TREAT SALINE RECIRCULATING AQUACULTURE SYSTEM WASTEWATER
- 3:15 Nick Planson**, Chad Strater
CARBON-NEGATIVE SHELLFISH FARMING THROUGH ELECTRIFICATION AND RENEWABLES – AT SEA AND ON LAND
- 3:30 Cristhian San Andres**, Melanie Rhodes, Khanh Nguyen, Jairo Gonzalez, Arnold Gutierrez, Allen Davis
ASSESSMENT OF OXYGEN DYNAMICS IN A SHRIMP POND USING OPTICAL DISSOLVED OXYGEN SENSORS
- 3:45 Michael Byrne**, Stephanie Thornton, Alex Ogg, Marni Oaten, Phillip Galloway, David Lane, Hamish Ebery
PROJECT AQUAGRID: DEMONSTRATING OCEAN ENERGY'S CONTRIBUTION IN ACCELERATING THE DECARBONISATION OF AQUACULTURE'S ENERGY REQUIREMENTS
- 4:00 Lilian Elekwachi**
CREATING AN INNOVATIVE HYBRID SMART FISH SMOKING TECHNOLOGY FOR CATFISH FARMERS IN THE NIGER DELTA, NIGERIA

FISH VACCINES AND VACCINE TECHNOLOGIES

Saturday, March 8 1:30 AM - 5:30 PM Salon A

Chairs: Matt Hawkyard, Ken Cain, Sarah Barker

- 1:30 Chandler M. Schneider**, Owen P. Ledford, Benjamin R. LaFrentz, Julio C. García, Ian A.E. Butts, Timothy J. Bruce
EFFICACY OF AN IMMERSION-BASED FORMALIN-KILLED VACCINE IN LARGEMOUTH BASS *Micropterus salmoides* AGAINST MOTILE *AEROMONAS* SEPTICEMIA
- 1:45 Jessie 'Jie' Ma**, Veronica Myrsell, Joseph Dietrich, Kenneth Cain
DEVELOPMENT OF RIFAMPICIN AND NOVOBIOCIN RESISTANT *Aeromonas salmonicida* STRAINS AND THEIR POTENTIAL AS LIVE ATTENUATED VACCINE CANDIDATES
- 2:00 Matt Hawkyard**, Cameron Schuster, Kenneth Cain, Joseph Dietrich
THE USE OF COMPLEX PARTICLES FOR ORAL VACCINATION OF SABLEFISH *Anoplopoma fimbria* AGAINST ATYPICAL *Aeromonas salmonicida*
- 2:15 Esteban Soto**, Zeinab Yazdi, Darbi Jones, Renata Egger, Susan Yun, Matt Griffin, Mark Adkison
POTENTIAL OF SUB-UNIT AND LIVE-ATTENUATED VACCINES AGAINST PISCINE LACTOCOCCOSIS IN RAINBOW TROUT *Oncorhynchus mykiss*
- 2:30 Esteban Soto**, Diem Thu Nguyen, Khalid Shahin, Zeinab Yazdi, Miku Kawahara, Taylor Heckman, Benjamin LaFrentz, Courtney Harrison, Tim Bruce, Thomas Loch, Matt Griffin, Kuttichantran Subramaniam
GENERATION AND EFFICACY OF A LIVE ATTENUATED VACCINES AGAINST COLUMNARIS DISEASES IN A SALMONID MODEL OF INFECTION
- 2:45 Manuel Soto**, Taylor Wheatley, Sara Purcell, Shona Whyte, Laura Groves, Frederick von Rönge, Andrew Swanson, Mark Fast
MRNA VACCINE: A PROMISING THERAPEUTIC APPROACH FOR ISAV IN ATLANTIC SALMON
- 3:00 Cristian Gallardo-Escárate**, Valentina Valenzuela-Muñoz, Diego Valenzuela-Miranda, Yeny Acosta, Antonio Casuso, Constanza Sáez-Vera, Marcelo Muñoz-Troncoso
ANTIMICROBIOTA SEA LICE VACCINES
- 3:15 Tetsuzan Ron**, Margarita Smirnov, Hanna Hershko
FISH WELFARE – A CASE STUDY: REVEALING FOR THE FIRST-TIME SIDE EFFECTS OF VACCINATION IN EUROPEAN SEA BASS *Dicentrarchus labrax* AND BARRAMUNDI *Lates calcarifer* IN ISRAELI FISH FARMING
- 3:30 Banikalyan Swain**, Roy Curtiss III
SELF-DESTRUCTING *Edwardsiella piscicida*: A NOVEL DNA VACCINE AND ANTIGEN DELIVERY SYSTEM FOR TILAPIA LAKE VIRUS (TILV) PREVENTION

VIBRIOS

Saturday, March 8 1:30 PM - 5:00 PM Salon F

Chairs: Steve Jones, Cheryl Whistler

- 1:30 Cheryl Whistler**, Benjamin Wasson, Colby Griffin, Nadia Pavlik, Randi Foxall, Stephen Jones
ASSESSMENT OF STRATEGIES TO REDUCE THE RISK OF CONTAMINATION OF OYSTER SEED AND PREVENT INTRODUCTION OF HUMAN PATHOGENIC *Vibrio parahaemolyticus* INTO UNAFFECTED AQUACULTURE AREAS
- 1:45 Caleb Cavness**, Aixin Hou, Sashika Dilshan, Mohd Manzar Abbas, Brian Matherne
PATHOGENECITY OF GULF *Vibrio* spp. AND THEIR LD50 IN LARVAL EASTERN OYSTERS *Crassostrea virginica*
- 2:00 Marta Gomez-Chiarri**, Jamal Andrews, Gary P. Richards, Jaypee Samson, David Rowley
BACTERIOPHAGE EFFECTS ON VIBRIO – PROBIONT INTERACTIONS
- 2:15 Alison Burke**, Joud Aldaroub, Chrissy Walsky, Rylee Ewell, Frank Aylward, Ann Stevens
ISOLATION AND CHARACTERIZATION OF *Vibrio parahaemolyticus* BACTERIOPHAGES FROM OYSTERS
- 2:30 Whitney Jaillet-Neil**, Jessica L. Jones
DIFFERENTIATION OF HUMAN PATHOGENIC *Vibrio* spp. ON COMMERCIALY AVAILABLE CHROMOGENIC AGARS
- 2:45 Magaleate Kostelnik**, Carlie Perricone, Paul Wills
EVALUATION OF A RAPID DISEASE DETECTION METHOD FOR VIBRIO IN MARINE WARM WATER FINFISH AQUACULTURE
- 3:00 Ari Widodo**, Huai-Ting Huang, Fan-Hua Nan
HARNESSING THE PYTOCHEMICAL PROPERTIES OF ETHYL CAFFEATE FOR MODULATING THE ANTIMICROBIAL ACTIVITY, THE IMMUNE RESPONSE IN SYSTEMIC AND MUCOSAL ORGAN, AND DISEASE RESISTANCE AGAINST *Vibrio parahaemolyticus* IN HYBRID GROUPEP (*Epinephelus fuscoguttatus* ♀ × *Epinephelus lanceolatus* ♂)
- 3:15 Steph Smith**, Mark Ciesielski, Tal Ben-Horin, Rachel T. Noble
MICROBIAL DYSBIOSIS AND FUNCTIONAL SHIFTS IN VIBRIO CLADES AS DRIVERS OF EASTERN OYSTER MORTALITY

SATURDAY

- 3:30 Mark Ciesielski**, Tal Ben-Horin, Rachel Noble
HIGH RESOLUTION MONITORING REVEALS SENTINEL SIGNAL IN THE WATER COLUMN PRECLUDING MORTALITY IN FARMED OYSTERS IN NORTH CAROLINA
- 3:45 Gulnihal Ozbay**, Ali Parsaeimehr, Devotha Tumushimiyimana, Bhini Arora
INVESTIGATING ENVIRONMENTAL PARAMETERS AND *Vibrio* spp. LEVELS IN OYSTERS AND SEAWATER IN SLAUGHTER BEACH, DELAWARE USA
- 4:00 Steve Jones**, Randi Foxall, Cheryl Whistler, Easton White
THE CHANGING SEASONAL ECOLOGY OF *Vibrio parahaemolyticus* POPULATIONS IN THE NORTHEAST U.S.
- 4:15 Selim A. Alarape**, Ismail O. Badmus, Oluwasanmi O. Aina, Olanike K. Adeyemo
PREVALENCE, CHARACTERISATION, AND ANTIBIOTIC RESISTANCE PROFILES OF *Vibrio cholerae* AND *Vibrio parahaemolyticus* IN AFRICAN CATFISH ACROSS SELECTED REGIONS IN IBADAN, NIGERIA

AQUATIC ANIMAL HEALTH 101

Saturday, March 8 1:30 PM - 5:30 PM Balcony M

Chair: Kathleen Hartman

- 1:30 A BRIEF OVERVIEW OF PFAS IN FISH**
Dengjun Wang, University of Florida
- 1:45 THE INTERSECTION OF HARMFUL ALGAL BLOOMS, ANTIMICROBIAL RESISTANCE, AND FISH HEALTH IN AQUACULTURE: A CASE STUDY OF LAKE VICTORIA**
Eric Teplitz, Cornell University
- 2:00 HARMFUL ALGAL BLOOMS IN AQUACULTURE: HOW TO KNOW WHEN GREEN WATER IS BAD**
Alan Wilson, Auburn University
- 2:30 GENETIC STRATEGIES FOR IMPROVING GROWTH PERFORMANCE AND NUTRIENT UTILIZATION IN SALMONIDS**
Beth Cleveland, USDA ARS, Shepherdstown, WV
- 3:00 REVOLUTIONIZING TILAPIA FARMING: THE CRITICAL ROLE OF GENETIC SELECTION IN DRIVING ECONOMIC SUCCESS AND SOCIAL IMPACT GLOBALLY**
Carlos Lopez, Spring Genetics
- 3:30 DISEASE DIAGNOSTIC AND PATHOGEN SCREENING TESTS: WHAT IS THE DIFFERENCE AND WHAT DO THEY TELL YOU**
Mark Polinski, USDA ARS, Maine

- 4:00 SALMONID EGG DISINFECTION 101
Greg Lambert, Cooke Aquaculture
- 4:30 EMERGING VIRAL DISEASES OF TILAPIA
Tom Waltzek, Washington State University

AN OVERVIEW OF U.S. AQUACULTURE RESEARCH SUPPORT

Saturday, March 8 1:30 PM - 5:30 PM Salon C

Chair: Alan Wilson

SATURDAY

- 1:30 THE INLAND PRODUCTION OF THE EASTERN OYSTER UTILIZING A CLOSED ARTIFICIAL SEAWATER RECIRCULATING AQUACULTURE SYSTEM
Steve Pollock, Owner, Triple N Oysters, Grand Isle LA
- 1:45 CHANGING THE DYNAMIC: RAISING BASS FINGERLINGS IN SPLIT POND SYSTEMS
Shawn McNulty, Owner, American Sport Fish Hatchery Management Group, LLC., Pike Road AL
- 2:00 JUVENILE LARGEMOUTH BASS *Micropterus salmoides* DISEASE SUSCEPTIBILITY AND VACCINATION RESPONSE AGAINST *Aeromonas* spp.
Timothy J. Bruce, Assistant Professor, Auburn University, Auburn AL
- 2:15 DEVELOPMENT AND VALIDATION OF MOLECULAR DIAGNOSTIC ASSAYS FOR THE DETECTION OF A LETHAL VIRAL DISEASE OF CULTURED AND WILD WHITE STURGEON *Acipenser transmontanus*
Thomas B. Waltzek, Washington Animal Disease Diagnostic Laboratory and Department of Veterinary Microbiology and Pathology, College of Veterinary Medicine, Washington State University, Pullman, WA
- 2:30 BIRD DEPREDATION ON CATFISH AND BAITFISH AQUACULTURE
Brian S. Dorr, Research Wildlife Biologist, USDA APHIS WS, National Wildlife Research Center, Starkville MS
- 2:45 AQUACULTURE EXTENSION IMPACTS ACROSS THE WESTERN REGION
Jackson A. Gross, Cooperative Extension Aquaculture Specialist, University of California Davis, Davis CA
- 3:00 AQUACULTURE INFORMATION EXCHANGE: THE NEW ONLINE HOME FOR THE U.S. AQUACULTURE COMMUNITY
Joe Caterine, Digital Experience Manager, Virginia Institute of Marine Science, Gloucester Point VA
- 3:15 THE IMMUNOLOGICAL BASIS FOR OPTIMIZING INTERVAL TIMES FOR FISH MUCOSAL VACCINATION
Irene Salinas Remiro, Professor, University of New Mexico, Albuquerque NM

- 3:30** QUANTIFYING MALE REPRODUCTIVE PERFORMANCE TO IMPROVE HATCHERY PRODUCTION OF HYBRID CATFISH
Ian A.E. Butts, Associate Professor, Auburn University, Auburn AL
- 3:45** REEVALUATE PHOSPHORUS AND NITROGEN IN DIFFERENT SIZED PARTICLES IN WATER IN AQUACULTURE PONDS FOR BETTER PREDICTING HARMFUL ALGAL BLOOMS
Dengjun (Kevin) Wang, Assistant Professor, University of Florida, Gainesville FL
- 4:00** BURBOT *Lota lota* AQUACULTURE: INVESTIGATION OF IMMUNE DEVELOPMENT AND ASSESSMENT OF RECIRCULATING AQUACULTURE FOR EMBRYONIC AND LARVAL CULTURE
Luke Oliver, Trevor Strickland, Ryan Maxwell, Veronica Myrsell, Spenser Stenmark, Joseph Evavold, Kenneth Cain
- 4:15** GROWING AQUACULTURE LITERACY IN MAINE'S 4TH TO 8TH GRADE CLASSROOMS
Christopher V. Davis, Maine Aquaculture Information Center, Walpole ME
- 4:30** WHEN BLUE IS GREEN: SUSTAINABLE BLUE FOOD SYSTEMS DRIVEN BY INTEGRATED AQUAPONICS
Jen-Yi Huang, Associate Professor, Purdue University, West Lafayette IN
- 5:00** SMART SUSTAINABLE SHELLFISH AQUACULTURE MANAGEMENT: AN INTEGRATED APPROACH TOWARDS PRECISION SHELLFISH FARMING
Miao Yu, Professor, University of Maryland, Baltimore MD

U.S. TROUT FARMERS ASSOCIATION – TROUT FORUM

Saturday, March 8 1:30 PM - 5:30 PM Balcony K

Chair: Michael Lee

- 1:30** FUNCTIONAL FEEDS AND THEIR IMPORTANCE IN TROUT FARMING
Laura Horowitz - Zeigler
- 1:45** ADVANCES IN TRAIT PHENOTYPING TO IMPROVE GENETIC SELECTION IN RAINBOW TROUT
Ken Overturf - USDA - ARS
- 2:00** UNIVERSITY OF IDAHO, AQUACULTURE RESEARCH INSTITUTE (ARI) UPDATES
Brian Small - University of Idaho
- 2:15** GILL DISEASE IN EARLY LIFE STAGES
Nora Hickey & Kevin Roy Snekvik - Washington State University

- 2:30** FROM ACADEMIA TO CLINICAL PRACTICE: USE OF BLOOD TO EVALUATE HEALTH AND WELFARE IN AQUACULTURE
Leslie Clark - WellFish Tech
- 2:45** WHAT'S NEW AND ON THE HORIZON FOR KEEPING FISH HEALTHY; UPDATES FROM THE AQUATIC ANIMAL DRUG APPROVAL PARTNERSHIP (AADAP)
Pamela Sponholtz – U.S. Fish & Wildlife Service
- 3:00** ESTABLISHING THE FOUNDATION FOR LONG-TERM SALMONID AQUACULTURE ACADEMIC RESEARCH AND TRAINING INFRASTRUCTURE IN THE PACIFIC NORTHWEST
Michael Paul Phelps - Washington State University
- 3:15** THE STANDARD IS CHANGING... FOR FISH AND FARM, PEOPLE AND PLANET
Jill Swasey - Aquaculture Stewardship Council (ASC)

SCIENCE & PUBLIC ENGAGEMENT

Saturday, March 8 1:30 PM - 3:30 PM Galerie 2

Chair: David Shiffman

This hands-on workshop will teach the basic principles and advanced tips and tricks for public science engagement, focusing on crafting your message and using some social media tools to share it with the world.

GETTING CONNECTED: BUILDING BRIDGES BETWEEN CONSERVATION AND COMMERCIAL AQUACULTURE

Saturday, March 8 2:30 PM - 5:30 PM Salon D

Chairs: Joel Bader, Ann Gannam, Kathleen Hartman,
Taylor Lipscomb, Kai Lorenzen, Josh Patterson

- 2:45** **Mariah L. Kachmar**, Kyra Lenderman, Kelly Roper, Isaiah Mayo, Genevieve Bernatchez, LTJG Tyler Houck, Barry Smith, Gary Wikfors, Katherine McFarland
ASSESSMENT OF NATURAL OYSTER POPULATION HEALTH AND DYNAMICS TO INFORM RESTORATION AND AQUACULTURE PLANNING IN LONG ISLAND SOUND
- 2:45** **Jackie Zimmerman**
MERCK ANIMAL HEALTH: CONNECTING AQUACULTURE AND CONSERVATION THROUGH TECHNOLOGY

- 3:00 Monica Fabra**, Stephanie Alexander, Vyacheslav Lyubchich, Olivia Caretti, Matthew Gray, Elizabeth North
ALTERNATIVE SUBSTRATES USED FOR OYSTER RESTORATION, FISHERIES, AND AQUACULTURE: ASSESSMENT OF SPAT RECRUITMENT, TOXIC LEACHING AND BIOFILM ASSOCIATED WITH SHELL AND NON-SHELL MATERIAL
- 3:15 Casey Murray**, Brandon Ray, Olivia Markham, Cortney Ohs, Joshua Patterson, Angela Collins, Matthew DiMaggio
INVESTIGATING THE EFFICACY OF CALCEIN MARKING TECHNIQUES FOR HOGFISH *Lachnolaimus maximus*
- 3:30 Lorenzo Juarez**, Pablo Konietzko, Freddy Lapentti
RESTORATION OF *Totoaba macdonaldi*: INTEGRATING CONSERVATION AND COMMERCIAL AQUACULTURE TO ENSURE SUSTAINABILITY
- 3:45 Rabi Elabor**, Tende Andongma, Charles Jagoe, Benjamin Mwashote, Veera Badisa, Tolulope Fiola, Victor Ibeanusi
ASSESSMENT OF ENVIRONMENTAL AND CLIMATIC FACTORS FOR SPATIAL PLANNING IN AQUACULTURE PRODUCTION
- 4:00 Julio C. García**, Benjamin H. Beck, Megan Davis, Troy J. Bader, Raimundo Espinoza, Benjamin R. LaFrentz, Victoria Cassar, Edna Díaz-Negron, Paola Sotomayor, Sol Marie Méndez, Brittany Martin, Kelly Simpson
BACTERIAL MONITORING OF QUEEN CONCH *Aliger gigas* HATCHERY AT THE PUERTO RICO NAGUABO AQUACULTURE CENTER
- 4:30 Aidah Abdul Wahid**, Qun Liu
A COMPARATIVE STUDY OF STOCK STATUS AND SUSTAINABLE FISHERIES MANAGEMENT OF *Pomadasy's olivaceus* ACROSS PAKISTAN'S COASTLINES

GIANT CLAM

Saturday, March 8 2:30 PM - 5:30 PM Galerie 4

Chair: Miguel Mies

- 2:30 James W. Fatherree**
UPDATE ON THE CONSERVATION STATUS OF GIANT CLAM SPECIES
- 2:45 Eric J. Armstrong**
SMALL, UNENFORCED MARINE PROTECTED AREAS PROMOTE DIVERSITY AND PRESERVE DEMOGRAPHY IN POPULATIONS OF THE SMALL GIANT CLAM *Tridacna maxima* IN FRENCH POLYNESIA
- 3:00 Shit Fun Chew**, Caryn Z. Pang
EFFECTS OF EXPOSURE TO ELEVATED TEMPERATURE ON THE OUTER MANTLE OF THE FLUTED GIANT CLAM *Tridacna squamosa*

3:15 Miguel Mies, Amana Garrido, Carla Zilberberg, Paulo Sumida, Caryn Pang, Yuen Ip, Shit Chew
ANATOMICAL COMPLEXITY ALLOWS FOR HEAT-STRESSED GIANT CLAMS TO UNDERGO SYMBIONT SHUFFLING AT BOTH ORGANISM AND ORGAN LEVELS

3:30 Vaihiti Teaniniuraitemoana, Cristian J. Monaco, Marion Celaries, Thierry Jauffrais, Simon Van Wynsberge
LIGHT INTENSITY MODULATES THE EFFECT OF THERMAL STRESS ON THE GIANT CLAM *Tridacna maxima* AND ITS SYMBIOTIC ZOOXANTHELLAE

SHORT ATTENTION SPAN OUTREACH STRATEGIES – REACHING PEOPLE WHERE THEY ARE

Saturday, March 8 3:45 PM - 5:30 PM Galerie 2

Chair: Eric Huepel

An overview of alternative outreach strategies to effectively reach audiences through video and animation, games, and similar.

CLIMATE FRIENDLY INNOVATIONS

Saturday, March 8 4:00 PM - 5:30 PM Galerie 6

Chairs: Gabby Bradt, Jaclyn Robidoux, Annie Fagan

4:00 Willy Leathers, Erin Adams
SUSTAINABLE TECHNOLOGY AND MATERIALS AT MAINE OCEAN FARMS

4:15 Abigail Barrows, Benjamin Jackson
REIMAGINING PLASTIC-BASED AQUACULTURE: AN INVESTIGATION INTO VIABLE MATERIALS

4:30 Alicia Gaiero
EMPOWERING AQUACULTURE: SCALABLE SOLAR-POWERED SOLUTIONS FOR THE WORKING WATERFRONT

4:45 Chad Strater, Nick Planson
ELECTRIFYING SEA FARMING: SUSTAINABLE EQUIPMENT INNOVATION THROUGH THE BOAT YARD, LLC'S USDA NE SARE-FUNDED PROJECT

SUNDAY, March 9

UNDERSTANDING INDUSTRY NEEDS ON ECONOMICS AND MARKETING CHALLENGES

Sunday, March 9 8:30 AM - 10:00 AM Galerie 4

Chair: Charles Clark

This session will be part of a broader needs assessment to obtain input from farmers, specialists, agents, and key stakeholders to better understand the specific tools, resources, and training that will enhance economic and marketing strategies in aquaculture. The results from this session will inform future efforts to develop targeted resources, analyses, and training programs to support the industry's growth and sustainability.

AQUACULTURE KNOWLEDGE FROM OLD COOTS – VOLUME VI

Sunday, March 9 8:30 AM - 12:30 PM Salon F

Chair: Bob Robinson

- 8:30** ENTREPRENEURIAL CHALLENGES FOR AN AQUACULTURE START-UP
Dr. Mike Timmons – PHD & P.E. Professor Emeritus Cornell University
- 9:00** FISH FAMILY ROBINSON
Dave Robinson – Co-owner Robinson Wholesale Bait
- 9:30** FIFTY YEARS AT THE FISHERY...REMEMBERING THINGS I FORGOT
Ken Beer – Owner - The Fishery
- 10:00** **BREAK**
- 10:30** ALL CREATURES SCALED AND WET
Dr Hugh Mitchell – Aquatic NW Veterinary Services
- 11:00** CATFISH DAYS...THEN AND NOW
Mike McCall – Editor the Catfish Journal
- 11:30** IF YOU'RE GOING THROUGH HELL KEEP ON GOING – MY LIFE AS A FISH FARMING ADVOCATE
Jeanne McKnight – Executive Director of the NW Aquaculture Alliance

AQUACULTURE AND SEAFOOD POLICY

Sunday, March 9 8:30 AM - 5:30 PM Galerie 6

Chair: Michelle (Mick) Walsh; Razieh Farzad

- 8:30** AQUACULTURE AND SEAFOOD POLICY – AN INTRODUCTION
Michelle L. “Mick” Walsh, President, United States Aquaculture Society
- 8:45** U.S. AQUACULTURE: A FARMER’S PERSPECTIVE
Paul Zajicek, Executive Director, National Aquaculture Association
- 9:15** AGRICULTURAL MARKETING SERVICE: CREATING OPPORTUNITIES FOR AMERICAN FARMERS AND BUSINESSES
Sonja Jones, Food Technologist, USDA Agricultural Marketing Service
- 9:45** MORNING WRAP UP AND Q&A
- 10:00** **BREAK**
- 11:00** THE SEAFOOD HACCP RULE
Karen Swajian, Consumer Safety Officer, Center for Food Safety and Applied Nutrition, FDA
- 11:30** IMPLEMENTATION OF THE USDA-FSIS HACCP REGULATION IN THE LOCAL CATFISH INDUSTRY
Evelyn Watts, Seafood Extension Specialist, Louisiana Sea Grant
- 12:00** ISSC AND ITS ROLE IN AQUACULTURE AND SEAFOOD POLICY
Keith Skiles, Executive Director, Interstate Shellfish Sanitation Conference
- 12:30** **LUNCH**
- 1:30** SEAFOOD HACCP CERTIFICATION – AN INTRODUCTION
Razieh Farzad, Seafood Safety Extension Specialist, Florida Sea Grant
- 1:45** SHA/AFDO TRAINING CHANGES
Michael Ciaramella, Director, Seafood HACCP Alliance
- 2:15** SUPPORT FOR INDUSTRY IN COMPLYING WITH THE TRACEABILITY RULE
Lisa Weddig, Chief Food Safety Officer, National Fisheries Institute
- 2:45** MID-AFTERNOON WRAP UP AND Q&A
- 3:00** **BREAK**
- 3:30** AQUACULTURE REGULATION AND POLICY IN A POST-CHEVRON WORLD
Andrew Tsui, Healthcare Attorney, Greenberg Traurig, LLP

SUNDAY

- 3:45 REGULATORY FRAMEWORK FOR CELLULAR AGRICULTURE
Razieh Farzad, Seafood Safety Extension Specialist, Florida Sea Grant
- 4:00 FUNDAMENTALS OF IKE JIME AND IMPLICATIONS FOR U.S. FOOD POLICY AND SECURITY
Andrew Tsui, President, Ike Jime Federation, LLC
- 4:30 END-OF-DAY WRAP UP, PANEL DISCUSSION, AND Q&A

FISH HEALTH CONTRIBUTED

Sunday, March 9 8:30 AM - 5:30 PM Galerie 3

Chair: Kathleen Hartman

- 8:30 **Megan Cox**, Ryan Maxwell, Veronica Myrsell, Brian Small, Jie Ma
EFFECT OF HUMIC SUBSTANCE INCORPORATED DIET ON RAINBOW TROUT IMMUNE RESPONSE TO *Flavobacterium psychrophilum*
- 8:45 **Vitor Silva**, Treva Billyard, Sterling Bailey, Izak Hanson, Lora Petrie-Hanson
BETA GLUCAN INDUCED TRAINED IMMUNITY IS CORRELATED TO VARIABLE DISEASE RESISTANCE AGAINST *Aeromonas hydrophila* AND *Flavobacterium covae* IN CHANNEL AND HYBRID CATFISH
- 9:00 **Ishini Appuhami**, Timothy Bruce, Allen Davis
EFFECT OF PHYTOGENIC INGREDIENTS ON GROWTH PERFORMANCE AND SUSCEPTABILITY TO BACTERIAL INFECTION IN JUVENILE CHANNEL CATFISH *Ictalurus punctatus*
- 9:15 **Gunnar Psurny**, Robert Durborow, Vincent Teye, Adetola Ogundipe, Tifani McKay, John Kelso
FISH DISEASE CASES DIAGNOSED AT THE KENTUCKY STATE UNIVERSITY FISH DISEASE DIAGNOSTIC LABORATORY FROM 2022-2024
- 9:30 **Rolando Ibarra**, Pablo Ibieta
PRODUCTION AND SANITARY STRATEGIES AS KEY REDUCTION DRIVERS IN MORTALITY AND ANTIBIOTIC USE IN CHILEAN SALMON FARMING
- 9:45 **Tetsuzan Ron**, Margarita Smirnov, Tamir Ofek, Hanna Hershko
COMMON AND NEWLY DISCOVERED PATHOGENS IN THE ISRAELI MEDITERRANEAN SEA MARICULTURE
- 10:00 **BREAK**
- 11:00 **Alex Wright**, Carly Moody, Jackson Gross
COMPOSITION OF CALIFORNIA'S AQUACULTURE INDUSTRY: DISEASE MANAGEMENT STRATEGIES AND IMPLICATIONS FOR ANIMAL WELFARE

- 11:15 Ian Gardner**, Joao Romero
HYDROEPIX: A WATERBORNE SPREAD MODEL FOR INFECTIOUS DISEASES OF FARMED FINFISH
- 11:30 Abdulmalik A. Oladipupo**, Anita M. Kelly, Benjamin R. LaFrentz, Luke A. Roy, D. Allen Davis, Timothy J. Bruce
HUMIC SUBSTANCES COMBINED WITH BUTYRIC ACID AND/OR YEAST CELL WALLS PROMOTES GROWTH PERFORMANCE AND RESISTANCE TO *Flavobacterium covae* AND *Edwardsiella ictaluri* CO-INFECTION IN CHANNEL CATFISH *Ictalurus punctatus*
- 11:45 Ozgur Erdogan**, Md. Inja-Mamun Haque, Hridi A. Biswas, Ty J. Werdel, Haitham H. Mohammed
EXPLORING THE IMPACT OF OSMOTIC STRESS ON VIRULENT *Aeromonas hydrophila*, THE CAUSATIVE AGENT OF MOTILE *AEROMONAS SEPTICEMIA* (MAS) IN U.S. CATFISH AQUACULTURE
- 12:00 Taylor Heckman**, Isabella Medina Silva, Esteban Soto
FISHING FOR DISEASE DETERMINANTS IN PATHOGENIC *Lactococcus* SPECIES
- 12:15 Ali Dawood**, Sahar Rostami, Hossam Abdelhamed
INVESTIGATING VIRULENCE AND PROTEOMIC DYNAMICS IN ADAPTED STRAINS OF *E. ictaluri*
- 12:30 LUNCH**
- 1:30 Valentina Valenzuela-Muñoz**, Constanza Sáez-Vera, Cristian Gallardo-Escárate
SEA LICE INFECTED FROM DIFFERENT ATLANTIC SALMON PHENOTYPES SHOWED DIFFERENT MICROBIOME AND TRANSCRIPTOME SIGNATURES
- 1:45 Joy Becker**, Dorothea Megarani, Shannon Gray, Hannah Siler, Paul Hick, Kuttichantran Subramaniam
REDUCING TRANSBOUNDARY RISK OF INFECTIOUS SPLEEN AND KIDNEY NECROSIS VIRUS *Megalocytivirus pagrus 1* IN AUSTRALIA
- 2:00 Sara Ximena Amortegui Umana**, Sharon Karniely, Avi Eldar, Eran Bacharach, Irene Salinas
TROUT GRANULOMATOUS VIRUS (TGV) INFECTION CAUSES DISRUPTION OF GILL MORPHOLOGY AND IMMUNITY IN RAINBOW TROUT
- 2:15 Yogesh Chander**, Alyssa Hassinger, Joe Walker, Kurt Throckmorton, Mark Liles, Anita Kelly, Timothy Bruce, David Mead
AqPathDx: DEVELOPMENT OF A LAMP BASED DIAGNOSTIC KIT FOR RAPID DETECTION OF FISH PATHOGENS

- 2:30 José Ordóñez**, Fred Shopnitz, Cortney L. Ohs
EVALUATION OF ANESTHESIA PROTOCOLS FOR HANDLING TWO MARINE BAITFISH SPECIES: PIGFISH *Orthopristis chrysoptera* AND PINFISH *Lagodon rhomboides*
- 2:45 Vincent Teye**, John Kelso, Robert Durborow, Tifani McKay, Gunnar Psumny, Lucien Blakemore, Adetola Ogundipe
DETERMINING EFFECTIVE SALT (NACL) TREATMENT CONCENTRATIONS FOR COLUMNARIS INFECTIONS IN LARGEMOUTH BASS *Micropterus nigricans*
- 3:00 BREAK**
- 3:30 Adetola Ogundipe**, Robert Durborow, John Kelso, Tifani McKay, Vincent Teye, Gunnar Psumny
PROVIDING BETTER ACCESS TO MEDICATED FEED FOR KENTUCKY AQUACULTURISTS AND A SUBSEQUENT SURVEY OF THEIR OPINIONS AND PERCEPTIONS OF THIS SERVICE
- 3:45 George Selden**, Roc Camezid
THE APPLICATION OF KAOLIN CLAY IN TROUT HATCHERIES TO MINIMIZE *Flavobacterium* INFECTIONS AND MORTALITY IN TROUT FRY
- 4:00 Md Inja-Mamun Haque**, Ozgur Erdogan, Hridi A. Biswas, Todd Sink, Haitham H. Mohammed
GENOTYPING AND ANTIMICROBIAL SUSCEPTIBILITY OF COLUMNARIS-CAUSING BACTERIA ISOLATES FROM TEXAS AQUACULTURE AND SPORT FISH
- 4:15 Taylor Heckman**, Ruth Milston-Clements, Zeinab Yazdi, Alvin Camus, Kelsey Anenson, Hugh Mitchell, Mark Adkison, Jerri Bartholomew, Esteban Soto
FLORFENICOL AND ERYTHROMYCIN MEDICATED FEEDS ARE SIMILARLY EFFICACIOUS IN REDUCING MORTALITY FROM *Lactococcus petauri* INFECTIONS IN RAINBOW TROUT *Oncorhynchus mykiss*
- 4:30 Arman Hossain**, Md Abdullah AL Mamun, Sarker Mohammad Ibrahim Khalil, M M Mahbub Alam, Shamima Nasren, Jaima Zinat
STUDIES ON THE PARASITIC FAUNA OF OPEN WATER FISHES IN THE NORTHEAST BANGLADESH

CATFISH

Sunday, March 9 8:30 AM - 3:15 PM Studio 8

Chairs: Luke Roy, Taryn Garlock

- 8:30 Bradley Richardson**, Matt Griffin, Charles Mischke, Celene Slifka, Graham Rosser, Sujita Balami, Ambika Tiwari, Monica Wood, David Wise
PARASITISM CORRELATED WITH HIGHER SUSCEPTIBILITY TO REPEATED LOW-DOSE COPPER SULFATE TREATMENTS IN MARSH RAMSHORN SNAIL *Planorbella trivolvis*
- 8:45 Matt J. Griffin**, Logan R.S. Robison, Charles C. Mischke, Bradley M. Richardson, Ethan T. Woodyard, Jonah A. Nguyen, Divya Rose, James C. Valentine, Sujita Balami, Ambika Tiwari, Celene Slifka, T. Graham Rosser, David J. Wise
TREMATODE MANAGEMENT IN CATFISH AQUACULTURE
- 9:00 Ellis Nabi**, Luke Roy, Anita Kelly, Tham Hoang
ASSESSING THE EFFECTS OF DIFFERENT WATER HARDNESSES ON COPPER TOXICITY TO THE MARSH RAMS-HORN SNAIL *Planorbella trivolvis*
- 9:15 Andrew Barrick**, Sayem Ahmed, Tham Honag
SENSITIVITY OF CYANOBACTERIA TO HERBICIDES COMMONLY USED IN AQUACULTURE PONDS
- 9:30 Md Sayem Ahmed**, Andrew Barrick, Tham Hoang
RELATIVE SENSITIVITY OF CYANOBACTERIA TO COPPER
- 9:45 James T. Tuttle**, Timothy J. Bruce, Luke A. Roy, Hisham A. Abdelrahman, Julio C. García, Anita M. Kelly
EFFICACY OF A COMMERCIAL WATER CONDITIONER ON TRANSPORTATION-, TEMPERATURE-, AND BACTERIAL CHALLENGE-STRESS RESPONSES OF *Ictalurus punctatus* FINGERLINGS
- 10:00 Basant Gomaa**, Hossam Abdelhamed, Mark Lawrence
IMPROVING THE VACCINE EFFICACY OF DOUBLE RECOMBINANT ESC-NDKL1 TO PROTECT CHANNEL CATFISH AGAINST MOTILE AEROMONAS SEPTICEMIA
- 10:15 BREAK**
- 11:00 Kyle R. Wood**, V. MacKenzie Tackett, Kaylan Martin, Samitha S.N. Liyanage, Ying Zhang, Benjamin H. Beck, Rex Dunham, Matthew K. Litvak, Luke A. Roy, Xu Wang, Ian A.E. Butts
PATERNAL IMPACTS ON INDUSTRY-RELEVANT OFFSPRING PERFORMANCE TRAITS USING BLUE CATFISH *Ictalurid furcatus* CRYOPRESERVED SPERM

SUNDAY

- 11:15 Ying Zhang**, Kyle R. Wood, Thu Nguyen, Luke Roy, Ian A.E. Butts, Xu Wang
TRANSCRIPTOME AND DNA METHYLOME SIGNATURES OF HIGH REPRODUCTIVE PERFORMANCE IN CRYOPRESERVED BLUE CATFISH SPERM
- 11:30 Xu Wang**, Ying Zhang, Baofeng Su, Thu Nguyen, Mei Shang, Tim Bruce, Rex Dunham
ELUCIDATING THE GENOMIC BASIS OF ENVIRONMENT-DEPENDENT HETEROSIS TO INFORM GENETIC ENHANCEMENT IN CATFISH FOR AQUACULTURE PRODUCTION
- 11:45 Rex Dunham**, Ian A.E. Butts, Kate B. Pottle, Darshika Udari Hettiarachchi, Baofeng Su, Mei Shang, Misha Soman, Hamza Dilawar, Nadeen Abdo, Dhanuka Hewage, Ahmed Shaaban
XENOGENESIS FOR EFFICIENT PRODUCTION OF HYBRID CHANNEL CATFISH *Ictalurus punctatus*, ♀ BLUE CATFISH *I. furcatus*, ♂ EMBRYOS AND SPAWNING OF DIFFICULT TO BREED AQUACULTURE SPECIES
- 12:00 Uthpala Padeniya**, Allen Davis, Timothy Bruce, Anita Kelly, Luke Roy
EFFECT OF ELEVATED WATER TEMPERATURE ON PERFORMANCE AND IMMUNOLOGICAL PARAMETERS OF CHANNEL CATFISH *Ictalurus punctatus* AND HYBRID CATFISH *I. punctatus* × *I. furcatus* FED DIFFERENT ANIMAL PROTEIN SOURCES
- 12:15 Magida Tabbara**, Trenton Corby, Sidra Nazeer, Abigeal Adeyemi, Timothy Bruce, D. Allen Davis
ASSESSING THE EFFECTS OF FERMENTED CORN PROTEIN ON CHANNEL CATFISH *Ictalurus punctatus* GROWTH, WHOLE BODY COMPOSITION, BLOOD BIOCHEMISTRY, AND DISEASE RESISTANCE
- 12:30 LUNCH**
- 1:30 Yesutor Soku**, Miles Lange, Craig Shoemaker, Ida Phillips, Jason Abernathy, Abdelrahman Mohamed
IMPACT OF NUTRITIONAL STATUS ON THE PATHOGENESIS AND SEVERITY OF MOTILE *Aeromonas* SEPTICEMIA IN CHANNEL CATFISH *Ictalurus punctatus*
- 1:45 Uttam Deb**, Fms Abdal, Lin Xie
IMPACT OF INFLATION ON THE COMPETITIVENESS OF U.S. FARM-RAISED CATFISH PRODUCTS
- 2:00 Fatin Fahim**, Tiluttom Bhattacharjee, Michele Jones, Kashyap Adhikari, Sujan Bhattacharai, Yathish Ramena, Ram Babu Kurapati, Amit Kumar Sinha
ALLEVIATING AMMONIA TOXICITY IN CATFISH FARMING: PROTECTIVE ROLE OF ELEVATED WATER pH ON GROWTH AND PHYSIOLOGICAL PERFORMANCE

- 2:15 Tiluttom Bhattacharjee**, Fatin I. Fahim, Michele Jones, Kashyap Adhikari, Sujan Bhattarai, Yathish Ramena, Ram Babu Kurapati, Amit Kumar Sinha
ELEVATING WATER pH TO MITIGATE IRON TOXICITY: A SUSTAINABLE SOLUTION FOR CATFISH FARMING IN IRON-CONTAMINATED WATER
- 2:30 Baba Usman Ibrahim**, Dennis Balogu, Abdu Yunusa
COMPARATIVE GROWTH ASSESSMENT OF AFRICAN CATFISH *Clarias gariepinus* FED SWEET POTATO *Ipomea batata* LEAF MEAL AND RICE BRAN AS ALTERNATIVE FEED MEAL
- 2:45 Suja Aarattuthodi**, Brian Bosworth, Ganesh Kumar, Anita Nalamalapu
EFFICACY DETERMINATION OF A DISINFECTANT AGAINST CHANNEL CATFISH VIRUS BY *IN VITRO* AND *IN VIVO* METHODS
- 3:00 BREAK**
- 3:00 Allison Wise Addison**, Troy Bader, Craig Shoemaker, Benjamin Beck
EVALUATION OF THE ROLE OF IMMUNE SERA IN PROVIDING PROTECTION AGAINST *Aeromonas hydrophila* IN CHANNEL CATFISH *Ictalurus punctatus*

U.S. MARINE FINFISH AQUACULTURE SPECIAL SESSION

Sunday, March 9 8:30 AM - 5:30 PM Galerie 2

Chairs: Fernando Paredes, Li Sun (Alyson) Chin

- 8:30 Sagun Chhetri**, Andrew J. Ray
INFLUENCE OF CROWDING STRESS ON THE GROWTH PERFORMANCE AND HEMATOLOGICAL PARAMETERS OF OLIVE FLOUNDER *Paralichthys olivaceus* IN LAND-BASED INTENSIVE RAS
- 8:45 Uchechukwu Ohajiudu**, Reginald Blaylock, Angelos Apeitos, Eric Saillant
SEXUAL GROWTH DIMORPHISM IN JUVENILE SOUTHERN FLOUNDER *Paralichthys lethostigma*
- 9:00 Neriah Nicholas**, Paul Wills, Carlie Perricone
ASSESSMENT OF MORPHOLOGICAL DIFFERENCES AND GENETIC DIVERSITY IN FLORIDA POMPANO *Trachinotus carolinus*
- 9:15 Arnold J. Gutierrez**, Cristhian San Andres, Khanh Nguyen, Jairo Gonzalez, Melanie Rhodes, Allen Davis
EFFECT OF VARYING DIETARY ENZYME INCLUSION LEVELS ON THE GROWTH PERFORMANCE OF FLORIDA POMPANO *Trachinotus carolinus*?
- 9:30 Trinh Ngo**, Marty Riche, Timothy Bruce, Allen Davis
GROWTH PERFORMANCE, BLOOD CHEMISTRY AND GUT MICROBIOTA OF FLORIDA POMPANO *Trachinotus carolinus* FED DIFFERENT LEVELS OF CORN FERMENTED PROTEIN AND YEAST DIETS

- 9:45 Blaine Suehs**, Pedro L.P.F. Carvalho, Tara McNeil, Gabriel Bake, Jeffery K. Tomberlin, Delbert Gatlin III
PERFORMANCE OF JUVENILE RED DRUM *Sciaenops ocellatus* FED BLACK SOLDIER FLY LARVAE MEALS PRODUCED ON SUBSTRATES WITH VARIOUS SEAFOOD PROCESSING PRODUCTS
- 10:00 BREAK**
- 11:00 Luke Townsend**, Mike Graham, Luke Gardner, Cheryl Logan, Matt Hoehn, Kevin Hinterman, Ron Johnson, Scott Hamilton
INVESTIGATING IDEAL DIET AND TEMPERATURE OF MONKEYFACE PRICKLEBACKS *Cebidichthys violaceus* FOR COMMERCIAL FINFISH AQUACULTURE
- 11:15 Daniel Ward**, Michael Coute, Beth Phelan, Delan Boyce, Ehren Habeck, Christopher Chambers
TAUTOG *Tautoga onitis* RESEARCH INTO EARLY LIFE STAGE STRATEGIES: BROODSTOCK, SPAWNING, LARVAL FEEDS AND JUVENILE CULTURE CONDITIONS
- 11:30 Kevin Stuart**, Mark Drawbridge
EVALUATION OF AN OPEN FORMULA REFERENCE DIET FOR CALIFORNIA YELLOWTAIL *Seriola dorsalis* BROODSTOCK
- 11:45 Benjamin Panitz**, Li Sun Chin, Kevin Stuart, Mark Drawbridge, Paul Wills
REVOLUTIONIZING FISH EGG QUALITY ASSESSMENT: RAPID FATTY ACID DETECTION WITH RAMAN SPECTROSCOPY AND AI
- 12:00 Matt Hawkyard**, Kevin Stuart, Spencer Kubo, Mark Drawbridge
COMPARISON OF COMMERCIALY AVAILABLE MICRODIETS WITH AN OPEN FORMULA REFERENCE DIET WHEN WEANING SERIOLA FROM LIVE FEEDS
- 12:15 Spencer Kubo**, Kevin Stuart, Mark Drawbridge, Matt Hawkyard
THE EFFECTS OF PROTEIN COATED MICROPARTICULATE DIETS (PCMD) ON THE GROWTH, SURVIVAL, WHOLE-BODY NUTRIENT CONCENTRATIONS AND PROTEIN REGULATION OF CALIFORNIA YELLOWTAIL *Seriola dorsalis* LARVAE
- 12:30 LUNCH**
- 1:30 Jennica Lowell Hawkins**, Daren Garriques, Neil Anthony Sims
A NEW FISH TO FRY: THE BRASSY CHUB *Kyphosus vaigiensis* IS READY FOR COMMERCIALIZATION
- 1:45 Nasir Kureshy**
RED DRUM *Sciaenops ocellatus* AQUACULTURE IN THE UNITED STATES – CHALLENGES AND OPPORTUNITIES

- 2:00 **Nicole Kirchoff**
COULD ATLANTIC CROAKER *Micropogonias undulatus* BE THE NEXT BIG MARINE FINFISH SUCCESS STORY?

- 2:15 **John Stieglitz**, Eva Dickie, Luiz Anchieta da Silva, Carlos Tudela, Ronald Hoenig, Daniel Benetti
MARINE FINFISH SPECIES SELECTION FOR A VIABLE U.S. AQUACULTURE INDUSTRY: CRITICAL CONSIDERATIONS AND STRATEGIES FOR DEVELOPMENT

- 2:30 **Jonathan van Senten**, Carole Engle, Noah Boldt, Michael Schwarz
RESEARCH NEEDED TO ADVANCE MARINE FINFISH AQUACULTURE IN THE U.S.: WHAT DO ECONOMIC ANALYSES SHOW?

- 2:45 **Nicholas Romano**
INTRODUCING NEW LEAD SCIENTIST FOR THE WARMWATER MARINE FINFISH PROJECT AT USDA-ARS

- 3:00 **BREAK**

- 3:30 **Daniel Wieczorek**, Kenneth Riley
STRATEGIC PRIORITIZATION FOR RESEARCH AND DEVELOPMENT OF CANDIDATE MARINE FINFISH FOR AQUACULTURE DEVELOPMENT

- 3:45 **SHAPING THE FUTURE OF U.S. MARINE FINFISH AQUACULTURE: A STAKEHOLDER ROUNDTABLE**
Moderator: Nicholas Romano (USDA-ARS Research Leader)

GENERAL AQUACULTURE CONTRIBUTED - 3

Sunday, March 9 8:30 AM - 10:00 AM Galerie 1
Chair: TBA

- 8:30 **Zexin Jiao**, Robert Mukiibi, Manu Gundappa, James Prendergast, Luca Bargelloni, Diego Robledo, Daniel Macqueen
THE STRUCTURAL VARIATION LANDSCAPE IN THE EUROPEAN SEABASS *Dicentrarchus labrax* GENOME AND ITS POTENTIAL ROLE IN DISEASE RESISTANCE

- 8:45 **Nishan Kafle**, Amit Yadav, Vikas Kumar, Amit Sinha
DIETARY BENTONITE MITIGATES HIGH-IRON WATERBORNE TOXICITY IN CHANNEL CATFISH *Ictalurus punctatus*

- 9:00 **Angela Bowers**, Tahvo Wilson
DETERMINING SITE SUITABILITY AND PROCESSING POTENTIAL AT ALASKA'S SALMON HATCHERY RELEASE SITES FOR THE INTEGRATION OF MARICULTURE SPECIES

SHRIMP GENOMES AND EPIGENOMES (ShrimpENCODE)

Sunday, March 9 8:30 AM - 5:30 PM Studio 7

Chairs: Acacia Alcivar-Warren, Kathy Tang

- 8:30 Acacia Alcivar-Warren, Kathy F.J. Tang**
SHRIMP GENOMES AND EPIGENOMES (ShrimpENCODE) SESSION: FROM WHOLE GENOME SEQUENCES OF PENAEID SHRIMP TO EPIGENETICS – RECOGNITION TO STUDENTS AND “OUTSTANDING ONE HEALTH RESEARCHERS IN AQUACULTURE AND FISHERIES” AWARDEES
- 8:45 Satoshi Kawato, Ikuo Hirono**
ENDOGENOUS NIMAVIRUSES: INHABITANTS OF CRUSTACEAN REPETITIVE DNA
- 9:15 Jianbo Yuan, Yang Yu, Shihao Li, Xiaojun Zhang, Chuntao Zhang, Roujing Li, Jie Hu, Shuqing Si, Chengyi Zhang, Jianhai Xiang, Fuhua Li**
SHRIMP SHAPES A RESISTANCE TRAIT AGAINST VIBRIOSIS BY MEMORIZING THE COLONIZATION RESISTANCE OF INTESTINAL MICROBIOTA
- 9:45 Acacia Alcivar-Warren, Weidong Bao, Jianbo Yuan, Nitsara Karoonuthaisiri**
REPETITIVE ELEMENTS FROM THE FIRST SPECIFIC PATHOGEN-FREE SHRIMP *Penaeus vannamei* PRODUCED IN THE UNITED STATES: CHARACTERIZATION OF *Outcast-1_LVa* NON-LTR RETROTRANSPONON SIMILAR TO RETROTRANSPONON NLRS PUTATIVELY ASSOCIATED WITH ABDOMINAL SEGMENT DEFORMITY DISEASE (ASDD) OF FARMED *P. vannamei* FROM THAILAND
- 10:00 BREAK**
- 11:00 Acacia Alcivar-Warren, Weidong Bao, Jianbo Yuan, Ximing Guo**
DNA TRANSPOSONS IN THE GENOME OF THE FIRST SPECIFIC PATHOGEN-FREE (SPF) SHRIMP *Penaeus vannamei* PRODUCED IN THE UNITED STATES
- 11:15 Acacia Alcivar-Warren**
PUTATIVE ENDOGENOUS VIRAL ELEMENTS (EVE) PRESENT IN FIVE WHOLE GENOME SHOTGUN (WGS) DATABASES AVAILABLE FOR THE PACIFIC WHITELEG SHRIMP *Penaeus vannamei*
- 11:30 Kathy Tang, Jee Han, Acacia Alcivar-Warren**
DEVELOPMENT OF A DISEASE STRATEGY MANUAL FOR SHRIMP HEPATOPANCREATIC MICROSPORIDIOSIS (HPM)

- 11:45 Garner Algo Alod**, Sana Matsumoto, Keiichiro Koikai, Hidehiro Kondo, Ikuo Hirono
FIRST REPORT OF WHITE MUSCLE DISEASE CAUSED BY *Photobacterium damselae* subsp. *damselae* IN KURUMA SHRIMP *Penaeus japonicus*
- 12:00 Ximing Guo**, Acacia Alcivar-Warren
SEX DETERMINATION AND SEX DIFFERENTIATION OF *Penaeus vannamei* SHRIMP
- 12:15 Acacia Alcivar-Warren**, Ximing Guo, Fuhua Li, Jianbo Yuan, Nitsara Karoonuthaisiri, Weidong Bao, Marcos De Donato, Hectorina Rodulfo, Sandra Shumway
PENAEID SHRIMP GENOMICS AND EPIGENOMICS – WHOLE REFERENCE GENOMES NEEDED FOR THE ECONOMICALLY IMPORTANT *PENAEUS* SPECIES
- 12:30 LUNCH**
- 1:30 Judith González-Benítez**, Alicia Peraza-Galán, Carmen Bolán-Mejía, Marcelino Ruiz Dominguez, Bruno Gómez-Gil
Vibrio campbellii STRAIN M270210 CAN DEVELOP THE CHARACTERISTIC CLINICAL SIGNS AND MORTALITY OF ACUTE HEPATOPANCREATIC NECROSIS DISEASE (AHPND) DISEASE OF SHRIMP
- 1:45 Carlos Estrella**, José A. Huerta-Ocampo, Esaú Bojórquez-Velázquez, Eliel Ruiz-May, Liliana Rojo-Arreola, Humberto González-Ríos, Adriana Muhlia-Almazán
STEPWISE INVOLVEMENT OF PEPTIDASES IN THE DIGESTIVE PROCESS OF THE WHITELEG SHRIMP *Penaeus vannamei*
- 2:00 Eduarda Sousa**, Ana Vinhal, Thaís Rodrigues, Jean-Marc Chatel, Vasco Azevedo, Marcus Viana
APPLICATION OF *Faecalibacterium* GENOMICS FOR HUMAN AND SHRIMP GUT HEALTH
- 2:15 Gober Asuncion**, Kathy Tang, Victoria Alday-Sanz, Mayra Galindo, Miriam Alcivar-Arteaga, Acacia Alcivar-Warren
ENDOGENOUS VIRUS ELEMENTS (EVE) OF INFECTIOUS HYPODERMAL AND HEMATOPOIETIC NECROSIS VIRUS (IHNV-EVE) IN THE GENOMES OF *Penaeus vannamei* AND *P. monodon*: INTERACTIONS WITH A TRANSPOSABLE ELEMENT – COMMENTS ON ISSUES RELATED TO DELISTING OF IHNV AS A NOTIFIABLE DISEASE BY THE WORLD ORGANIZATION FOR ANIMAL HEALTH (WHAO)

- 2:30 Mayra Galindo**, Acacia Alcivar-Warren, Gober Asuncion, Victoria Alday-Sanz, Miriam Alcivar-Arteaga, Kathy Tang
WHITE SPOT SYNDROME VIRUS (WSSV) GENOMES FROM ECUADOR, PERU, CHINA AND MEXICO ARE NOT INTEGRATED IN THE GENOME OF FIVE PENAEID SHRIMP SPECIES, BUT ENDOGENOUS VIRAL ELEMENTS (EVE) OF WSSV (WSSV-EVE) ARE FOUND IN THE TRANSCRIPTOME OF THE FIRST SPECIFIC PATHOGEN-FREE (SPF) *Penaeus vannamei* DOMESTICATED IN THE UNITED STATES
- 2:45 Ariadna X. Aguirre**, Sonia Araceli Soto-Rodriguez, Jean Pierre González Gómez, Cristóbal Chaidez, Bruno Gomez-Gil, Carlos Omar Lomelí Ortega
CHARACTERIZATION OF BACTERIOPHAGE-RESISTANT STRAINS FROM BACTERIOPHAGES TARGETING ACUTE HEPATOPANCREATIC NECROSIS DISEASE (AHPND)-CAUSING *Vibrio* sp.
- 3:00 BREAK**
- 3:30 Brenda Rodriguez**, Monica Arteaga-Cedeno, Gober Asuncion, Mayra Galindo, Miriam Alcivar-Arteaga, Acacia Alcivar-Warren
DENGUE VECTORS CO-INFECTING SHRIMP VIRUSES: EPIDEMIOLOGICAL CONTROL CHALLENGES IN THE CONTEXT OF CLIMATE CHANGE AND CONTAMINATION BY INSECTICIDES AND PESTICIDES USED FOR COMBATING INSECTS SUCH AS GLYPHOSATE-BASED HERBICIDES
- 3:45 Monica Arteaga-Cedeno**, Acacia Alcivar-Warren
UNLOCKING THE POTENTIAL OF *Penaeus vannamei* SHRIMP BREEDING THROUGH GENOMIC SELECTION
- 4:00 Hectorina Rodulfo**, Carlos Fajardo, Marcos De Donato, Acacia Alcivar-Warren
LIMITATIONS OF IMPLEMENTATION OF RNA INTERFERENCE (RNAi) IN SHRIMP AQUACULTURE

CRUSTACEANS

Sunday, March 9 8:30 AM - 10:00 AM Studio 8

Chair: Andrew Ray

- 8:30 Mohammad Abdul Baki**, Md. Masudul Haque, Shilpi Saha, Anirban Sarker
ASSESSMENT OF SOFT-SHELL MUD CRAB *Scylla olivacea* FARMING TREND
IN THE SOUTHWEST COASTAL REGION OF BANGLADESH
- 8:45 Naveen Nivas**, Dinesh Kaippilly, Dung Le Viet
DEVELOPMENT OF SUSTAINABLE MUD CRAB RAS UNIT
- 9:00 Angel Colon-Zapata**, Grant Blank, Dennis McIntosh, Gulnihal Ozbay
GROWTH AND SEXUAL MATURITY OF CRAYFISH *Faxonius immunis* EXPOSED
TO LOW pH
- 9:15 James Dimond**, Katelyn Bosley, Emily Buckner, Sarah Grossman, Elizabeth Tobin
SUSTAINING LONG-TERM YIELD OF THE PUGET SOUND DUNGENESS CRAB
FISHERY BY ACCOUNTING FOR POTENTIAL MIXED-STOCK POPULATION
STRUCTURE
- 9:30 Juan Ramos**, Gulnihal Ozbay, Ali Parsaeimehr, Tahera Attarwala,
Kayla McKinley, Marcus Teat
POPULATION CHARACTERISTICS ASSESSMENT ON BLUE CRABS *Callinectes*
sapidus AND VIRUS IDENTIFICATION OF *Callinectes sapidus* REOVIRUS 1
(CSRV1) USING PCR ANALYSIS IN DELAWARE INLAND BAYS
- 9:45 Jiang-Feng Lan**
A DEVIL AND AN ANGEL, HEMOLYMPH BACTERIA IN *Procambarus clarkii*

SCALLOPS - CONTRIBUTED

Sunday, March 9 8:30 AM - 10:00 AM Balcony J

Chair: Steve Geiger

- 8:30 Denis Grouzdev**, Emmanuelle Pales Espinosa, Umberto Rosani,
Tettelbach Stephen, Harrison Tobi, Jessica Goodheart, Christopher Hollenbeck,
Ami Wilbur, Emma Green-Beach, Bassem Allam
GENOMIC INSIGHTS INTO BAY SCALLOP *Argopecten irradians* POPULATION
STRUCTURE AND ENVIRONMENTAL ADAPTATIONS
- 8:45 Nichole Blackmer**, Jennifer Perry, Sue Ishaq, Kyle Brennan, Brian Beal,
Brea Salter, Tessa Houston, Sarah Zuidema, Kyle Pepperman,
Anne Langston Noll, Christopher Davis, Sydney Avena, Meredith White,
Cody Jourdet, Damian Brady, Erin Grey, Mark Dixon, Gary Wikfors,
Timothy Bowden
ATLANTIC SEA SCALLOP IMMUNE ONTOGENY AND ITS RELEVANCE TO
HATCHERY SURVIVAL RATES

- 9:00 Pierre Poitevin**, Florian Aulanier, Thomas Guyondet, Youenn Jezequel, Frédéric Olivier, Laurent Chauvaud, Philippe Archambault, Réjean Tremblay
 USING A DYNAMIC ENERGY BUDGET MODEL TO ASSESS THE RISKS OF SHIPPING NOISE ON GIANT SCALLOPS BEDS IN THE GULF OF ST. LAWRENCE
- 9:15 Max Zavell**, Adam Delargy, Sandra Shumway, Kevin Stokesbury
 DO DISCARDED SEA SCALLOP SHELLS SEQUESTER ATMOSPHERIC CO₂? HOW GREEN IS THE UNITED STATES SEA SCALLOP FLEET?

SHELLFISH AND (GOOD OR BAD) MICROBES

Sunday, March 9 8:30 AM - 10:00 AM Balcony M

Chairs: Marta Gomez-Chiarrin, Steph Smith

- 8:30 Jacob A. Cram**
 MICROORGANISMS LINKED TO HATCHERY DIE-OFFS AND THEIR ENVIRONMENTAL DISTRIBUTIONS
- 8:45 Jaypee Samson**, Julianna Sachero-Gomez, Fitri Daimboa, David Rowley, Marta Gomez-Chiari
 EXPLORING PATHOGENIC AND PROBIOTIC BACTERIA FROM BIVALVES TO PREVENT LARVAL MORTALITY IN HATCHERIES
- 9:00 Morgan Hawkins**, Sandra Brooke
 EFFECT OF PROBIOTICS ON LARVAL SURVIVAL, GROWTH, AND SETTLEMENT SUCCESS OF THREE SHELLFISH SPECIES
- 9:15 Jessica Coppersmith**, Evelyn Takyi, David Rowley, Marta Gomez-Chiari
 A PANGENOME FOR THE MARINE BACTERIUM *Phaeobacter inhibens* REVEALS CONSERVED GENES FOR HOST PROTECTION IN BIVALVE LARVICULTURE SYSTEMS
- 9:30 Sarah Gignoux-Wolfsohn**, Katrina Pagenkopp Lohan, Greg Ruiz, Mariah Kachmar, Lisa McManus
 A NEW MECHANISTIC MODEL OF OYSTER-PERKINSUS DYNAMICS UNDER CHANGING ENVIRONMENTAL CONDITIONS

MUSSELS

Sunday, March 9 8:30 AM - 12:30 PM Salon D

Chair: Carter Newell

- 8:30 Nicolas S. Anderson**, Julia M. Dovi, Dianna K. Padilla
COMBINED EFFECTS OF TEMPERATURE AND FOOD ON RIBBED MUSSEL
Geukensia demissa LARVAE
- 8:45 Emma Garrison**, Emmanuelle Pales Espinosa, Ian P. Dwyer, Matthew Sclafani,
Nils Volkenborn, Bassem Allam
CAN RIBBED MUSSEL VALVE GAPING SERVE AS A PROXY FOR BACTERIAL
CLEARANCE UNDER VARYING ENVIRONMENTAL CONDITIONS?
- 9:00 Tim Regan**, Ambre Chapuis, Morgan Bailey, Matthew A. Wale
THE EFFECTS OF ANTHROPOGENIC NOISE ON BLUE MUSSELS *Mytilus*
edulis RESPONSE TO *Vibrio splendidus* INFECTION
- 9:15 Elisa Duchesne**, Ramon Filgueira, Tiago Hori, Tillmann Benfey, Jasmine Talevi,
Noémie Sardano, Réjean Tremblay
METABOLIC AND METABOLOMIC RESPONSE OF TRIPLOID *Mytilus edulis*
FAMILIES TO HEATWAVES
- 9:30 Ambre Chapuis**, Rob Ellis, Tim Regan
EXPLORING GENETIC DIVERSITY AND HYBRIDISATION PATTERNS OF
MUSSELS IN NORTHERN SCOTLAND
- 9:45 Brian Beal**, Kyle Pepperman, Breanna Salter, Evan Young
THE DEVELOPMENT AND COMMERCIALIZATION OF A BLUE MUSSEL *Mytilus*
edulis HATCHERY IN MAINE, USA TO STRENGTHEN DOMESTIC MUSSEL
PRODUCTION
- 10:00 BREAK**
- 11:00 Flavie Perron**, Eric H. Ignatz, Violet Chilvers, Tillmann J. Benfey,
Réjean Tremblay, Tiago S. Hori, Ramón Filgueira
USING POLAR BODY EXTRUSION TIMING TO OPTIMIZE PRESSURE SHOCK
METHODS FOR INDUCING TRIPLOIDY IN BLUE MUSSELS *Mytilus edulis*
- 11:15 Robert Holmberg**, Abigail Tripler, Evan Young, Matthew Moretti, Reena John,
Kassandra Root, Rachael Smith, Maylee Sun, Kyle Pepperman, Brian Beal
IMPROVING RESILIENCE OF HATCHERY-REARED BLUE MUSSELS *Mytilus*
edulis TO OCEAN ACIDIFICATION WITH DIET AND SEAWATER BUFFERING
- 11:30 David A. Ernst**, Brian F. Beal, Erin K. Grey, LeAnn P. Whitney, Nichole N. Price
CHARACTERIZING THE DEVELOPMENTAL TRANSCRIPTOME AND
METHYLOME OF THE BLUE MUSSEL *Mytilus edulis*

11:45 Sharon Lynch, Dulani Wickramanayaka, Sarah Culloty
BOOM-BUST DYNAMICS IN NATIVE AND NON-NATIVE MUSSEL SPECIES
AND THEIR HYBRID CROSSES IN IRISH NEAR SHORE ENVIRONMENTS
OVER TWO DECADES

12:00 Carter Newell
CHALLENGES AND SOLUTIONS TO MUSSEL AND OYSTER AQUACULTURE
BIOLOGY, ENGINEERING AND BUSINESS: FOSTERING A CULTURE OF
INNOVATION

OYSTERS- CONTRIBUTED 2

Sunday, March 9 8:30 AM - 5:30 PM Salon E

Chairs: Bill Fisher, Jessica Pruet

8:30 Caitlyn Fontenot, Reginald Blaylock, Megan Gima
INTERACTIVE EFFECTS OF SALINITY AND CARBONATE CHEMISTRY
ON SURVIVAL AND GROWTH OF EASTERN OYSTER *Crassostrea virginica*
LARVAE

8:45 Coline Caillon, Cassandra Cerasia, Juliana Bucci, Cierra Westbrook,
Jonathan Puritz
EFFECTS OF MULTIPLE COASTAL STRESSORS ON EARLY LIFE-STAGE
EASTERN OYSTERS FROM NARRAGANSETT BAY

9:00 Sophia Montague, Sarah Gignoux-Wolfsohn, Julia McDonough, Thomas Miller,
Sarah Donelan
THE EFFECTS OF HYPOXIA AND WARMING ON THE GROWTH AND
NUTRIENT STORAGE OF THE EASTERN OYSTER *Crassostrea virginica*

9:15 Christopher Kirby, Stephen Geiger
WATER GATEKEEPING IN FLORIDA AND OBSERVABLE IMPACTS ON
OYSTER REEFS IN THE SOUTH FORK OF THE LOXAHATCHEE ESTUARY

9:30 Chet Rakocinski, Kathy VanderKooy, Geoffry Spooner
CLIMATE-RELATED VARIABILITY IN PRECIPITATION DRIVES EARLY
RECRUITMENT OF THE EASTERN OYSTER *Crassostrea virginica* IN
MISSISSIPPI

9:45 Andrew Griffith, Vernadette Fernandez-Alexie, Sandra Shumway
THE IMPACT OF ACUTE SALINITY STRESS ON EARLY-JUVENILE EASTERN
OYSTER RESPIRATION Q10

10:00 BREAK

- 11:00 Stephen Geiger**, Nicole Holmes
TIDAL SALINITY VARIATION MAY PROVIDE A BUFFER FROM LOW-SALINITY EVENTS ON OYSTER HABITAT IN RELATIVELY SHORT FLORIDA ESTUARIES
- 11:15 Beth Stauffer**, Shelby Perry, Megan La Peyre
IDENTIFYING ACUTE STRESSFUL CONDITIONS IN FOUR LOUISIANA OYSTER HABITATS FROM HIGH FREQUENCY DATA
- 11:30 Melissa Southworth**, Roger Mann, Mitchell Tarnowski
DECLINE AND RECOVERY OF THE CHESAPEAKE OYSTER POPULATION: UPDATING AN OLD METRIC
- 11:45 Roger Mann**, Melissa Southworth, John Thomas
EGG PRODUCTION IN SIZE TRUNCATED OYSTER POPULATIONS AND ITS RELATIONSHIP TO RECRUITMENT
- 12:00 Erica A. Levine**, Stephen P. Geiger
A COMPARISON OF GROWTH AND MORTALITY OF EASTERN OYSTERS *Crassostrea virginica* IN SOUTH FLORIDA ESTUARIES
- 12:15 William S. Fisher**, John F. Carriger
A BAYESIAN NETWORK ANALYSIS OF OYSTER HABITAT SUITABILITY
- 12:30 LUNCH**
- 1:30 Guillaume Bridier**, Jeff C. Clements, Luc Comeau, André L. Mallet, Claire E. Carver, Martin Mallet, Réjean Tremblay
OVERWINTERING SURVIVAL IN JUVENILE OYSTERS: UNDERSTANDING THE ROLE OF ENERGETIC PHYSIOLOGY FOR *Crassostrea virginica* SEED
- 1:45 Jordan Hollarsmith**, Rebecca Cates, Juliana Cornett, Courtney Hart, Cody Pinger, John Harley, Muriel Dittrich, Kelly Koehler, Kate Laboda
SEASONAL DYNAMICS OF A NOVEL OYSTER GROWING REGION
- 2:00 Alexandria Marquardt**, Melissa Southworth, Andrew Scheld, Andrew Button, Roger Mann
OYSTER REEF RECOVERY: RESPONSES TO SHELL REPLENISHMENT ON PUBLIC FISHING GROUNDS
- 2:15 Kelsey Kuykendall**, Eric N. Powell, Sara M. Pace, Xiaodong Zhang, Emma B. Coltman
EXPLORING THE IMPACT OF REEF COMPOSITION ON THE RECOVERY OF A DECLINING *Crassostrea virginica* REEF IN THE MISSISSIPPI SOUND
- 2:30 Alexandria Ambrose**, Daphne Munroe
VIDEO DOCUMENTATION OF THE MARINE COMMUNITY USING AN OYSTER AND CLAM FARM AS HABITAT IN BARNEGAT BAY, NEW JERSEY

- 2:45 Allison Tracy**, Kristina Colacicco, Matthew Gray, Dylan Weber, Hannah Brunelle
BIODIVERSITY AND OYSTER HEALTH ON AQUACULTURE LEASES AND RESTORED SANCTUARY REEFS IN CHESAPEAKE BAY
- 3:00 Ronald D. Zweig**, Hilda Maingay, Earle Barnhart, Barry Antonio Costa-Pierce
AN ECOLOGICAL APPROACH FOR RESTORATION AND MAINTENANCE OF COASTAL WATER QUALITY THROUGH ADOPTION OF SHELLFISH AQUACULTURE COMBINED WITH UPSTREAM NUTRIENT CAPTURE AND REUSE

AQUACULTURE EDUCATION, EXTENSION AND INFORMATION TRANSFER

Sunday, March 9 8:30 AM - 5:30 PM Balcony K
Chairs: Jonathan Roques, Petronella Ketunen, Forrest Wynne

- 8:30 Emily Whitmore**, Anne Langston Noll, Christopher Davis, Meggan Dwyer, Corinne Noufi
CLIMATE IMPACTS, OPPORTUNITIES AND ADAPTATIONS FOR THE MAINE AQUACULTURE SECTOR
- 8:45 Maya Pelletier**, Nichole Sawyer, Denise Cilley, Chris Davis, Anne Langston Noll
BUILDING A ROBUST PIPELINE TO AQUACULTURE CAREERS IN MAINE THROUGH WORKFORCE DEVELOPMENT AND EDUCATION INITIATIVES
- 9:00 Amanda E. Glazier**
MARICULTURE WORKFORCE DEVELOPMENT THROUGH EXPERIENTIAL LEARNING AT A COLLEGE COMMUNITY CAMPUS IN ALASKA
- 9:15 Emma Cross**, Alysa Mullen, Tessa Getchis
DEVELOPING A HIGHER EDUCATION AQUACULTURE PATHWAY IN CONNECTICUT TO INCREASE AQUACULTURE WORKFORCE DEVELOPMENT
- 9:30 Cole Daleiden**, Noel Novelo, Jeffrey Warner, Ayomide Taiwo, Andre Rodriguez
SUPPORTING SMALL-SCALE AQUACULTURE BY MAPPING ONLINE HATCHERY RESOURCES
- 9:45 Hugh Cowperthwaite**
GLOBAL INSIGHTS, LOCAL IMPACT: TECHNOLOGY TRANSFER REVOLUTIONIZING MAINE'S AQUACULTURE INDUSTRY
- 10:00 BREAK**
- 11:00 Jessica Ericson**, Glenis Paul, Craig Prichard, Norman Ragg
SHELLPULSE: A CLIMATE CHANGE OUTREACH PROGRAMME THAT CONNECTS COMMUNITIES WITH SHELLFISH AQUACULTURE

- 11:15 Annie Schatz**, Cathlyn Davis, Melissa Good, Sherry Larkin, Elizabeth Lenz, Shauna Oh, Laura Picariello, Mario Marquez, Susan White, Gayle Zydlewski, Jenna Clark, Fredrika Moser
CONNECTING SEA GRANT, THE NATIONAL CENTERS FOR COASTAL OCEAN SCIENCES, AND COASTAL-OCEAN COMMUNITIES TO IMPROVE SUSTAINABLE AQUACULTURE SITING AND DEVELOPMENT PROCESSES
- 11:30 Rose Omidvar**, Catherine Campbell, Razieh Farzad
UNDERSTANDING AQUACULTURE PRODUCERS' PERCEPTION AND ADOPTION CRITERIA FOR NOVEL AQUAFEED
- 11:45 Herbert Quintero**, Amy Shambach
FISH FARM TOURS AS A LEARNING TOOL
- 12:00 George B. Brooks Jr.**
INSIGHTS ON TRANSFORMATIVE STRATEGIES TO GROW AQUACULTURE IN AN URBAN AREA
- 12:15 Joyce Njenga**, Meenakshisundaram Menaga, Jonathan Munguti
AQUACULTURE, A PROMISING SOLUTION FOR FOOD INSECURITY, POVERTY AND MALNUTRITION IN KENYA
- 12:30 LUNCH**
- 1:30 Robert Durborow**, Sophia Okoh, Vincent Teye, Gunnar Psumny, Adetola Ogundipe, Hamid Marvasti
INCORPORATING MACHINE LEARNING INTO A FISH HEALTH DATABASE
- 1:45 Barbara I. Evans**
AQUACULTURE IS AN EDUCATION
- 2:00 Xander LaComb**, M. Scarlett Tudor, Tish Carr, Jennifer Isherwood
TWO-EYED SEEING AND ITS BENEFITS IN AQUACULTURE AND FISHERIES YOUTH DEVELOPMENT AND OUTREACH
- 2:15 Kenneth Thompson**, Carl Webster
USING A CLASSROOM AQUAPONICS PROJECT TO IMPROVE URBAN (CITY) STUDENTS' PERCEPTION OF STEM DISCIPLINES AND CAREER PATHWAYS
- 2:30 Jonathan Roques**, Chiara Fasoli, Kristina Sundell, Karl-Johan Skogh
INTEGRATING AQUAPONICS INTO SWEDISH 8TH GRADE CURRICULUM: A PRACTICAL TEACHING TOOL
- 2:45 Ayomide Taiwo**, Cole Daleiden, Jeffery Warner, Noel Novelo
NURTURING FUTURE AQUACULTURE PROFESSIONALS: MENTORSHIP OF GRADUATE STUDENTS ALONGSIDE HIGH SCHOOL STUDENTS

3:00 BREAK

3:30 Victor Okomoda, Markose Zewdie, James Fasakin, Sunil Siriwardena, Shehu Akintola, Rodrigue Yossa, Leila Basti
WOMEN AND YOUTH PARTICIPATION IN COASTAL AQUACULTURE ACTIVITIES IN SOUTHWEST NIGERIA

3:45 Kevin Fitzsimmons, W. Boeing, R.C. Schultz
UPDATE – NEXT GEN USDA – PREPARING HISPANIC AND OTHER UNDERREPRESENTED STUDENTS IN FISHERIES AND AQUACULTURE

4:00 Jasmine Iniguez
ESTABLISHING AQUACULTURE EDUCATION IN NORTHERN CALIFORNIA AT COLLEGE OF THE REDWOODS

4:15 Jonathan Roques, Viviane Verlhac-Trichet, Camille Leblanc, Barry Costa Pierce, Kristina Sundell
THE NORDIC MASTER'S PROGRAM IN SUSTAINABLE PRODUCTION AND UTILISATION OF MARINE BIORESOURCES: A MODEL OF SUCCESSFUL INTER- AND TRANSDISCIPLINARY COLLABORATION IN HIGHER EDUCATION

4:30 Catherine Frederick, Scarlett Tudor, Emma Hauser, Adam Frederick, Amy Lang, Melissa Malmstedt, Carla Scocchi
COLLABORATIVE EDUCATION AND EXTENSION IN SUSTAINABLE AQUACULTURE: THE SAS2 PROJECT

4:45 Michaela Aschan
A MASSIVE OPEN ONLINE COURSE (MOOC) ON SUSTAINABLE AQUACULTURE FOR LOW TROPHIC SPECIES

5:00 Richard C. Shultz
AQUACULTURE GRANT ACTIVITIES: UPDATE FROM SANTA FE COMMUNITY COLLEGE'S CONTROLLED ENVIRONMENT AGRICULTURE PROGRAM

5:15 Tiffany Wood Mahler, Michael H. Schwartz, Jonathan van Senten
AQUACULTURE IN THE CLASSROOM: HOW SCHOOLS AND AQUACULTURE PROGRAMS CAN WORK TOGETHER FOR A SUSTAINABLE FUTURE

DIVERSITY AND INCLUSION IN U.S. AQUACULTURE

Sunday, March 9 8:30 AM - 12:30 PM Galerie 5
Chairs: George Brooks, Eric Saillant, Angela Caporelli

This session is organized by members of the Diversity and Inclusion (DI) committee of the United States Aquaculture Society (USAS) and welcomes all World Aquaculture Society members and conference participants. The goal of the session is to provide a safe and inclusive environment where questions related to diversity, equity, and inclusion in USAS and the U.S. aquaculture community at large, can be discussed freely. In this relaxed-fit forum, we welcome audience participation in a structured discussion of current issues, priority areas, and on-going diversity initiatives in the USAS.

The session will focus on the theme 'Resources and strategies to grow a diverse equitable, and inclusive U.S. aquaculture network' with a series of related presentations and a panel discussion.

SUNDAY

- 8:30** Eric Saillant, George Brooks, Angela Caporelli
INTRODUCTION AND UPDATES ON ACTIVITIES OF THE USAS DIVERSITY AND INCLUSION COMMITTEE
- 8:45** Steven G. Hughes
IMPROVING ACCESS TO AQUACULTURE CAREERS FOR UNDER-REPRESENTED GROUPS
- 9:00** Gulnihal Ozbay (Delaware State University), Dayan Perera (University of Arkansas Pine Bluff), Andrew Ray (Kentucky State University), David Cline (Auburn University), Aaron Pickett (Delaware State University), Angel Colon Zapata (Delaware State University), Rebecca Rivera (Delaware State University), Samuel GarciaVasquez (University of Arkansas Pine Bluff), USDA NIFA
PROGRAM ON EXPERIENTIAL LEARNING IN AQUACULTURE AND FISHERIES OF MINORITY STUDENTS FROM UAPB, DSU, AND KSU AT AUBURN UNIVERSITY
- 9:15** STUDENT PANEL DISCUSSION (Gulnihal Ozbay moderator)
- 9:30** Houston Bruck (USDA Farm Service Agency)
ACCESS TO CREDIT – FSA FARM LOAN LENDING OPTIONS FOR AQUACULTURE PRODUCERS
- 9:45** Michael Ricks, Marjorae Ball, Jo Ann Lawrence (Louisiana Small Business Administration)
SMALL BUSINESS ADMINISTRATION RESOURCES TO HELP SMALL BUSINESSES

- 10:00** Jonshell Johnson (Grow Dat Youth Farm)
GROW DAT YOUTH FARM PROJECT
- 10:15 BREAK**
- 11:00** James Gilmore (Bayard Management Group)
WITHSTANDING BARRIERS OF ENTRY AS A BEGINNING AQUACULTURE
FARMER IN A SPORTSMAN'S PARADISE
- 11:15** Michael Richard, Dimitri Celis, Hilary Nguyen (Growing local NOLA)
D AND I IN NEW ORLEANS URBAN AGRICULTURE
- 11:30** George Brooks (NxT Horizon)
INSIGHTS ON DEI INCLUSIVE STRATEGIES TO GROW AQUACULTURE IN
URBAN AREAS
- 11:45** Jason Pitre (Bayou Rosa)
HARVESTING A LEGACY
- 12:00** PANEL DISCUSSION (Ian Yue moderator)

GLOBAL/REGIONAL AQUACULTURE OVERVIEWS

Sunday, March 9 8:30 AM - 12:30 PM Salon A
Chairs: Antonio Garza de Yta, Yahira Piedrahita

- 8:30 Danielle Blacklock**
UNITED STATES AQUACULTURE OVERVIEW
- 8:45 Jose Fernandez Polanco**
MEDITERRANEAN MARINE FISH MARKET OVERVIEW
- 9:00 Catriona Mcleod**
AUSTRALIAN AQUACULTURE OVERVIEW
- 9:15 Luis Andres**
LATIN AMERICAN AQUACULTURE OVERVIEW
- 9:30 Etienne Hinrichsen**
AQUACULTURE IN AFRICA – IS IT GROWING FAST ENOUGH?
- 9:45 Kevin Fitsimmons**
TILAPIA AQUACULTURE OVERVIEW
- 10:00 BREAK**

- 11:00 Daniel Benneti**
MARINE FISH AQUACULTURE OVERVIEW
- 11:15 Joy Becker**, Cara Jeffrey, Charitha Pattiaratchi, Wayne O'Connor, Alexandra Campbell, Matthew Campbell, Erandi Pathirana, Nirooparaj Balachandran, Jayasinghe Asoka
CHALLENGES AND OPPORTUNITIES FOR SUSTAINABLE MARINE AQUACULTURE DEVELOPMENT FOR SRI LANKA
- 11:30 Penz Penz Kwan**
CHALLENGES FACED BY AQUACULTURE FARMERS IN MALAYSIA

eDNA

Sunday, March 9 8:30 AM - 10:00 AM Balcony L

Chair: Phoebe Jekielek

SUNDAY

- 8:30 Erin Grey**, Anaïs Lacoursière, Melissa Morrison, Robin Sleith, Karen James, Mike Kinnison, Dave Emerson, Kate Beard
NATIONAL AND INTERNATIONAL RESOURCES FOR EDNA APPLICATIONS TO AQUACULTURE
- 8:45 Phoebe Jekielek**, Nichole Price, Heather Leslie
QUANTIFYING eDNA OF SEA SCALLOP *Placopecten magellanicus* LARVAE AND ADULTS IN A LABORATORY SETTING
- 9:00 Phoebe Jekielek**, Nichole Price, Heather Leslie
eDNA METHODS CAN DETECT TEMPORAL AND SPATIAL VARIABILITY OF SEA SCALLOP *Placopecten magellanicus* DNA IN FARMED AND WILD POPULATIONS
- 9:15 Beth Stauffer**, Julia Sweet, Jennifer Raabe
TRACKING HARMFUL CYANOBACTERIA AND THEIR EFFECTS ON LOUISIANA OYSTERS USING MOLECULAR TOOLS
- 9:30 David A. Ernst**, Brian F. Beal, Erin K. Grey, LeAnn P. Whitney, Nichole N. Price
ELUCIDATING MUSSEL LARVAL DYNAMICS IN CASCO BAY, MAINE WITH USER-FRIENDLY, ERNA-BASED TOOLS

COMMUNITIES OF PRACTICE IN AQUACULTURE

Sunday, March 9 8:30 AM - 10:00 AM Salon C

Chair: Joe Caterine

- 8:30 LaDon Swann**
THE AQUACULTURE NETWORK INFORMATION CENTER (AQUANIC) AS AN EARLY COMMUNITY OF PRACTICE
- 8:45 Melissa Good**, Sean Crosby, Seawan Gehlbach, Lexa Meyer, Caitlin McKinstry, Nick Mangini, Erik O'Brien, Lindsay Olsen, Alf Pryor, Thea Thomas
COLLABORATIVE FARMER-SCIENTIST EFFORTS IN EVALUATING THE IMPACTS OF MARICULTURE IN ALASKA
- 9:00 Amy Schrank**, Donald Schreiner
THE GREAT LAKES AQUACULTURE COLLABORATIVE (GLAC) COMMUNITY OF PRACTICE
- 9:15 Zachary Gordon**, Danny Badger, Dennis McIntosh, Colby Silvert, Allen Pattillo
REBOOTING THE NORTHEAST AQUACULTURE EXTENSION NETWORK: A SKILLS TRAINING AND MENTORSHIP PROGRAM FOR EXTENSION PROFESSIONALS
- 9:30 Emily Whitmore**, Members of the Maine DEI&A Working Group
A COMMUNITY OF PRACTICE APPROACH TO TACKLING DEI&A IN THE MAINE AQUACULTURE INDUSTRY
- 9:45 Adriane Michaelis**, Emily Whitmore
THE SOCIAL DIMENSIONS OF AQUACULTURE: ENABLING COMMUNICATION AND COLLABORATION THROUGH A COMMUNITY OF PRACTICE

AQUACULTURE OPPORTUNITY AREAS - UPDATES

Sunday, March 9 11:00 AM - 12:30 PM Galerie 1

Chair: Kristine Cherry

- 11:00 Phaedra Doukakis-Leslie**
OVERVIEW OF THE AQUACULTURE OPPORTUNITY AREAS PROCESS
- 11:15 Megan Ewald**
PUBLIC ENGAGEMENT IN THE AQUACULTURE OPPORTUNITY AREA PROCESS
- 11:30 Andrew Richard**, Kieleey Hurff
DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT FOR AQUACULTURE OPPORTUNITY AREAS IN FEDERAL WATERS OF THE GULF OF MEXICO

11:45 Celia Barroso

DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT FOR
AQUACULTURE OPPORTUNITY AREAS IN FEDERAL WATERS OFF OF
SOUTHERN CALIFORNIA

12:00 Alicia Bishop, Hannah Wilson, Chris Schillaci

ALASKA AOA NOTICE OF AVAILABILITY

12:15 Jacob Siegrist, Marcus Zobrist

INTERAGENCY ENGAGEMENT IN THE AOA PROCESS

AQUACULTURE MICROBIOME

Sunday, March 9 11:00 AM - 12:30 PM Balcony M

Chairs: Jake Bledsoe, Hannah Collins

SUNDAY

This 2-hour, introductory, in-person workshop will provide an overview of NASA remote sensing data for supporting aquaculture activities in marine and freshwater environments. The workshop will include the fundamentals of remote sensing of water quality, and how to access and visualize remote sensing data for monitoring harmful algal blooms. Participants will engage in hands-on exercises to access and visualize satellite imagery and water quality indicators using NASA webtools. No prior knowledge or experience is required to attend the workshop.

11:00 Hannah Collins, Tyler Griffin, Evan Ward

TISSUE-SPECIFIC RESIDENT AND TRANSIENT MICROBIAL COMMUNITIES
OF THE FRESHWATER UNIONID *Elliptio complanata*

11:15 Angelo DePaola, Asim Bej, Nazia Mojjib, Andrea Tarnecki

MICROBIOME COMPARISON OF SEDIMENTS COLLECTED FROM
CATCHMENTS BENEATH OYSTER AQUACULTURE EQUIPMENT WITH
INTERTIDAL BOTTOM SEDIMENTS AROUND WILD OYSTER COMMUNITIES
IN COASTAL ALABAMA

11:30 Leone Yisrael, Anand Gnanadesikan, Katrina M. Pagenkopp Lohan,
Sarah Preheim

MARINE INVERTEBRATE GILL MICROBIOMES: ARE THEY INFLUENCED BY
THE HOST'S ENVIRONMENT OR SPECIES-SPECIFIC?

11:45 Caitlin Older, Bradley Richardson, Fernando Yamamoto, Charles Mischke

BACTERIAL COMMUNITIES ASSOCIATED WITH ZOOPLANKTON IN A
HYBRID *Ictalurus punctatus* × *I. furcatus* CATFISH POND

- 12:00 Jacob Bledsoe**, Yoandy Coca, Mosope Abanikannya, Marcos Godoy
 MICROBIAL DYNAMICS AND FUNCTIONAL POTENTIAL OF BIOFILTER
 COMMUNITIES FOLLOWING CHEMICAL DISINFECTION IN ATLANTIC
 SALMON RECIRCULATING AQUACULTURE SYSTEMS
- 12:15 Julianna Stangroom**, Melissa Allen, Jason Standard, Jordan Poley
 RESOLVING SPECIES-SPECIFIC FUNCTION IN MICROBIOME ANALYSIS IS
 KEY TO MANAGEMENT DECISIONS IN AQUACULTURE

SOCIAL DIMENSIONS OF AQUACULTURE

Sunday, March 9 11:00 AM - 5:30 PM Salon C

Chairs: Adriane Michaelis, Emily Whitmore

- 11:00 Carlos Carroza**, Derie Fuentes, Daniel Benetti
 NAVIGATING CONTROVERSY: CHILEAN MEDIA COVERAGE OF THE
 SALMON AQUACULTURE INDUSTRY
- 11:15 Trixie Betz**
 DIGITAL CAMPAIGN STRATEGIES TO ADVANCE PUBLIC SUPPORT FOR
 AQUACULTURE IN MAINE
- 11:30 Sarah Curry**
 FACES AND VOICES OF FLORIDA AQUACULTURE
- 12:00 Barry Antonio Costa-Pierce**, Earle Barnhart, Hilda Maingay, Ronald Zweig,
 Cait Avelis, Kassidy Krejmas
 AQUACULTURE OF *SARDINHAS*: SMALL, NATIVE FISH AS LOW COST,
 HIGHLY NUTRITIOUS, DELICIOUS FOODS
- 12:15 Sarah Risley**, Heather M. Leslie, Jessica Gribbon Joyce, Caitlin Cleaver
 A FOCUS ON THE FUTURE: PARTICIPATORY FOCUS GROUPS FOR
 ENVISIONING THE FUTURE OF OYSTER AQUACULTURE AND OUR COASTS
- 12:30 LUNCH**
- 1:30 Russell Grice**, Jillian Sower, LaDon Swann, Steve Sempier, Kelly Dunning
 ALABAMA-MISSISSIPPI OYSTER COMMUNITY OF PRACTICE
- 1:45 Caela B. Gilsinan**, Andrew M. Scheld, Adriane K. Michaelis, William C. Walton,
 Karen Hudson, Andrew Ropicki
 ADDRESSING LABOR DEMAND AND PRODUCTION EFFICIENCY IN
 SHELLFISH AQUACULTURE

- 2:00 Caitlin Cleaver**, Teresa Johnson, Keith Evans, Samuel Hanes
FACTORS INFLUENCING LOBSTER FISHERS' PERCEPTIONS OF
AQUACULTURE AND THEIR WILLINGNESS TO ADOPT
- 2:15 Nathan Smith**, Laura Rickard
VALUES, RISKS, AND TRUST: UNDERSTANDING DETERMINANTS OF STAGE
PROGRESSION WITHIN THE SOCIAL LICENSE TO OPERATE FRAMEWORK
IN THE CONTEXT OF RECIRCULATING AQUACULTURE SYSTEM
DEVELOPMENT
- 2:30 Emily Whitmore**, Anne Langston Noll, Christopher Davis, Thomas Safford,
Lawrence Hamilton
PUBLIC PERCEPTIONS OF AQUACULTURE IN MAINE
- 2:45 Christian Brayden**
WHO WANTS TO EAT SEAWEED – HOW AND WHY? A NATIONWIDE STUDY
ON U.S. CONSUMER PREFERENCES FOR SEAWEED
- 3:00 BREAK**
- 3:30 Sharon Xin Ying Chuah**, Zhifeng Gao, Nicole Arnold, Razieh Farzad
UNITED STATES CONSUMERS' ATTITUDES TOWARDS CELL-BASED
SEAFOOD: EFFECTIVE MARKETING STRATEGIES AND POLICY
RECOMMENDATIONS
- 3:45 Ryan Ardoin**, Jeanne Lea, Rebecca Dupre
A MULTIREGIONAL EVALUATION OF OFF-FLAVOR DESCRIPTORS AND U.S.
CONSUMERS' SENSITIVITY TO GEOSMIN IN WATER
- 4:00 Rebekah Woodburn**, Cristina Sandolo, Micah Conkling,
Barry Antonio Costa-Pierce, Kifle W. Hagos, Roger Jacobs, Page Nelson,
Jonathan A.C. Roques
EARTH OCEAN FOOD SYSTEMS: AN APPROACH TO REGENERATIVE
AQUACULTURE THAT SUPPORTS AQUATIC FOOD SYSTEMS FOR
ECOLOGICAL RESTORATION, HUMAN HEALTH, AND COMMUNITY FOOD
SOVEREIGNTY
- 4:15 Imani Black**
THE FUTURE OF SEAFOOD: HOW AQUACULTURE CONNECTS LOCAL AND
GLOBAL COMMUNITIES
- 4:30 Kirsten Leong**, Jonathan Fisk, Tori Spence
LOKO I'A TO LAWA'A: SAFEGUARDING CULTURAL CONNECTIONS TO
CORAL REEF SEAFOOD SYSTEMS IN HAWAII
- 4:45 Adriane Michaelis**, Emily Whitmore
THE SOCIAL DIMENSIONS OF AQUACULTURE: COMMUNITY OF PRACTICE
OPEN DISCUSSION

VISIONARY OPPORTUNITIES IN AQUACULTURE GENOMICS - DAY 1

Sunday, March 9 11:00 AM - 5:30 PM Galerie 4
Chairs: Mike Phelps, Louis Plough, Eric Saillant, Jon Puritz

- 11:00 Rex A. Dunham**
TRANSGENIC FISH: PAST, PRESENT AND FUTURE
- 11:30 Benjamin J. Reading**, Moh Salem, Steven Roberts, Neil Thompson,
Linnea K. Andersen, Michael Phelps
THE NRSP-8 NATIONAL AQUACULTURE GENOME RESEARCH PROGRAM
- 11:45 Bernarda Calla**, Neil Thompson, Jingwei Song
EVALUATION OF GENETIC DIVERSITY IN PACIFIC OYSTERS FROM THE
U.S. WEST COAST USING WHOLE-GENOME RE-SEQUENCING
- 12:00 Yniv Palti**, Guangtu Gao, Geoffrey Waldbieser, Ramy Youngblood, Paul Wheeler,
Brian Scheffler, Shwan Narum, Gary Thorgaard
DE-NOVO GENOME ASSEMBLIES OF FOUR RAINBOW TROUT LINES
TOWARDS A PAN-GENOME REFERENCE
- 12:15 Debbie Plouffe**, Christina Kriaridou, Klara Verbyla, Alejandro Gutierrez
HOW MANY MARKERS DO I NEED? OPTIMAL MARKER DENSITY
AND GENOTYPING TOOL CHOICE FOR LONG-TERM SUCCESS IN
AQUACULTURE BREEDING PROGRAMS
- 12:30 LUNCH**
- 1:30 Neil Thompson**, Megan Dotterweich
DEVELOPMENT AND EARLY RESEARCH WITH A MICROHAPLOTYPE
GENOTYPING-BY-SEQUENCING PANEL IN PACIFIC OYSTER *Magallana gigas*
- 1:45 John Konvalina**, Guangtu Gao, Vibha Tripathi, Gregory Wiens, Yniv Palti,
Christine Elsik
ANNOTATION OF FOUR RAINBOW TROUT GENOMES IN SUPPORT OF A
PAN-GENOME REFERENCE
- 2:00 Ridwan Ahmed**, Guglielmo Raymo, Ali Ali, Rafet Al-Tobasei, Tim Leeds,
Mohamed Salem
MULTI-OMICS ANALYSIS IDENTIFIES CANDIDATE GENETIC AND MICROBIAL
MARKERS AND THEIR POTENTIAL INTERACTION TO INFLUENCE FILLET
YIELD AND QUALITY TRAITS IN RAINBOW TROUT
- 2:15 Christopher Hollenbeck**, Joseph Matt, David Portnoy
ASSESSMENT OF CHROMOSOMAL INVERSIONS IN EASTERN OYSTER
POPULATIONS IN THE GULF OF MEXICO

- 2:30 Cristian Gallardo**, Steven Roberts
WHOLE GENOME RESEQUENCING IN TRIPLOID PACIFIC OYSTERS
REVEAL AMINO ACID CHANGE SIGNATURES AND SPLICE SITE EFFECT
- 2:45 Eric H. Ignatz**, Shelby B. Clarke, Ramón Filgueira, Tiago S. Hori
GENETIC POPULATION STRUCTURES AND PRESENCE-ABSENCE
VARIATION AMONG MUSSELS *Mytilus* spp. ACROSS THE NORTH ATLANTIC
- 3:00 BREAK**
- 3:30 Louis Plough**, Lindsey Schwartz
DEVELOPMENT AND TESTING OF A NON-LETHAL DNA BIOPSY METHOD IN
EASTERN OYSTER *Crassostrea virginica*
- 3:45 Julia McDonough**, Sarah Gignoux-Wolfsohn, Sarah Donelan, Thomas Miller
DNA METHYLATION IN RESPONSE TO HYPOXIC STRESS IN EASTERN
OYSTERS
- 4:00 Jonathan Puritz**, Kathleen E. Lotterhos, Johanna Harvey
ASSESSING THE EVOLUTIONARY RESPONSE OF EASTERN OYSTER
LARVAE TO EXPOSURE COASTAL ACIDIFICATION AND SEWAGE EFFLUENT:
A CASE STUDY
- 4:15 Ridwan Ahmed**, Guglielmo Raymo, Ali Ali, Rafet Al-Tobasei, Tim Leeds,
Mohamed Salem
SHOTGUN METAGENOMICS REVEALS MICROBIAL TAXA LINKED TO FILLET
YIELD AND QUALITY TRAITS IN RAINBOW TROUT
- 4:30 Mackenzie Gavery**, Lauren Vandepas, Lauren Saunders, Brent Vadopalas,
Adam Luckenbach, Cole Trapnell, Steven Roberts
SINGLE-CELL TRANSCRIPTOMICS SHEDS LIGHT ON EARLY GERM CELL
DIFFERENTIATION IN THE PACIFIC OYSTER *Crassostrea gigas*
- 4:45 Megan Ewing**, Larken Root, Ryan Crim, Mackenzie Gavery, Steven Roberts,
Emma Timmins-Shiffman
PARENTAL PRIMING FOR OCEAN ACIDIFICATION RESILIENCE IN
MANILA CLAMS: MECHANISTIC INSIGHTS GAINED THROUGH EGG
TRANSCRIPTOME ANALYSIS
- 5:00 Johanna Aldersey**, Miles Lange, Benjamin Beck, Jason Abernathy
SINGLE-NUCLEI TRANSCRIPTOME ATLAS OF SPLEEN CELLS FROM
CHANNEL CATFISH *Ictalurus punctatus*
- 5:15 Dina Proestou**, Thomas Delomas, Mary Sullivan, Kathryn Markey Lundgren
DIFFERENTIAL GENE EXPRESSION BETWEEN FEMALE AND MALE
EASTERN OYSTER TISSUES

AQUAPONICS

Sunday, March 9 11:00 AM - 5:15 PM Balcony L

Chairs: Janelle Hager, Huy Tran

- 11:00 George Brooks Jr.**
INSIGHTS ON ADAPTING AQUAPONIC FOOD PRODUCTION TO INCREASING LOCAL TEMPERATURES (AQUAPONICS IN THE HEAT)
- 11:15 Aya S. Hussain, Paul Brown**
CURRENT STATUS OF THE PROPAGATION OF BASIL IN AQUAPONIC SYSTEMS – A LITERATURE REVIEW
- 11:30 Sarah Cisz, Lindee Mason, Ahmed Mustafa**
DIFFERENCE BETWEEN NUTRIENT DENSITY AND GROWTH OF THAI BASIL GROWN IN SOIL AND IN AQUAPONICS
- 11:45 Joya Saha, Timothy Allen Rice, Jemuel S. Doctolero, Aya S. Hussain, Paul B. Brown**
OPTIMIZING A PILOT-SCALE AQUAPONIC PRODUCTION OF TILAPIA AND LETTUCE: A COMPARATIVE STUDY OF BATCH VS. STAGGERED CROPPING SYSTEMS WHEN STARTING NEW SYSTEMS
- 12:00 Nassrin Mashaii, Farhad Rajabipour**
AQUAPONICS, A METHOD TO PRODUCE HEALTHY FOOD
- 12:15 Matthew Recsetar, Kevin Fitzsimmons**
BEST PRACTICES AND INNOVATIVE STRATEGIES FOR INCREASING SUSTAINABILITY AND PROFITABILITY IN AQUAPONICS
- 12:30 Timothy Hovanec, Justin Speck, Melissa Allen, Mark Schmitz**
USING METAGENOMIC SEQUENCING TO SURVEY MICROBIAL DIVERSITY OVER A ONE YEAR PERIOD IN A RAS-AQUAPONICS SYSTEM RAISING WALLEYE *Sander vitreus*
- 12:45 LUNCH**
- 1:30 Chelsea Walling, Janelle Hager**
PREPARING LIMITED-RESOURCE KENTUCKY AQUAFARMERS FOR SUCCESS THROUGH COMPREHENSIVE AQUACULTURE BOOTCAMP TRAINING
- 1:45 James Ward, Leo Fleckenstein, Chelsea Walling, Lucien Blakemore, Janelle Hager**
EVALUATING THE EFFECTS OF WATER TEMPERATURE ON COMPOSITION OF BIOFILM MICROBIAL ASSEMBLY IN AQUAPONIC SYSTEMS

- 2:00 Kshitij Poudel**, Leo Fleckenstein, J. Chris Ward, Janelle Hager
QUALITY SCORE SELECTION IMPACTS MICROBIAL ABUNDANCE AND DIVERSITY OUTCOMES IN AQUAPONICS MICROBIOME DATA ANALYSIS
- 2:15 Lucien Blakemore**, Marshall Chapman, Christopher Ward, Leo Fleckenstein, Janelle Hager
COMPARING THE EFFECTS OF DIFFERENT LIGHTING TYPES ON GROWTH AND PHYTOCANNIBINOID PRODUCTION OF HEMP IN AQUAPONIC SYSTEMS
- 2:30 Veonn Caines**, Achieng Akuak, Leo Fleckenstein, Christopher Ward, Janelle Hager
EFFECTS OF DIFFERENT pH LEVELS DURING AEROBIC MINERALIZATION OF FISH EFFLUENT ON NUTRIENT RECOVERY
- 2:45 Liyuwork Amare Wubliker**
EFFECTS OF NIGER SEED CAKE *Guizotia abyssinica* INCLUSION IN FISH FEED AS A MAJOR PROTEIN SOURCE ON ANION DYNAMICS IN NILE TILAPIA *Oreochromis niloticus* LETTUCE AQUAPONICS SYSTEM
- 3:00 BREAK**
- 3:30 Artur Rombenso**, Mauricio G.C. Emerenciano, Ha Truong, Paula Lima, George Koster, Jarvis Aland, Cathryn O'Sullivan, Stuart Arnold, Cedric Simon
CIRCULARITY IN AQUACULTURE AT CSIRO, AUSTRALIA: R&D, TRENDS AND OPPORTUNITIES IN SYSTEMS AND NUTRITION
- 3:45 Achieng Akuak**, Veonn Caines, Leo Fleckenstein, Christopher Ward, Janelle Hager
INVESTIGATING THE POTENTIAL OF MINERALIZED AQUACULTURE EFFLUENT AS A NUTRIENT ADDITION IN AQUAPONIC SYSTEMS
- 4:00 Kennia Brum Doncato**, Christopher Neefus
SEA VEGETABLES ALLIANCE: SUGAR KELP *Saccharina latissima* FERTILIZER FOR *Salicornia* PRODUCTION
- 4:15 Anissa Overly**, Barbra Evans, Derek Wright, Benjamin Southwell
CONTINUED ANALYSIS OF METAL IONS IN CLOSED LOOP AQUAPONICS
- 4:30 Ana Viskovic**, Fabio Ugolini
AWARE IN A NUTSHELL – AQUAPONICS FROM WASTEWATER RECLAMATION
- 4:45 Kyle Rafael Marcelino**, K.C. Surendra, Shreeja Lama, Ty Shitanaka, Samir Khanal
IMPROVING WATER QUALITY IN MEDIA-BASED AQUAPONIC SYSTEMS WITH NANOBUBBLE AERATION TECHNOLOGY

- 5:00 Adam Bell**, Sarina Ergas, Kevan Main, Nicole Rhody, Lior Guttman, Andrei Tarnecki
MARINE BIOFILTER COMBINATIONS IN RECIRCULATING AQUACULTURE SYSTEMS
- 5:15 Jemuel Doctolero**, Paul Brown, Joya Saha, Timothy Allen Rice, Aya S. Hussain
PRODUCTION AND NUTRITIONAL COMPOSITION OF *Chlorella vulgaris* AND LETTUCE AS A FUNCTION OF TILAPIA STOCKING DENSITY IN A DECOUPLED AQUAPONIC SYSTEM
- 5:30 Swarna Kanchan**, Leo Fleckenstein, Janelle Hager, Avinash Tope
AGRICULTURE TECHNOLOGY RESEARCH THROUGH INTERDISCIPLINARY APPROACHES AT KENTUCKY STATE UNIVERSITY

BIRDS AND SHELLFISH SANITATION

Sunday, March 9 11:00 AM - 5:30 PM Balcony J

Chair: Bob Rheault

- 11:00 Robert Rheault**
MANAGEMENT OF BIRD-RELATED PATHOGEN RISK IN SHELLFISH AQUACULTURE
- 11:15 J. Kohl Kanwit**, James Becker, Stephen Combes, Melinda Cook, Laurie Davis, Heather Grieser, Chloe Kilborn, Bryant Lewis, Aidan Lurgio, Carey Rodriguez, Lisa Silva, Emer Smith, Amy Webb
Campylobacter coli ILLNESS OUTBREAK ASSOCIATED WITH RAW OYSTER CONSUMPTION IN MAINE
- 11:30 Dylan Bakner**, Nicole Richard, Martina Muller, Peter Paton, Kimberly Lavoie, Marta Gomez-Chiarri, Scott McWilliams
DO TEMPORAL PATTERNS IN BIRD DISTRIBUTION AND ABUNDANCE FACILITATE PATHOGEN CONTAMINATION OF SHELLFISH ON FLOATING AQUACULTURE FARMS?
- 11:45 Luke Matvey**, Andrea Tarnecki, Scott Rikard
SEABIRD INTERACTIONS WITH FLOATING OYSTER GEAR AND *CAMPYLOBACTER* PREVALENCE AT OYSTER FARM SITES
- 12:00 Teri King**
A DOG'S TALE OF BIRDS AND BIVALVES
- 12:15 Pax Lindell**, Pax Lindell, Frank Woodward
COMMERCIAL USE OF BIO-ACOUSTIC TECHNOLOGY FOR DETERRING BIRDS FROM ROOSTING AND CONGREGATING ON FLOATING GEAR: NON-LETHAL SOUNDSCAPES DESIGNED TO JAM THE BIRD'S ABILITY TO COMMUNICATE

12:30 LUNCH

1:30 Rachel Hutchinson, Joshua Reitsma, David Brown, Rebecca Brown
ROOSTING BIRDS POSE CHALLENGES FOR SOME MASSACHUSETTS OYSTER GROWERS, CAN AN EYE SAFE LASER DETERRENT MITIGATE RISK?

1:45 Joe Gerken, Grace Lansdell, Amy Shambach, Jason Garvon
EFFECTIVENESS OF LASER AND ACOUSTIC BIRD DETERRENT DEVICES IN AQUACULTURE: IMPLICATIONS FOR SHELLFISH PRODUCERS

2:00 Nicole Richard, Chibuike Ezeama, Kimberly Lavoie, Marta Gomez-Chiarri, Scott McWilliams
ASSESSING DEPURATION OF *Campylobacter* spp. FROM OYSTERS

2:15 Bobbi Hudson, Andrew Suhrbier
EVIDENCE SUGGESTS INSIGNIFICANT RISK OF CONTAMINATION FROM BIRDS

2:30 WORKSHOP

SUNDAY

INSECTS IN FISH DIETS

Sunday, March 9 1:30 PM - 3:00 PM Galerie 5

Chair: Rebecca Lochmann

1:30 Kala Mallik Meesala, Michael Habte-Tsion, Jeongwhui Hong, Wendy M. Sealey, Radu Popa, Deborah A. Bouchard
EFFECTS OF FISHMEAL SUBSTITUTION BY DEFATTED BLACK SOLDIER FLY LARVAE AND SOY PROTEIN MEALS ON THE GROWTH AND HEALTH OF ATLANTIC SALMON *Salmo salar*

1:45 Julio Camperio, Jorge Suarez, Jorge Parodi, Daniel Benetti
EVALUATION OF BLACK SOLDIER FLY LARVAE *Hermetia illucens* AS FEED ADDITIVE THROUGH SALMONID SHK-1 CELL LINES: POLYPHENOL ACCUMULATION, ANTIOXIDANT RESPONSE, AND CELLULAR PROLIFERATION

2:00 Sahya Maulu, Benjamin Eynon, Sherilyn Abarra, Mark Rawling, Daniel L. Merrifield
BLACK SOLDIER FLY *Hermetia illucens* MEAL IMPROVES GROWTH, FEED UTILIZATION, AND INTESTINAL HEALTH OF NILE TILAPIA *Oreochromis niloticus* JUVENILES

- 2:15 Anthony Siccardi**, Michelle Lowery, Heather Joesting, Michele Guidone, Cristina Richardson
EVALUATION OF JUVENILE BLUE TILAPIA *Oreochromis aureus* FED PRACTICAL DIETS SUPPLEMENTED WITH BLACK SOLDIER FLIES *Hermetia illucens* REARED ON ALGAL TURF SCRUBBER BIOMASS
- 2:30 Alexander Gregory**, Peter Shep, Mike Preul, Wendy Sealey, Dong Fang Deng
REPLACING CORN OIL WITH BLACK SOLDIER FLY OIL IN WALLEYE *Sander vitreus* FEED: EFFECTS ON GROWTH, HEALTH, AND TOLERANCE TO TEMPERATURE SHOCK
- 2:45 Ana Beatriz Farias**, Jing Huang, Crytal Conde, Grant Reifers, Penelope M. Goodman, Caitlin Older, Heather Jordan, Delbert M. Gatlin III, Matt Griffin, Ligia Gonçalves, Fernando Yamamoto
EVALUATING BLACK SOLDIER FLY LARVAE *Hermetia illucens* OIL SUPPLEMENTATION ON GROWTH PERFORMANCE AND HEALTH PARAMETERS OF HYBRID CATFISH *Ictalurus punctatus* × *I. furcatus* JUVENILES
- 3:00 Ana Beatriz Farias**, Thiago M. Santana, Vitor F. Silva, Crytal Conde, Caitlin Older, Grant Reifers, Penelope M. Goodman, Heather Jordan, Nicholas Romano, Delbert M. Gatlin III, Ligia U. Gonçalves, Fernando Yamamoto
DIETARY INCLUSION OF BLACK SOLDIER FLY *Hermetia illucens* FRASS IN DIETS FOR CHANNEL CATFISH *Ictalurus punctatus*

SALMONIDS

Sunday, March 9 1:30 PM - 5:30 PM Salon A

Chair: Matt Hawkyard

- 1:30 Thomas Detmer**, Evan Dlugos, Connor Reeve, Peter McIntyre
RELATING PERFORMANCE AND BEHAVIOR FOR SIX STRAINS OF BROOK TROUT *Salvelinus fontinalis*
- 1:45 Agnès Bardon-Albaret**, Philippe Duguay, Claude Landry, Annie Albert, Josué Chiasson, Miguel Saulnier, Sébastien Haché
PERFORMANCE EVALUATION OF DIPLOID AND TRIPLOID ARCTIC CHARR
- 2:00 Abigail V. Concannon**, Tillmann J. Benfey, William D. Robertson, Amber F. Garber
GROWTH AND SURVIVAL OF MIXED-SEX DIPLOID AND ALL-FEMALE DIPLOID AND TRIPLOID RAINBOW TROUT *Oncorhynchus mykiss* IN VARIABLE-TEMPERATURE SEAWATER

- 2:15 Mosope Abanikannda**, Jacob Bledsoe
ADAPTIVE RESPONSES OF THE MUCOSAL MICROBIOME TO
TEMPERATURE VARIATIONS IN REDBAND TROUT *Oncorhynchus mykiss*
gairdneri POPULATIONS
- 2:30 Tucker Graff**, Tyler Bianchine, Wendy Sealey, Sajid Alavi
EFFECT OF CEREAL GRAIN CHOICE ON THE EXTRUDED FEED
CHARACTERISTICS AND GROWTH PERFORMANCE OF RAINBOW TROUT
Oncorhynchus mykiss
- 2:45 Kevin Fisher**, Konrad Dabrowski, Rafael Jimenez-Flores, Alba Mayta-Apaza
EVALUATION OF FISH WASTE FERMENTED WITH DAIRY BY-PRODUCT AS
AN ALTERNATIVE PROTEIN SOURCE FOR AQUAFEDS FOR RAINBOW
TROUT
- 3:00 BREAK**
- 3:30 Michael Pietrak**, Demitri Lifgren, Thomas Delomas, Mark Polinski
SEA LICE *Lepeophtheirus salmonis* RESISTANCE IN THREE STRAINS OF
ATLANTIC SALMON *Salmo salar*
- 3:45 Mariah Pearson**, Robert Harrington, Matt Hawkyard
DEVELOPMENT AND VALIDATION OF A CHALLENGE MODEL USING
GEOSMIN-SPIKED FEEDS TO OBTAIN OFF-FLAVOR COMPOUNDS IN THE
TISSUES OF ATLANTIC SALMON *Salmo salar*

LARVAL CULTURE

Sunday, March 9 1:30 PM - 5:30 PM Salon D

Chairs: Aaron Watson, Casey Murray

- 1:30 Casey Murray**, Travis Knorr, Amy Wood, Olivia Markham, Brittney Lacy,
Matthew DiMaggio
EVALUATING THE POTENTIAL OF FEED ATTRACTANTS AND LIQUID DIETS
TO REDUCE THE USE OF LIVE FEEDS FOR LARVAL *Trichopodus leerii*
- 1:45 Michael Frinsko**, Michael Joseph, Steven Hall, Lou D'Abramo,
Benjamin Reading
EVALUATION OF COMMERCIAL MICRODIETS AS FIRST FEEDS WITH
DOMESTICATED STRIPED BASS *Morone saxatilis* IN RAS
- 2:00 Cortney Ohs**, Jonathan Simon
USE OF FLUORESCENT MICROSPHERES TO DEFINE LIVE FOOD
ORGANISM PREFERENCES OF LARVAE OF YELLOW DOMINO DAMSELFISH
Dascyllus auripinnis, SPINECHEEK CLOWNFISH *Amphiprion biaculeatus* AND
PIGFISH *Orthopristis chrysoptera*

- 2:15 Li Sun Chin**, Sahar Mejri, Carlie Perricone, Christopher Robinson, Juan F. Paredes, Paul S. Wills
REPLACEMENT OF LIVE FEEDS WITH A COMMERCIAL DIET IN FLORIDA POMPANO *Trachinotus carolinus*
- 2:30 Leonardo Ibarra-Castro**, Karen Carvajal, Josue Lopez-Cardiel
PRELIMINARY DATA ASSESSMENT OF SEMIAUTOMATIC AQUACULTURE LARVAL REARING SYSTEM FOR RED DRUM INTENSIVE JUVENILE PRODUCTION
- 2:45 Travis Knorr**, Casey Murray, Amy Wood, Olivia Markham, Brittney Lacy, Matthew DiMaggio
CHANGING UP THE PROTOCOL: CAN ALTERNATIVE FIRST FEEDS IMPROVE THE CULTURE EFFICIENCY OF THE CHERRY BARB *Puntius titteya*
- 3:00 BREAK**
- 3:30 Michael Frinsko**, Steven Hall, Lou D'Abramo, Benjamin Reading
ADVANCING SWIMBLADDER INFLATION WITH DOMESTICATED STRIPED BASS *Morone saxatilis* IN RAS
- 3:45 Maxim Batalin**, Zoltan Gorocs, Dhruvin Naik, Jessica Keszey, Andrew Jones, Lin Li, Maria Arredondo
AQUSENS: AI-POWERED PLATFORM FOR AUTOMATED QUANTIFICATION OF LIVE FEED

GASTROPODS

Sunday, March 9 1:30 PM - 3:00 PM Balcony M

Chair: Jackson Gross

- 1:30 Sara Boles**, Naomi Wiemken, Jackson Gross
THE USE OF NON-INVASIVE ULTRASOUND TECHNOLOGY TO MONITOR CARDIAC ACTIVITY IN RED ABALONE *Haliotis rufescens*
- 1:45 Newton Hood**, Alyssa R. Frederick, Lauren Ashlock, Kristin M. Aquilino, Donovan P. German
FROM A FULL GUT TO A FULL GONAD; USING GNRH TO EXAMINE THE LINK BETWEEN REPRODUCTIVE AND NUTRITIONAL PHYSIOLOGY IN ABALONE
- 2:00 Amanda Matthews**, Megan Davis, Robinson Bazurto, Nicholas Beswick-Seidl
RELIABLE MILK CONCH CAPTIVE BREEDING POPULATION HELPS TO PAVE THE WAY TO ESTABLISH A QUEEN CONCH CAPTIVE BREEDING POPULATION

- 2:15 Nick Beswick-Seidl**, Amanda Matthews, Megan Davis, Robinson Bazurto
A HIGH-RESOLUTION LOOK AT MILK CONCH *Macrostrombus costatus*
FECUNDITY AND EGG MASS MORPHOMETRICS
- 2:30 Brittany Morgan**, Amber D. Lisi, Adam J. Delargy, Andie Painten, Max D. Zavell,
Sandra E. Shumway, Kevin D.E. Stokesbury
A COMPARISON OF METHODS TO ESTIMATE AGE AND SIZE-AT-MATURITY
FOR CHANNELED WHELKS *Busycotypus canaliculatus* IN MASSACHUSETTS
- 2:45 M. Mayela Manzano-Mora**, Daniel A. Díaz-Guzmán, Miguel A. Tripp-Valdez,
Roberto Cruz-Flores, Rodrigo Beas-Luna, Clara E. Galindo-Sánchez,
Fabiola Lafarga-De la Cruz
BIOLOGICAL PERFORMANCE OF RED ABALONE *Haliotis rufescens* ON AN
EXPERIMENTAL MARINE BOTTOM CULTURE SYSTEM

MITIGATING EFFECTS OF HARMFUL ALGAL BLOOMS ON AQUACULTURE

Sunday, March 9 1:30 PM - 5:30 PM Studio 8

Chairs: Steve Morton, Alan Wilson

- 1:30 Mark Van Asten**, Rendy Ruvindy, Penelope A. Ajani, Sereena Ashlin,
Gustaaf Hallegraeff, Kerstin Klemm, Christopher Bolch, Sarah Ugalde,
Stephen Woodcock, Matthew Tesoriero, Shauna Murray
THE ON FARM UTILISATION OF A MOLECULAR QPCR TOOL FOR THE
PREDICTIVE MANAGEMENT OF PARALYTIC SHELLFISH TOXIN-PRODUCING
HARMFUL ALGAL BLOOMS FOR THE AQUACULTURE INDUSTRY
- 1:45 Nia Rene**, Steve Morton, Andrew Shuler
PARTICIPATORY SCIENCE APPROACH TO MONITOR HARMFUL ALGAL
BLOOMS, AND CHANGES IN ENVIRONMENTAL CONDITIONS WITH THE
AQUACULTURE INDUSTRY
- 2:00 Maxim Batalin**, Zoltan Gorocs, Dhruvin Naik, Jessica Keszey, Andrew Jones,
Lin Li, Maria Arredondo
AQUSENS: AI-POWERED PLATFORM FOR AUTOMATED IDENTIFICATION OF
HARMFUL ALGAL BLOOMS AND OTHER PATHOGENS IN WATER
- 2:15 Hosseinali Safavieh**, Md Daud Hossain Khan, Alireza Mozalemhosseini
PSP ALERT– AN INNOVATIVE, FIELD-DEPLOYABLE KIT FOR QUICK
DETECTION OF PSP TOXINS IN SHELLFISH
- 2:30 Teri King**
A NEEDLE IN A HAYSTACK – UNDERSTANDING YESSOTOXINS AND THEIR
ROLE IN SHELLFISH MORTALITY

- 2:45 Mallory Mintz**, Katie Higgins, Liz Harvey, Natalie Cohen, Justin Manley
MONITORING HARMFUL ALGAL BLOOMS: A HIGH-RESOLUTION STUDY OF
Akashiwo sanguinea IN COASTAL GEORGIA
- 3:00 BREAK**
- 3:30 Alan Wilson**, Edna Fernandez-Figueroa, Stephanie Rogers
USING UNOCCUPIED AERIAL SYSTEMS TO MONITOR ALGAL BLOOMS IN
CATFISH PRODUCTION PONDS ACROSS SEASONS
- 3:45 Todd Sink**, Brittany Chesser
GOLDEN ALGAE MANAGEMENT: PROPHYLACTIC AND REACTIVE USE OF
HUMIC ACID
- 4:00 Brittany Chesser**, Todd Sink
HUMIC ACID: A PROMISING APPROACH TO MANAGING *Microcystis*
aeruginosa BLOOMS
- 4:15 Ashley Hennessey**, Michael McDonald, Peyton Johnson, Matthew Gladfelter,
Kate Merrill, Suzanne Tenison, Sathya Ganegoda, Tham Hoang, H. Allen Torbert,
Benjamin Beck, Alan Wilson
REDUCING PH IMPROVES COPPER EFFICACY FOR HARMFUL ALGAL
BLOOM AND OFF-FLAVOR MANAGEMENT
- 4:30 Kayla McKinley**, Ali Parsaeimehr, Gulnihal Ozbay
OPTIMIZING ALGAL TURF TECHNOLOGY FOR ENHANCED NUTRIENT
REMEDICATION AND BIOMASS PRODUCTION IN AGRICULTURAL SYSTEMS

WORKSHOP: COMMUNITY CAPABILITY FOR PROTECTING AQUACULTURE GENETIC RESOURCES

Sunday, March 9 1:30 PM - 5:30 PM Salon F

Chairs: Jack C. Koch, Yue Liu, Nicholas Coxe, Terrence R. Tiersch

Genetic improvement generally gains importance as agricultural systems grow and mature. Many sectors within aquaculture have moved beyond the development of production systems and diets, and future gains will come from developing and harnessing genetic resources. These genetic resources have extraordinary value, providing food security and livelihoods for most people on our planet. Unlike terrestrial agriculture which has decades of head start developing seed banks and associated technologies, aquaculture is unprepared to fully protect and commercialize genetic resources, and needs new product forms to complement traditional live broodstocks and seedstocks. Cryopreserved germplasm is an emerging product form that can provide a bridge between broodstock and seedstock and can fundamentally change aquaculture industries but requires repository, community, and technology development to promote access, growth, and sustainability. This bridge would provide capability to control and distribute high-quality genetics around the world in a simple, dependable, and cheap form, especially when processing and management are facilitated and supported by shared community-based open hardware. The input and needs of users can be integrated throughout the design and testing processes, and hardware as well as digital files can be distributed to provide rapid and customized support for distributed networks of diverse practitioners and researchers. In this workshop we welcome hands-on interaction with a novel open-source capability kit that can increase access to protecting and distributing genetic resources of aquaculture species.

SUNDAY

- 1:30 Jack Koch, Yue Liu, Nicholas Coxe, Terrence Tiersch**
INTERACTIVE WORKSHOP: COMMUNITY-LEVEL OPEN CAPABILITY KITS
FOR PROTECTING AQUACULTURE GENETIC RESOURCES

NOAA SCIENCE INNOVATION SHOWCASE

Sunday, March 9 1:30 PM - 5:30 PM Galerie 1

Chairs: Marcy Cockrell, Dan Wiczorek

- 1:30 Marcy Cockrell, Kenneth Riley**
SCIENCE-DRIVEN SOLUTIONS: NOAA SCIENCE TO INFORM AQUACULTURE
TOOLS, MANAGEMENT, AND DECISION-MAKING
- 1:45 Christopher Schillaci, James Morris, Kenneth Riley**
ENVIRONMENTAL MODELING FOR U.S. FEDERAL WATERS FINFISH
AQUACULTURE – LESSONS LEARNED
- 2:00 Catherine Purcell, Jason Volk, Greg Blair, John Hyde**
OVERVIEW OF THE OMEGA MODEL AND EMERGING TOOLS FOR
ASSESSING GENETIC RISKS IN MARINE FINFISH AQUACULTURE
- 2:15 Julie Rose, Ryan Morse, Christopher Schillaci, Zachary Gordon**
A NEW ONLINE TOOL TO INTEGRATE NUTRIENT REMOVAL BENEFITS
PROVIDED BY EASTERN OYSTER AQUACULTURE INTO THE
AQUACULTURE PERMITTING AND REVIEW PROCESS

- 2:30 Renee Mercado-Allen**, Julie Rose, GoPro Aquaculture Habitat Project Team
AN OVERVIEW OF SIX YEARS OF RESEARCH ON HABITAT PROVISIONING BY EASTERN OYSTER AQUACULTURE GEAR
- 2:45 Adriane K. Michaelis**
COMMUNITY CONTEXT FOR OFFSHORE AQUACULTURE DEVELOPMENT: VULNERABILITY, RISK, AND OPPORTUNITY PROFILES FOR COASTAL COMMUNITIES IN THE GULF OF MEXICO
- 3:00 BREAK**
- 3:30 Matthew Bowden**, Richards Sunny, David Fredriksson
ADVANCING U.S. OFFSHORE AQUACULTURE ENGINEERING
- 3:45 Canceled**,
- 4:00 Kenneth Cain**, Adam Luckenbach
SCIENCE-BASED SOLUTIONS TO OPTIMIZE SABLEFISH (BLACK COD) AQUACULTURE TECHNOLOGY
- 4:15 Daniel Wieczorek**, Kenneth Riley, Derek Parks
PARTNERING WITH NOAA: COOPERATIVE RESEARCH, INNOVATION, AND TECHNOLOGY TRANSFER
- 4:30 Open Discussion**
OPEN DISCUSSION

FISH NUTRITION

Sunday, March 9 3:30 PM - 5:30 PM Galerie 5

Chair: Rebecca Lochmann

- 3:30 Keshun Liu**, Wendy Sealey, Gibson Gaylord, Steven Rawles, Thomas Welker, Kenneth Overturf
COMPARISON OF ACID INSOLUBLE ASH WITH YTTRIUM OXIDE FOR ESTIMATING APPARENT NUTRIENT DIGESTABILITY IN TROUT
- 3:45 Madelyn Gilroy**, Neil Anthony Sims, Jennica Lowell-Hawkins, Lieve Laurens
ENHANCING MACROALGAE DIGESTIBILITY WITH PDMA (PARTIALLY DECONSTRUCTED MACROALGAE): DECARBONIZING ANIMAL FEED AND PROMOTING SUSTAINABLE AQUACULTURE

- 4:00 Lorena A. Garnica-Gómez**, Roberto Cruz-Flores, Benjamín Barón, María Teresa Viana, Clara E. Galindo-Sánchez, Cesar Rodríguez, Juan P. Lazo
CARBOHYDRATE TYPE AND TEMPERATURE EFFECTS ON NUTRIENT DIGESTIBILITY, DIGESTIVE ENZYME ACTIVITY, AND THE INTESTINAL MICROBIOTA OF STRIPED BASS *Morone saxatilis*
- 4:15 Ashley Boggs**, Kelsey Martin, Michael Janech, Jessica Reiner, Aaron Watson
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) IN FINFISH AQUACULTURE FEEDS AND ACCUMULATION BY RED DRUM *Sciaenops ocellatus*
- 4:30 Sandrine Jueya**, Leandro Castello, Emmanuel Frimpong, Arnold-Roger Bitja Nyom
DIETS OF MORMYRIDAE (TELEOSTEI : OSTEOGLOSSIFORMES) IN TWO RIVERS OF CONGO BASIN (BOUMBA AND KADEI) IN EASTERN CAMEROON
- 4:45 Ayodeji Fagbohun**, Alex Wright, Wendy Sealey, Madison Powell, Jackson Gross
OPTIMIZING PROTEIN AND LIPID LEVELS TO IMPROVE GROWTH PERFORMANCE, NUTRIENT UTILIZATION, AND MESENTERIC FAT DEPOSITS IN ON-GROWING WHITE STURGEON *Acipenser transmontanus*
- 5:00 Kazi Rakib Uddin**, Tanwi Dey, Md. Sakhawat Hossain
DIETARY INCLUSION EFFECTS OF FERMENTED MAJOR OIL SEED BYPRODUCTS ON GROWTH AND HEALTH PERFORMANCE OF CLIMBING PERCH *Anabas testudineus*

SUNDAY

SHELLFISH DISEASE

Sunday, March 9 3:30 PM - 5:30 PM Balcony M

Chairs: Dave Bushek, Ryan Carnegie

- 3:30 Brian M. Preziosi**
TRACKING OYSTER MORTALITY AND MSX DISEASE PREVALENCE IN THE EASTERN OYSTER *Crassostrea virginica* IN THE MARYLAND PORTION OF THE CHESAPEAKE BAY FROM 2023 TO 2024
- 3:45 Leah Scott**, David Bushek, Iris Burt
LONG-TERM SHIFTS IN THE SEASONAL PHENOLOGY OF *Perkinsus marinus* IN DELAWARE BAY
- 4:00 Shannon Murphy**, Jaypee Samson, Charlotte Hickey, Jose Medina, Juanita Villa-Jaramillo, Kevin Corbett, Ruby Hoffman Blustajn, Joshua Reitsma, Roxanna Smolowitz, Marta Gomez-Chiari
TRANSCRIPTOMIC CHARACTERIZATION OF TRANSMISSIBLE DISSEMINATED HEMIC NEOPLASIA IN *Mercenaria mercenaria*

- 4:15 Kallen Sullivan**, Liam Morrison, Pieter Stekete, Tim Regan, Tim Bean
ESTABLISHING *IN VITRO* OYSTER HEART MODELS TO INVESTIGATE
Bonamia ostreae INFECTION AND HOST-PARASITE INTERACTIONS
- 4:30 Candice A. Thorstenson**, Jennifer Hesser, David Madison, Spencer Lunda,
Carla Schubiger, Ryan S. Mueller, Chris Langdon
PROBIOTICS ENHANCE EARLY IMMUNE DEVELOPMENT, GROWTH, AND
RESISTANCE TO VIBRIOSIS IN PACIFIC OYSTER *Crassostrea gigas* LARVAE
- 4:45 Kyle Brennan**, Jennifer Perry, Brian Beal, Timothy Bowden
THE USE OF PROBIOTICS TO MITIGATE ATLANTIC SEA SCALLOP
Placopecten magellanicus MORTALITY FOLLOWING CHALLENGE WITH
PATHOGENIC VIBRIO SPECIES
- 5:00 Md Wasif Alam**, Bassem Allam
CHANGES IN BAY SCALLOP *Argopecten irradians* IMMUNITY WITH AGE
- 5:15 Sharon Lynch**, Hollie Soppitt, Cillian Meehan, Sarah Culloty
THE ROLE OF NATIVE AND INVASIVE NON-NATIVE MARINE INVERTEBRATE
SPECIES AS CARRIERS FOR BIVALVE PATHOGENS *Vibrio* spp. AND
OSTREID HERPESVIRUS-1 MICROVAR

STRIPERHUB

Sunday, March 9 3:30 PM - 5:30 PM Studio 8
Chairs: Ben Reading, Russell J. Borski, Eric Herbst

- 3:30 Benjamin J. Reading**, Linnea K. Andersen, Russell J. Borski, Eric Herbst
STRIPERHUB: BUSINESS MEETING AND CULTURE MANUAL
DEVELOPMENT
- 3:45 Benjamin J. Reading**, Linnea K. Andersen, Russell J. Borski, David Cerino,
Linus W. Kenter, Mike Frinsko, Steven Hall, Eric Herbst
STRIPERHUB: OVERVIEW OF STRIPED BASS *Morone saxatilis*
AQUACULTURE
- 4:00 Samuel Garcia-Vazquez**, David Straus, Dayan A. Perera
THE DEVELOPMENT OF TRIPLOIDY INDUCTION METHODS FOR HYBRID
STRIPED BASS PRODUCTION IN COMMERCIAL AQUACULTURE
- 4:15 Russell Borski**, Jamie Mankiewicz, Benjamin Reading, William Lee
ALTERNATE DAY FEEDING ON GROWOUT OF DOMESTIC STRIPED BASS
Morone saxatilis IN RECIRCULATING AQUACULTURE

MONDAY, March 10

WOMEN AND UNDERREPRESENTED IDENTITIES IN AQUACULTURE

Monday, March 10 8:30 AM - 4:30 PM Balcony L

Chairs: Blair Morrison, Angela Caporelli

In this session, we will explore the values of research, community, collaboration, and celebration while bringing together the current and future generations of leaders in aquaculture. Women and individuals from underrepresented identities will be featured to speak about their work and lived experiences in the field, including their diverse career paths and perspectives, challenges and obstacles overcome, and programs designed to enhance diversity, equity, inclusion, and accessibility for underrepresented groups in aquaculture. Time for open discussion will allow attendees to exchange stories, build community, and share ideas to enhance DEIA in aquaculture. We welcome anyone who supports a more diverse and inclusive aquaculture industry to join us for this session.

- 8:30** WOMEN OF THE WATER: BUILDING COMMUNITY AND CATALYZING CHANGE IN AQUACULTURE
Blair Morrison, Women of the Water / Mobile Bay National Estuary Program
- 8:45** AQUACULTURE THROUGH THE YEARS; HOW I GOT WHERE I AM, AND LOOKING FORWARD TO THE FUTURE
Angela Caporelli, Kentucky Department of Agriculture
- 9:00** EMPOWERING AQUACULTURE'S NEXT GENERATIONS: EDUCATIONAL PATHWAYS TO INCLUSION
Imani Black, Minorities in Aquaculture
- 9:15** WOMEN IN VIRGINIA'S SHELLFISH AQUACULTURE SECTOR: A GENDERED PERSPECTIVE OF INDUSTRY INVOLVEMENT AND CHANGE
WOMEN AS A MINORITY IN THE SHELLFISH AQUACULTURE SECTOR: A VIRGINIA CASE STUDY ON THE GENDERED PERSPECTIVE OF INDUSTRY INVOLVEMENT AND CHANGE
Jazea Smith, California Polytechnic State University - Humboldt
- 9:30** TRAINING THE NEXT GENERATION OF QUEEN CONCH FARMERS IN CARIBBEAN COMMUNITIES
Megan Davis, Florida Atlantic University, Harbor Branch Oceanographic Institute
- 9:45** THE SIGNIFICANCE OF WOMEN IN THE DEVELOPMENT OF A CLAM FARMING INDUSTRY: THE CEDAR KEY STORY
Leslie Sturmer, Suzanne Colson, Nena Calvert, Rose Cantwell
- 10:00** BREAK

- 10:30** PROMOTING GENDER EQUALITY IN THE SECTOR: TAKEAWAYS FROM SAGE'S GENDER EQUALITY DIALOGUES
Becca Williams, Seafood and Gender Equality (SAGE)
- 10:45** BREAKING WAVES: A WOMAN'S PERSPECTIVE ON RURAL AQUACULTURE
Danielle Florenzen, Pacific Seafood
- 11:00** AQUACULTURE FOR ALL: FOSTERING EQUITY IN MAINE'S AQUACULTURE SECTOR BY DIVERSIFYING WORKFORCE TRAINING PROGRAMS
Annie Fagan, Maine Sea Grant
- 11:15** GULLAH GEECHEE OOMAN AND OUR AQUACULTURE PAST, PRESENT, FUTURE IDENTITIES
Marilyn Hemingway, Gullah Geechee Chamber of Commerce
- 11:30** HOW COMMUNITY ADDS MEANING TO MARICULTURE JOBS
Meta Mesdag, Salty Lady Seafood Co.
- 11:45** ALWAYS LOOKING FOR OPPORTUNITIES: EYES ON THE HORIZON TO MEET NEW PEOPLE, ACCEPT FRESH CHALLENGES, AND INVEST IN YOURSELF
Michelle L. "Mick" Walsh, United States Aquaculture Society
- 12:00** LUNCH
- 1:00** OPEN DISCUSSION AND ROUND TABLES

MONDAY

FEDERAL CROP INSURANCE EFFORTS AND IMPROVEMENTS

Monday, March 10 8:30 AM - 10:00 AM Galerie 6

Chair: Claire White

- 8:30** FEDERAL CROP INSURANCE 101
Cody Adkins, Insurance Services, USDA Risk Management Agency
- 9:00** OVERVIEW OF FEDERAL CROP INSURANCE PROGRAMS FOR AQUACULTURE
Claire White, Economist, Product Management, USDA Risk Management Agency
- 9:30** EXPANDING TO NEW SPECIES: BREAKING DOWN THE PROCESS FOR CREATING NEW INSURANCE PROGRAMS
Chandra Place, Product Management, USDA Risk Management Agency

**APHIS VS AQUACULTURE HEALTH INITIATIVES –
SHOWCASING WHAT VS IS DOING TO SUPPORT U.S.
AQUACULTURE**

Monday, March 10 8:30 AM - 2:30 PM Galerie 1

Chairs: Kathleen Hartman, Michele Walsh

8:30 REPORTING AQUATIC ANIMAL PATHOGENS – WHAT IT MEANS AND WHY IT IS IMPORTANT
Kathleen Hartman, USDA APHIS VS

9:00 PROGRESS AND VISION IN OUR DISEASE FREEDOM AQUASCAPE
Lori Gustafson, USDA APHIS VS

9:30 INFECTIOUS SALMON ANEMIA PROGRAM STANDARDS: EFFICIENT, EFFECTIVE, AND GOAL ORIENTATED
Sarah Mielke, USDA APHIS VS

10:00 BREAK

10:30 EXPANSION IN INTERNATIONAL TRADE OF AQUATIC ANIMALS
Alicia Marston, USDA APHIS VS

11:00 VS IN THE FIELD – OUR FRONT-LINE RESPONDERS
Connie Silbernagel, USDA APHIS VS

11:30 HOW WE ASSESS RISKS TO U.S. AQUACULTURE
Christine Ellis, USDA APHIS VS

12:00 Lunch

1:00 LICENSING VETERINARY BIOLOGICS FOR AQUATIC ANIMALS
Barbara Sheppard, USDA APHIS VS

1:30 VS NATIONAL REFERENCE LABORATORY - WHAT AND WHY BEHIND AQUACULTURE RELATED REFERENCE LABORATORY ACTIVITIES
Janet Warg, USDA APHIS VS

APHIS VS GRASSROOTS AND NADPRP GRANT UPDATES

2:00 FEASIBILITY AND ACCURACY OF REMOTE ASSESSMENT OF BEST MANAGEMENT PRACTICES FOR PARTICIPANTS OF THE REGIONAL SHELLFISH SEED BIOSECURITY PROGRAM (RSSBP)
Alison Stout, USDA APHIS VS

MONDAY

- 2:15** DEVELOPING A HIGHLY SPECIFIC AND ROBUST TAQMAN REAL-TIME PCR ASSAY FOR THE DETECTION OF AN EMERGENT PATHOGEN, *Enterocytozoon hepatopenaei* (EHP) AND ACUTE HEPATOPANCREATIC NECROSIS DISEASE (AHPND) SIMULTANEOUSLY IN SHRIMP
Arun K. Dhar*, Dinh-Hung Nguyen, Paul J. Schofield and Hung N. Mai,
Aquaculture Pathology Laboratory, University of Arizona
- 2:30** **BREAK**
- 3:00** STRENGTHENING THE AQUACULTURE VETERINARY WORKFORCE IN THE NORTH CENTRAL U.S
Myron Kebus, Michigan State University
- 3:15** ENHANCING VETERINARY SUPPORT FOR AQUACULTURE PRODUCERS IN HAWAII
Micah Brodsky, Hawaii Department of Agriculture
- 3:30** SIMPLE AND EASY-TO-USE POINT-OF-CARE THAT ALLOWS FOR RAPID DETECTION OF *Aeromonas hydrophila*, *A. veronii*, AND *A. sobria*
Anita Kelly, Auburn University
- 3:45** ASSESSING THE RISK OF MOVING LIVE FISH FROM REARING FACILITIES IN VHSV IVb HIGH-RISK AREAS: AN UPDATE
Kaitlyn St. Charles, University of Minnesota
- 4:00** COOPERATIVE SHELLFISH HATCHERY AUDITING THROUGH THE REGIONAL SHELLFISH SEED BIOSECURITY PROGRAM
Tal Ben-Horin, North Carolina State University

SHRIMP PRODUCTION

Monday, March 10 8:30 AM - 12:00 PM Salon A

Chair: Andrew Ray

- 8:30** **Abigail Elizur**, Gourab Chowdhury, Oshra Yosef, Josephine Nocillado, Scott Cummins, Tianfang Wang, Trong Tran, Susan Glendinning, Tomer Ventura
TOWARDS NOVEL SOLUTIONS FOR INDUCING OVARIAN MATURATION IN THE BLACK TIGER PRAWN *Penaeus monodon*
- 8:45** **Wilson Wasielesky**, Elisa Prates, Jéssica Damasceno, Mariana Holanda, José Monserrat, Matthew Slater
AMMONIA, NITRITE AND NITRATE PEAKS IN PACIFIC WHITELEG SHRIMP *Penaeus vannamei* CULTURE IN BFT SYSTEM: CONCENTRATION, EXPOSURE LIMITS AND RECOVERY TROUGH COMPENSATORY GROWTH

- 9:00 Dariano Krummenauer**, Bianca de Oliveira Ramiro, Otávio Augusto Lacerda Ferreira Pimentel, Natalia Pereira San Martin, Lucélia do Valle Borges, Wilson Wasielesky Jr.
DIFFERENT MANAGEMENT STRATEGIES FOR ARTIFICIAL SUBSTRATES ON NITRIFICATION PROCESSES OF *Penaeus vannamei* IN A SUPER-INTENSIVE BIOFLOC SYSTEM
- 9:15 Khanh Nguyen**, Melanie Rhodes, Luke Roy, D. Allen Davis
IMPLEMENTING AUTOMATION AND REAL-TIME FEED MANAGEMENT IN SHRIMP FARMING: RESEARCH AND PRODUCTION RETROSPECT
- 9:30 Dejuante Davenport**, Andrew Ray
ASSESSING SIZE DYNAMICS AND GRADING TO REDUCE VARIABILITY IN PACIFIC WHITE SHRIMP *Litopenaeus vannamei*
- 10:00 BREAK**
- 10:30 Stephan Ende**, Bert Wecker, Kilian Landsch, Joachim Henjes, Matthew Slater
DIGITALIZATION OF LAND-BASED SHRIMP FARMING: FOCUS ON ANIMAL WELFARE THROUGHOUT PRODUCTION – (SHRIMPWIZ)
- 11:00 Adeolu Akinyemi**
MORPHOMETRIC, MERISTICS AND BACTERIOLOGY IN SHRIMP (*Caridean* SHRIMPS) BOUGHT FROM OLOMORE FISH MARKET, ABEOKUTA, OGUN STATE
- 11:15 Dominique Pham**, Louis Sorieul, Nolwenn Callac, Dominique Ansquer, Jean-Sébastien Lam, Nelly Wabete, Vivane Boulo
A POTENTIAL MARINE PROBIOTIC STRAIN IN SHRIMP AQUACULTURE: NC201 *Pseudoalteromonas* spp.
- 11:15 Shrijan Bajracharya**, Ishini A. Appuhami, Timothy J. Bruce, Luke A. Roy, Julio C. García, D. Allen Davis
EFFECTS OF PROBIOTIC ADDITION TO CULTURE WATER ON GROWTH, WATER QUALITY, AND DISEASE RESISTANCE AGAINST *Vibrio parahaemolyticus* INFECTION IN PACIFIC WHITE SHRIMP *Litopenaeus vannamei* RAISED IN STATIC BIOFLOC SYSTEMS
- 11:30 Loc Tran**
SHRIMP VET FARMING TECHNOLOGIES AIM TO REVOLUTIONIZE VIETNAM'S SHRIMP SECTOR

- 11:45 Lorenzo Juarez**, Ignacio Linares, Ann-Chang Cheng, Hsiao-Tung Chang, Ting-Yu Lee, Jin-Seng Lin, Chun-Hung Liu
 PROPRIETARY FORMULATION OF LACTIC ACID BACTERIA IMPROVES GROWTH, FEED CONVERSION, AND TOLERANCE TO INFECTION BY *Enterocytozoon hepatopenaei* AND *Vibrio alginolyticus* IN WHITE SHRIMP *Penaeus vannamei*: INSIGHTS INTO IMMUNE AND METABOLIC PATHWAY MODULATION
- 12:00 M. del Pilar Sánchez-Saavedra**, Fátima Castro-Ochoa
 BIOPROSPECTING FOR LIPID PRODUCTION OF ELEVEN MICROALGAE STRAINS FOR SUSTAINABLE BIOFUEL PRODUCTION

PROTEIN AND FEED INGREDIENTS

Monday, March 10 8:30 AM - 4:30 PM Galerie 3

Chair: Vikas Kumar

- 8:30 Sunnia Chiang**, Greer Long, Timothy J. Bruce, D. Allen Davis
 EFFECTS OF SOYBEAN MEAL, ENZYME TREATED SOYBEAN MEAL AND CORN-FERMENTED PROTEIN MEAL IN THE DIETS ON GROW-OUT STAGE OF CHANNEL CATFISH *Ictalurus punctatus* CULTURING IN POND RACEWAYS SYSTEM
- 8:45 Vikas Kumar**, Maryam Kazemi
 DIETARY INCLUSION OF WHOLE INSECT LARVAL MEAL AND ORGANIC ACID (SODIUM BUTYRATE) IMPROVE THE SOYBEAN MEAL UTILIZATION IN RAINBOW TROUT *Oncorhynchus mykiss*
- 9:00 Krishna Singha**, Brian Small, Vikas Kumar
 FISH SOLUBLE AS A FUNCTIONAL FEED INGREDIENT TO ENHANCE SOYBEAN MEAL UTILIZATION IN TWO STRAINS OF RAINBOW TROUT *Oncorhynchus mykiss*
- 9:15 Pallab Sarker**, Anne Kapuscinski, Brandi McKuin, Benjamin Schoffstall, Manny Labbe, Devin Fitzgerald, Connor Greenwood, Kira O'Shelski, Emily Pasion, Duncan Gwynne, Diego Orcajo, Sofie Andrade
 TOWARDS SUSTAINABLE FISH-FREE AQUAFEEDS: EVALUATING MICROALGAL PRODUCTS FOR REPLACEMENT OF FISH MEAL AND FISH OIL IN AQUACULTURE DIETS FOR RAINBOW TROUT *Oncorhynchus mykiss*
- 9:30 Femi Fawole**, Samuel Abolarin, Ameerah Adeyemi, Iyiola Olajide, Oluwatobi Oyeniyi, Abideen Abdulkadir, Shamna Nazeemashahul
 THE EFFECT OF *Ixora coccinea* ALONE OR IN COMBINATION WITH PROPIONIC ACIDS ON ZOOTECHNICAL INDICES, HEMATOLOGICAL PARAMETERS, AND ANTIOXIDANT ENZYME RESPONSES OF NILE TILAPIA *Oreochromis niloticus*

9:45 Sunnia Chiang, Trinh Ngo, Jamison L. Semla, Timothy J. Bruce, D. Allen Davis
EFFECTS OF REPLACING SOYBEAN MEAL PROTEIN WITH VARIOUS PROCESSING SOY PROTEIN SOURCES IN THE DIETS ON THE GROWTH OF JUVENILE NORTHERN LARGEMOUTH BASS *Micropterus nigricans*

10:00 BREAK

10:30 Michael Habte-Tsion
EVALUATION OF ALTERNATIVE PROTEIN SOURCES IN THE DIETS OF FINFISH USING GROWTH, PHYSIO-BIOCHEMICAL AND MOLECULAR APPROACHES

10:45 Krishna Singha, Brian Small, Vikas Kumar
STRAIN-SPECIFIC RESPONSE TO STRATEGIC REDUCTION OF SOY PROTEIN CONCENTRATE BY INCREASING SOYBEAN MEAL IN THE DIET OF RAINBOW TROUT *Oncorhynchus mykiss*

11:00 Vikas Kumar, Jie Ma, Krishna Singha, Brian Small
A NUTRIGENOMIC STRATEGY TO DETERMINE THE OPTIMUM LEVELS OF SOYBEAN MEAL AND SOY PROTEIN CONCENTRATE FOR THE ENHANCEMENT OF NON-SPECIFIC PATHOGEN RESISTANCE IN RAINBOW TROUT

11:15 M. Gibson Attar, Jami de Jesus, Jonathan Flowers, Robert J. Barry, Michael B. Williams, Jeri L. Brandom, Stephen A. Watts
EVALUATION OF SINGLE CELL PROTEIN DIETS FOR THE ZEBRAFISH *Danio rerio*

11:30 Aubrey Dissinger, Karolina Kwasek
SWITCHING IT UP: MIXED FEEDING PLAN MAY LEAD TO IMPROVED UTILIZATION OF DIETARY PLANT PROTEIN

11:45 Marzieh Isavi, Paul Morris, Vikas Kumar
THE PHYTOBIOTIC EFFECTS OF *Spirulina platensis* ON GROWTH PERFORMANCE, IMMUNE RESPONSE, AND SKIN COLOR OF RAINBOW TROUT *Oncorhynchus mykiss*

12:00 LUNCH

1:00 Yoonhang Lee, Marina Benito, Brent Vulglar, Timothy Bruce, Vikas Kumar
INTEGRATIVE STRATEGIES FOR ENHANCING GUT AND LIVER HEALTH IN SALMONIDS: ADDRESSING CHALLENGES OF SOYBEAN MEAL AND FUNCTIONAL FEED SOLUTIONS

MONDAY

- 1:15 Jing Huang**, Heather Jordan, Caitlin Older, Matt Griffin, Peter Allen, David Wise, Sara Ugulino, Larissa da Cunha, Andre Nobre, Penelope Goodman, Grant Reifers, Fernando Yamamoto
ASSESSING THE COMPLETE REPLACEMENT OF FISHMEAL WITH ANIMAL BY-PRODUCTS OR SOYBEAN MEAL IN CHANNEL CATFISH FINGERLING DIETS: IMPACTS ON PRODUCTION PERFORMANCE AND DISEASE RESISTANCE
- 1:30 Femi Fawole**, Aishat Abdulwahab, Oyinlola Adisa, Precious Ibiniyi, Adam Abdullahi, Akeem Ahmed, Benjamin Emikpe
DIETARY EFFECT OF *Cnidoscopus aconitifolius* LEAF POWDER ON GROWTH, HEMATO-BIOCHEMICAL PARAMETERS, AND LIVER HISTOLOGY OF HYBRID CATFISH (*Clarias gariepinus* ♀ × *Heterobranchus longifilis* ♂)
- 1:45 Femi Fawole**, Qianna Moncur, Craig Schluttenhofer, KrishnaKumar Nedunuri, Waldemar Rossi, Brandy E. Phipps
INDUSTRIAL HEMP MEAL: A PROMISING ALTERNATIVE FOR SUSTAINABLE AQUACULTURE
- 2:00 Omolola Betiku**, Jonathan Giles, Halleluyah Ademilua, Stephen Leong, Johnny Grace, Paul Wills
PERFORMANCE AND MICROBIAL COMPOSITIONS OF JUVENILE BLUEGILL FED TWO DIFFERENT PROTEIN DIETS

TILAPIA

Monday, March 10 8:30 AM - 4:30 PM Galerie 5

Chair: Kevin Fitzsimmons

- 8:30 Bundit Yuangsoi**, Siriporn Tola
GROWTH AND PHYSIOLOGICAL RESPONSE OF NILE TILAPIA *Oreochromis niloticus* FED A DIETARY SAPONIN
- 8:45 Festus I. Adeosun**, Olamide Modinat Adeosun, Funmilayo B. Oyekanmi, Oluwadamilola Olemoh
EVALUATION OF STOMACH CONTENT AND FEEDING HABITS OF *Tilapia zillii* IN LOWER OGUN RIVER, AKOMOJE WATER RESERVOIR, NIGERIA
- 9:00 Bola Joyce Akin-Obasola**, Oluwatomisin Adediji Oyekanmi, Samuel Oluwaseyi Oyewole
STERILITY EFFECTS OF *Petiveria alliacea* (GUINEA HEN WEED) ROOT BARK MEAL ON THE JUVENILE OF *Oreochromis niloticus* (NILE TILAPIA)
- 9:15 Israt Mishu**, Abdullahi Idowu, Lindee Mason, Ahmed Mustafa
ENHANCEMENT OF STRESS RESILIENCE AND IMMUNE FUNCTION IN NILE TILAPIA *Oreochromis niloticus* FED TRYPTOPHAN-SUPPLEMENTED DIET

- 9:30 Manal Ali**, Lindee Mason, Ahmed Mustafa
EFFECTS OF AQUAPONIC FORMULATED FEED ON NILE TILAPIA
Oreochromis niloticus HEALTH AND ON NUTRIENT DENSITY IN THAI BASIL
- 9:45 Sydney Scherrer**, Lindee Mason, Makayla Hamm, Israt Mishu, Abdullahi Idowu,
Ahmed Mustafa
EFFECTS OF HIGH AMMONIA AND DELAYED SAMPLING TIME ON NILE
TILAPIA *Oreochromis niloticus*
- 10:00 BREAK**
- 10:30 Baba Usman Ibrahim**, Dennis Balogu, Abdu Yunusa
FOOD AND FEEDING HABITS OF THE CICHLIDAE IN TAGWAI RESERVOIR,
NIGER STATE, NIGERIA
- 10:45 Chinnaiiah Amutha**
EFFECTS OF ZNO NANOPARTICLES ON *Oreochromis mossambicus* USING
MOLECULAR ENZYME BIOMARKER
- 11:00 Tucker Graff**, D. Allen Davis, Sajid Alavi
IMPACT OF PARTICLE SIZE ON PHYSICAL QUALITY AND IN-VIVO
PERFORMANCE OF GRAIN SORGHUM-BASED FEED FOR TILAPIA
Oreochromis niloticus
- 11:15 Andrew Masciola**, Kevin Fitzsimmons
DEVELOPMENT OF AN INSECT-BASED FEED USING BLACK SOLDIER
FLY *Hermetia illucens* FOR NILE TILAPIA *Oreochromis niloticus* IN A
RECIRCULATING AQUAPONIC SYSTEM
- 11:30 Tigist Amare**, Trond Storebakken, Turid Mørkøre, Ajebu Nurfeta,
Øystein Ahlstrøm
POTENCY OF CASSAVA LEAF AS PROTEIN SOURCE FOR NILE TILAPIA
Oreochromis niloticus
- 11:45 Gebremedihin Gebreanenia Bsrat**, Abebe Getahun, Adamneh Dagne
EFFECT OF STRAIN VARIATION ON GROWTH PERFORMANCE AND BODY
PROXIMATE COMPOSITION OF THREE STRAINS OF *Oreochromis niloticus* L.
(1758) UNDER GREENHOUSE CONDITION
- 12:00 LUNCH**
- 1:00 Kevin Fitzsimmons**
2024 GLOBAL REVIEW OF TILAPIA PRODUCTION AND MARKETS

- 1:30 Israel Adebayo**, H.O. Akinnola
UTILIZATION OF WOLFFIA MEAL IN THE DIETS OF GENETICALLY IMPROVED FARMED TILAPIA (GIFT) JUVENILES
- 1:45 Robert Yadama Laar**, Henry Owusu Agyei, Jedida Osei Bediako, Harriya Musah Yussif, Kwasi Adu Obirikorang
BEHAVIORAL RESPONSE OF NILE TILAPIA *Oreochromis niloticus* TO SIMULATED AVIAN PREDATION: EFFECTS OF HYPOXIA AND FEED AVAILABILITY
- 2:00 Sonia A. Soto-Rodriguez**, Francis I. Marrujo Lopez, Karla G. Aguilar-Rendon, Rafael Hernández Guzmán
PREVALENCE OF PATHOGENIC BACTERIA IN NILE TILAPIA *Oreochromis niloticus* FARMED IN SOUTHWEST MEXICO: A REAL-TIME PCR ASSAY
- 2:15 Farhad Rajabipour**, Nassrin Mashaii
HEALTH INVESTIGATION OF TILAPIA INDOOR BREEDING SYSTEMS
- 2:30 BREAK**
- 3:00 Tafadzwa Maredza**, Charles Mutisi, Vimbai Hamandishe, Hillary Mugiyo, Claudious Gufe
MITIGATING AFLATOXIN B1 (AFB1) TOXICITY IN NILE TILAPIA *Oreochromis niloticus* FEED USING NATURAL CLAY CHISUMBANJE VERTISOL
- 3:15 Roberto Cruz-Flores**, Jocelyne García Armenta, Olivia Cabanillas-Bernal, Jorge Cáceres-Martínez
IDENTIFICATION OF A NOVEL ANTIMICROBIAL RESISTANCE-ASSOCIATED MEGAPLASMID IN *PSEUDOMONAS* SP. FROM DISEASED TILAPIA *Oreochromis niloticus*
- 3:30 Kassaye Workagegn**, Bantalem Akalua, Natarajan Pavanasama
GROWTH PERFORMANCE EVALUATION OF IMPROVED AND WILD NILE TILAPIA FINGERLINGS UNDER POND REARING CONDITIONS
- 3:45 Abdul Mateen**
EVALUATING THE INFLUENCE OF STOCKING DENSITY ON GROWTH INDICES, CARCASS COMPOSITION AND MICROBIAL DYNAMICS OF *Oreochromis niloticus* UNDER BIOFLOC CULTURE

LARGEMOUTH BASS

Monday, March 10 8:30 AM - 12:00 PM Salon C

Chair: Ken Semmens

- 9:00 Andrew Stephanus**, Sandhya Lamichhane, Kenneth Semmens
ASSESSMENT OF ZOOPLANKTON IN MANAGED NURSERY PONDS AND FLOATING RACEWAYS FOR PRODUCTION OF PHASE ONE LARGEMOUTH BASS *Micropterus nigricans*
- 9:15 Sandhya Lamichhane**, Ken Semmens
FEED TRAINING EVALUATION OF PHASE ONE LARGEMOUTH BASS PRODUCED IN MANAGED NURSERY PONDS AND FLOATING IN-POND RACEWAYS
- 9:30 Koaw Zaczek**, Hannah Holmquist, Asyeh Sohrabifar, Giovanni Molinari, Robert Rode, Paul Brown, Karolina Kwasek, Habibollah Fakhraei, James Garvey
ALTERNATIVE POND-BASED PRODUCTION SYSTEMS FOR REARING OF FINGERLING LARGEMOUTH BASS *Micropterus nigricans*
- 9:45 Asyeh Sohrabifar**, Koaw Zaczek, Hannah Holmquist, Giovanni Molinari, Robert Rode, Paul Brown, Karolina Kwasek, Habibollah Fakhraei, Garvey James
INVESTIGATING NITROGEN CYCLE AND WATER QUALITY IN ALTERNATIVE POND-BASED PRODUCTION SYSTEMS FOR THE REARING OF LARGEMOUTH BASS *Micropterus nigricans*
- 10:00 BREAK**
- 10:30 Rebecca Lochmann**
NUTRITION AND FEEDING PRACTICES FOR LARGEMOUTH BASS – A REVIEW
- 10:45 Jamison L. Semla**, Ian Butts, D. Allen Davis, Timothy Bruce
GROWTH PERFORMANCE AND HEALTH OF FINGERLING LARGEMOUTH BASS *Micropterus salmoides* FED FERMENTED CORN PROTEIN
- 11:00 Faith Ohwofasa**, Kenneth Semmens
DEVELOPMENT OF RELATIVE TEMPERATURE GROWTH INDEX (RTGI) FOR LARGEMOUTH BASS *Micropterus nigricans*
- 11:15 Kenneth Semmens**
USE OF RELATIVE GROWTH TEMPERATURE INDEX (RGTI) TO ESTIMATE POTENTIAL GROWTH AND DAILY RATION FOR LARGEMOUTH BASS ACROSS BOTH WATER TEMPERATURE AND FISH SIZE
- 11:30 Mark Johannemann**, Tyler McKay, James Brown, Dawson Armstrong, Kenneth Semmens
OBSERVATIONS ON GROWTH OF MALE AND FEMALE LARGEMOUTH BASS IN PONDS AND FLOATING RACEWAYS

MONDAY

ECHINODERMS

Monday, March 10 8:30 AM - 2:30 PM Salon B

Chairs: Andrew Suhrbier, Aaron Pilnick

- 8:30 Yuanzi Huo**, Mark Drawbridge
SPAWNING, AND OPTIMIZING TEMPERATURE AND SETTLEMENT INDUCERS IN LARVAL REARING OF THE WARTY SEA CUCUMBER *Apostichopus parvimensis*
- 8:45 Jeff Hetrick**
HUSBANDRY OF THE CALIFORNIA GIANT SEA CUCUMBER *Parasitichus californicus*: UPDATE FROM ALASKA
- 9:00 Skyler Oliver**, Michael B. Williams, Jeri L. Brandom, Asim K. Bej, Stephen Watts
MIXED METHODS AND MURKY MICROBIOMES: A LITERATURE REVIEW OF CURRENT MICROBIAL PROFILES AND ASSOCIATED CHALLENGES IN SEA URCHIN STUDIES
- 9:15 Coleen C. Suckling**, Brendan Elba, Andrew J. Davies
ASSESSING THE IMPACTS OF CLIMATE CHANGE ON SEA URCHIN PRODUCTION
- 9:30 Victoria Gibbs**, Stephen Watts
LARVAL MICROCULTURE OF THE SEA URCHIN *Lytechinus variegatus*
- 9:45 Charley E. Westbrook**, Jonathan Daly, Brian W. Bowen, Mary Hagedorn
DEVELOPMENT OF A CRYOPRESERVATION PROTOCOL FOR THE COLLECTOR URCHIN *Tripneustes gratilla*
- 10:00 BREAK**
- 10:30 Raven Edwards**, Jami de Jesus, Jeri Brandom, Michael Williams, Victoria Gibbs, Stephen Watts
IMPACTS OF TANK DIMENSION AND STOCKING DENSITY ON GROWTH AND NUTRIENT ALLOCATION IN THE SEA URCHIN *Lytechinus variegatus* IN A COMMERCIAL RECIRCULATING AQUACULTURE SYSTEM
- 10:45 Aaron Pilnick**, Casey Hudspeth, Joshua Yang, Joshua Patterson
PRODUCTIVITY IMPROVEMENTS FOR LONG-SPINED SEA URCHIN *Diadema antillarum* AQUACULTURE FROM SETTLEMENT THROUGH JUVENILE GROWOUT
- 11:00 Kierstin Thigpen**, Luke Gardner, Scott Hamilton
THE DEVELOPMENT OF UNI IN PURPLE SEA URCHINS COLLECTED FROM CENTRAL CALIFORNIA COAST BARRENS

- 11:15 Jami de Jesus**, Raven Edwards, Joseph Cortez, Adam Boyd, Skyler Oliver, Jeri Bandom, Michael Williams, Victoria Gibbs, Stephen Watts
EFFECTS OF SINGLE-CELL DIETARY PROTEIN SOURCES ON GROWTH AND NUTRIENT ALLOCATION IN THE SEA URCHIN *Lytechinus variegatus*
- 11:30 Matthew Elliott**, Katherine Roy, Yuanzi Huo, Mark Drawbridge
ENHANCEMENT OF GONAD SIZE AND QUALITY IN PURPLE SEA URCHIN *Strongylocentrotus purpuratus* FED A FORMULATED DIET, *Macrocystis pyrifera*, AND NUTRIENT-ENRICHED *Ulva australis* AND *Devaleraea mollis*
- 11:45 Ailet Vives**, Bertha Patricia Ceballos-Vázquez, Roberto Civera-Cerecedo, Tamara Rubilar
CONSUMPTION OF DIFFERENT BALANCED DIETS IN THE EDIBLE SEA URCHIN *Tripneustes depressus*

12:00 LUNCH

- 1:00 Brendan Elba**, Coleen Suckling
EVALUATING THE EFFICACY OF THE GREEN SEA URCHIN *Strongylocentrotus drobachiensis* TO MITIGATE BIOFOULING WHEN CO-CULTURED WITH ATLANTIC SEA SCALLOPS *Placopecten magellanicus*

- 1:15 Coleen Suckling**, Brendan Elba, Christopher Jenkins
INTEGRATING GRAZING SEA URCHINS WITH SHELLFISH CAN REDUCE BIOFOULING

- 1:30 Auden Grant**, Meghan Turner, Jennifer Bailey, Anthony Siccardi
EFFECT OF DIET AND GUT MICROBIOME ON SEA URCHIN *Lytechinus variegatus* PERFORMANCE AND TOXICOLOGICAL OUTCOMES

**SHELLFISH HATCHERIES –
EMERGING ISSUES AND SOLUTIONS**

Monday, March 10 8:30 AM - 12:00 PM Balcony J

Chairs: Thiyagarajan (Rajan) Vengatesen, Don Webster, Allen Pattillo

- 8:30 Ahmed S.A. Abbas**, Samantha Glover, Brandylyn L. Thomas, Aubrey E. McDermott, Emily B. Rivest
EFFECTS OF COLD HOLDING DURATION AND SUBSEQUENT WARMING REGIME ON THE PHYSIOLOGY OF EASTERN OYSTER SEED

- 8:45 MacKenna Hainey**, Jeremy Jennings, Alex Zinck, Henry Fleener, Chris Langdon
THE EFFECTS OF OCEAN ACIDIFICATION ON PACIFIC OYSTER LARVAE FROM STRESSED AND NON-STRESSED BROODSTOCK

- 9:00 Savannah Stresser**, Brian Beal, Tessa Houston, David Veilleux
HIGH-SPEED IMAGING IN AQUACULTURE: APPLICATIONS OF FLOW
IMAGING MICROSCOPY IN SHELLFISH HATCHERIES
- 9:15 Shawn Glover**, Jennifer Long, Martin Mallet, Claire Carver
OPTIMIZING ALGAL PRODUCTION AS A SHELLFISH HATCHERY FEED:
ALGAL HARVESTING STRATEGIES AND THEIR IMPACT ON FATTY ACID
COMPOSITION IN THE MARINE DIATOM *Chaetoceros muelleri*
- 9:30 Darren de Silva**, Zachary Kowash, Angelina Lopez-Peinado, William Schoeneck,
Marni Farrel, Henry Fleener, Neil Thompson
EFFECTS OF INCLUDING *Nannochloropsis oculata* WITHIN A MIXED ALGAL
DIET ON GROWTH AND SURVIVAL OF PACIFIC OYSTER *Crassostrea*
(*Magallana*) *gigas* LARVAE AND SPAT
- 9:45 Casey Silva**, Zach Harrison
THE ESTIMATED MARKET POTENTIAL FOR A COMMERCIAL SHELLFISH
SEED HATCHERY IN NORTH CAROLINA
- 10:00 BREAK**
- 10:30 Vengatesen Thiyagarajan**, Ziniu Yu, Shu Xiao, Guofan Zhang, Li Li, Weiwei You,
Xiaotong Wang, Lingling Wang, Linsheng Song, Clarence Chung, Tan Shau Hwai,
San Van Vu, Ximing Guo, Qi Li
OYSTERS, THEIR HATCHERY AND CLIMATE CHANGE IN CHINA AND
SOUTHEAST ASIA: CHALLENGES, OPPORTUNITIES AND THE WAY
FORWARD
- 10:45 Ben Doshier**, Rachel Moseley, Megan Gima, Leila Hamdan, Egan Rowe,
sabelle Townsend, Reginald Blaylock
MICROBIOME IN A RECIRCULATING, ARTIFICIAL SEA WATER HATCHERY
FOR LARVAL PRODUCTION OF THE EASTERN OYSTER *Crassostrea virginica*

CONNECTING UNIVERSITY SHELLFISH AQUACULTURE RESEARCH FARMS

Monday, March 10 8:30 AM - 2:45 PM Galerie 4

Chairs: Bill Walton, Madeline Pitsenbarger

- 8:30 Madeline Pitsenbarger, William Walton**
CONNECTING UNIVERSITY SHELLFISH AQUACULTURE RESEARCH FARMS
- 8:45 Christopher Hollenbeck, Michaela Rust, Joseph Matt**
A RESEARCH OYSTER FARM IN CORPUS CHRISTI BAY ASSOCIATED WITH TEXAS A&M UNIVERSITY-CORPUS CHRISTI AND TEXAS A&M AGRILIFE RESEARCH
- 9:00 Elizabeth Robinson, Wood Oglesby, Earl Melancon**
LOUISIANA SEA GRANT OYSTER RESEARCH LAB AND OYSTER FARM IN GRAND ISLE, LOUISIANA
- 9:15 Andrea Tarnecki, Scott Rikard**
APPLIED SHELLFISH RESEARCH AT THE AUBURN UNIVERSITY SHELLFISH LABORATORY, DAUPHIN ISLAND, ALABAMA
- 9:30 Thomas Bliss, Justin Manley, John Pelli**
THE SHELLFISH RESEARCH LABORATORY SHELLFISH TRAINING AREA AT THE UNIVERSITY OF GEORGIA MARINE EXTENSION SERVICE AND GEORGIA SEA GRANT
- 9:45 Tal Ben-Horin, Bryan Snyder, Dave Cerino, Eric Herbst**
THE NC SEA GRANT SHELLFISH MARICULTURE AND DEMONSTRATION CENTER AT CARTERET COMMUNITY COLLEGE AND NC STATE UNIVERSITY
- 10:00 BREAK**
- 10:30 Tom Schultz, Juliet Wong**
DUKE AQUAFARM: A DEMONSTRATION SITE FOR OYSTER AQUACULTURE RESEARCH, EDUCATION, AND COMMUNITY ENGAGEMENT
- 10:45 Jessica Small**
OVERVIEW OF RESEARCH FARM SITES OPERATED BY THE AQUACULTURE GENETICS AND BREEDING TECHNOLOGY CENTER
- 11:00 William Walton, Madeline Pitsenbarger, Jordan Lynch**
THE COMMERCIAL SHELLFISH AQUACULTURE LAB AND TEAM RESEARCH FARM AT THE VIRGINIA INSTITUTE OF MARINE SCIENCE

MONDAY

- 11:15 Matthew W. Gray**
EXPANSION AND RESEARCH DEVELOPMENTS AT THE UMCES OYSTER DEMONSTRATION FARM AT HORN POINT LABORATORY
- 11:30 Alyssa Campbell**, Dennis McIntosh, Brendan Campbell, Rileigh Hudock, Edward Hale
AN UPDATE ON DELAWARE'S PILOT SHELLFISH HATCHERY
- 11:45 Ximing Guo**, Samuel Ratcliff, Zhenwei Wang, Jillian Jamieson, Paul Coyne, Alyssa O'Hala, Noah Chriss, Joseph Gabris III
SHELLFISH BREEDING AT RUTGERS HASKIN SHELLFISH RESEARCH LABORATORY
- 12:00 Hisham Abdelrahman**, Robert Holmberg
FROM HATCHERY TO FARM: ADVANCING SHELLFISH AQUACULTURE RESEARCH, EDUCATION, AND COLLABORATION AT ROGER WILLIAMS UNIVERSITY, RHODE ISLAND
- 12:15 Joshua Reitsma**, Abigail Archer, Rachel Hutchinson
COOPERATIVE RESEARCH IN MASSACHUSETTS; USING A RESEARCH FARM PLATFORM TO EXPLORE OPPORTUNITIES FOR SHELLFISH GROWERS
- 12:00 LUNCH**
- 1:30 Thomas Kiffney**, Adam St. Gelais, Dana Morse, Paul Rawson, Sarah Lacourciere, Brandon Harris, Craig Condon, Robert Cuddy, Meggan Dwyer, Damian Brady
SUPPORTING INDUSTRY AND RESEARCH: EXPERIMENTAL FARMING OF KELP AND SHELLFISH AT THE UNIVERSITY OF MAINE'S DARLING MARINE CENTER
- 1:45 Dana Morse**, Chris Bartlett, Beth Bisson, Annie Fagan, Keri Kaczor, Jaclyn Robidoux, Natalie Springuel, Gayle Zydlewski
AQUACULTURE EXTENSION PROGRAMMING AT MAINE SEA GRANT
- 2:00 DISCUSSION**

OFFSHORE AQUACULTURE

Monday, March 10 8:30 AM - 2:30 PM Galerie 2

Chairs: Tyler Sclodnick, Corey Sullivan

- 8:30 Tori Spence McConnell**
WHAT'S NEXT FOR OPEN OCEAN AQUACULTURE MANAGEMENT IN THE PACIFIC ISLANDS
- 8:45 Drue Banta Winters**
U.S. FEDERAL LEGISLATIVE UPDATE ON OFFSHORE AQUACULTURE
- 9:00 Mikaela Freeman**, Lysel Garavelli, Ruth Branch
OPPORTUNITIES FOR THE CO-LOCATION OF AQUACULTURE AND MARINE ENERGY
- 9:15 Poppy Brittingham**, Rod Fujita
WHAT WILL WE GROW HERE? AN ANALYSIS OF CANDIDATE SPECIES FOR OPEN OCEAN AQUACULTURE IN THE UNITED STATES
- 9:30 Donna Lanzetta**
OFFSHORE FARM PERMITTING – THE ULTIMATE COLLABORATION
- 9:45 Gavin Kay**, Neil Anthony Sims, Jennica Lowell-Hawkins
THE PRECAUTIONARY PRINCIPLE, THE PERMIT PROCESS, PERSISTENCE AND PIVOTS – AN UPDATE ON OCEAN ERA'S OFFSHORE INITIATIVES
- 10:00 BREAK**
- 10:30 Don Kent**
DEVELOPMENT OF AN ENVIRONMENTAL REVIEW FOR A SOUTHERN CALIFORNIA OFFSHORE FARM FOR CALIFORNIA YELLOWTAIL *Seriola dorsalis*
- 10:45 Catherine Purcell**, Jason Volk, John Hyde, Greg Blair
USING OMEGA TO MODEL GENETIC RISKS OF ESCAPED FISH ASSOCIATED WITH OFFSHORE FINFISH CULTURE: AN EXAMPLE USING THE PROPOSED PACIFIC OCEAN AQUAFARMS OPERATION IN SOUTHERN CALIFORNIA
- 11:00 Mads Birkeland**, José Antonio Arenas, Flemming Thorbjørn Hansen
INTEGRATED MODELING APPROACHES FOR ANALYZING NET PEN AQUACULTURE ENVIRONMENTAL STRESSORS

MONDAY

- 11:15 John Oldman**, Josh van Berkel, Kalyan Chakravarthy, Mikkel Andersen, Jing Fen Chua, Michael Bell
BIOGEOCHEMICAL WATER QUALITY MODELING OF PROPOSED PACIFIC OCEAN AQUAFARMS SITES – A PRECEDENT APPROACH FOR PERMITTING ANALYSES
- 11:30 Michael Rust**
CAN WE PUT SCIENCE INTO REGULATION? A DISCUSSION
- 11:45 Michael Coogan**
ASSESSING THE ENVIRONMENTAL IMPACT OF AN OCEAN FISH FARM IN HAWAII: A 12 YEAR CASE STUDY
- 12:00 Tomonari Furukawa**, Long Wang, Brendan Englot, Lei Zuo
LIGHT-DUTY AUTONOMOUS UNDERWATER ROBOT FOR OFFSHORE AQUACULTURE
- 12:15 Tomonari Furukawa**, Malori Oxford, Nathan Vu
COOPERATIVE LOCALIZATION AND NAVIGATION OF UNMANNED UNDERWATER AND SURFACE VEHICLES FOR OPEN OCEAN AQUACULTURE
- 12:00 LUNCH**
- 1:30 Longhuan Zhu**, Md. Mamun Patwary, Jackson Perkins, Igor Tsukrov, Michael Chambers, David Fredriksson
THE DESIGN OF A KELP FARM FOR THE UNIVERSITY OF NEW HAMPSHIRE OFFSHORE AQUACULTURE SITE
- 1:45 Md. Mamun R. Patwary**, Corey Sullivan, Longhuan Zhu, Igor Tsukrov, Michael Chambers, David W. Fredriksson
MOORING STRUCTURAL LOADS ON A COMMUNITY-SCALE INTEGRATED MULTI-TROPHIC AQUACULTURE (IMTA) SYSTEM FOR THE GULF OF MEXICO
- 2:00 Daphne M. Munroe**, Laura Steeves, Sarah Borsetti, Sam Martin, Tom Dameron, Joe Myers
EXPERIMENTAL OFFSHORE AQUACULTURE OF THE ATLANTIC SURFCLAM *Spisula solidissima*

VISIONARY OPPORTUNITIES IN AQUACULTURE GENOMICS – CONTINUED

Monday, March 10 8:30 AM - 2:30 PM Balcony M
Chairs: Mike Phelps, Louis Plough, Eric Saillant, Jon Puritz

- 8:30 Ximing Guo**
GENETIC IMPROVEMENT OF OYSTERS AND THE PROSPECTS OF GENOMIC SELECTION
- 9:00 Thomas A. Delomas**
AN OPEN-SOURCE DATABASE INTERFACE TO STORE GENOTYPE, PHENOTYPE, AND PEDIGREE DATA FOR BREEDING PROGRAMS
- 9:15 Samuel May**, Samantha Beck, Maren Wellenreuther, Emmanuel Lozada-Soto
BREEDING FOR THE FUTURE: ENHANCING RESILIENCE IN AQUACULTURE WITH GENOMIC OFFSETS
- 9:30 Shelly Wanamaker**, Emma Strand, Steven Roberts, Bassem Allam
MINING OMICS DATASETS FOR RESILIENCE BIOMARKERS TO IMPROVE OYSTER BREEDING AND MANAGEMENT STRATEGIES
- 9:45 Zhenwei Wang**, Sandra Casas, Jerome La Peyre, Mason Williams, Andrea Tarnecki, Scott Rikard, David Bushek, Ximing Guo
IMPROVEMENT IN DERMAL RESISTANCE OF THE EASTERN OYSTER *Crassostrea virginica* AFTER TWO GENERATIONS OF GENOMIC SELECTION
- 10:00 BREAK**
- 10:30 Joseph Matt**, Allison Weber, David Portnoy, Christopher Hollenbeck
APPLICATION OF LOW-COST GENOTYPING STRATEGIES FOR GENETIC IMPROVEMENT OF CULTURED *Crassostrea virginica* IN TEXAS
- 10:45 Guglielmo Raymo**, Ridwan Ahmed, Ali Ali, Rafet Al-Tobasei, Mohamed Salem
FUNCTIONAL INTERROGATION OF THE DE-NOVO RAINBOW TROUT MICROBIAL GENOME ATLAS REVEALS LONGSTANDING SYMBIOTIC HOST-BACTERIA INTERRELATIONSHIP
- 11:00 Robin Varney**, Jessica Small
IS HOOKING HERITABLE? EVALUATION OF GENETIC PARAMETERS FOR HOOK SHELL TRAIT IN THE EASTERN OYSTER *Crassostrea virginica*

MONDAY

- 11:15 Ji Hun Lee**, Dileepa Spripal Liyanage, Welivitiye Kankanamge Malithi Omeka, Herath Mudiyanseelage Viraj Udayantha, Jeongeun Kim, Gaeun Kim, Yasara Kavindi Kodagoda, Hanchapola Appuhamillage Chanuka Ravindu Hanchapola, Mantigalla Arachchige Hasitha Dilshan, Duwage Chandima Gihan Rodrigo, Ganepola Arachchige Nipuni Piyumika Ganepola, Mun-kwan Kim, Taehyug Jeong, Sukkyoung Lee, Jehee Lee
DEVELOPMENT OF OPTIMIZED GENOMIC PREDICTION MODELS TO ENHANCE GROWTH PERFORMANCE OF OLIVE FLOUNDER *Paralichthys olivaceus* UNDER EXTRUDED PELLET FEEDING REGIME
- 11:30 Debbie Plouffe**, Alejandro Gutierrez, Klara Verbyla, Simon Hill, John Buchanan
HARNESSING EFFICIENT GENETIC IMPROVEMENT TO MAXIMIZE ECONOMIC RETURN IN OYSTERS
- 11:45 Jessica Small**, Klara Verbyla, Peter Kube, Robin Varney, Alejandro Gutierrez, Standish K. Allen, Jr.
IMPLEMENTATION OF GENOMIC SELECTION IN THE EASTERN OYSTER *Crassostrea virginica* AT THE AQUACULTURE GENETICS AND BREEDING TECHNOLOGY CENTER, IN THE MID-ATLANTIC USA
- 12:00 Heather King**, Huiping Yang, Leslie Sturmer, Christopher Hollenbeck, Jim Stoeckel, Scott Rikard, Megan Gima, Jason Stannard, Kelly Lucas, Andrea Tarnecki, Eric Saillant
SECOND GENERATION SELECTION RESPONSE OF GULF OF MEXICO EASTERN OYSTER *Crassostrea virginica* BRED FOR PERFORMANCE IN LOW AND HIGH SALINITY ENVIRONMENTS
- 12:15 LUNCH**
- 1:00 Allison R. Weber**, Joseph L. Matt, Thomas Delomas, Jessica Small, David S. Portnoy, Christopher M. Hollenbeck
OPTIMIZATION AND VALIDATION OF A MICROHAPLOTYPE-BASED GENOTYPING PANEL FOR *Crassostrea virginica*
- 1:15 Jason W. Abernathy**, Miles D. Lange, Craig A. Shoemaker, Johanna E. Aldersey, Julio C. Garcia, Dunhua Zhang, Troy J. Bader, Benjamin H. Beck
WHOLE AND SINGLE CELL TRANSCRIPTOME ANALYSES OF THE HEPATOPANCREAS FROM PACIFIC WHITE SHRIMP *Litopenaeus vannamei* POST EXPOSURE TO *Vibrio* TOXINS
- 1:30 Tim Bean**, Ambre Chapuis, Alexandra Florea, James Furniss, Tim Regan, Pooran Dewari
SINGLE-NUCLEI RNASEQ ANALYSIS OF AN OSHV-1 INFECTION IN PACIFIC OYSTERS REVEALS CELL SPECIFIC INFECTION AND RESPONSES

- 1:45 Linnea Andersen**, Jason Abernathy, Bradley Farmer, Miles Lange, Nithin Sankappa, Matthew McEntire, Steven Rawles
MACHINE LEARNING ANALYSIS OF GENE EXPRESSION PATTERNS IN STRIPED BASS, WHITE BASS, AND THEIR HYBRID FOLLOWING BACTERIAL INFECTIONS
- 2:00 Arun Dhar**, Hung Mai, Nguyen Dinh-Hung
ENGINEERING AN INFECTIOUS FISH VIRAL NERVOUS NECROSIS (VNN) CLONE IN INSECT CELLS: IMPLICATIONS FOR FISH GENOME ENGINEERING AND ORAL VACCINE DEVELOPMENT
- 2:15 Chaya Gaberria**, Michael Phelps
MULTI SITE GENE TARGETING USING CRISPR TECHNOLOGIES TO IDENTIFY AND DEVELOP HYPOXIA TOLERANT RAINBOW TROUT *Oncorhynchus mykiss*
- 2:30 Michael Phelps**
PAST SUCCESS AND FUTURE ROADMAP FOR GENOME EDITING IMPROVEMENTS IN AQUACULTURE

2ND BIENNIAL U.S. AQUACULTURE RESEARCH AND EXTENSION PROGRAM UPDATES

Monday, March 10 8:30 AM - 4:30 PM Balcony K
Chairs: Michael Schwarz, Charles (Chuck) Weirich

- 8:30 Chuck Weirich**, Mark Rath, Nikola Garber
NOAA SEA GRANT'S CURRENT AQUACULTURE INVESTMENT PORTFOLIO
- 8:45 Michael Schwarz**, Jonathan van Senten, Yiming Feng, Katheryn Parraga-Estrada, Mohammad Zarei, Fernando Goncalves, Wendy Stout, Taozhu Sun, Stephen Urick, Ethan McAlhaney, Keri Rouse, Tiffany Wood, Noah Boldt, Charles Clark, Jireh Clarington
VIRGINIA SEAFOOD AGRICULTURAL RESEARCH AND EXTENSION CENTER – PROGRAMMATIC OVERVIEW
- 9:00 Christopher Good**
THE CONSERVATION FUND FRESHWATER INSTITUTE: RECIRCULATING AQUACULTURE RESEARCH PROGRAM UPDATES
- 9:15 Don Schreiner**, Amy J. Schrank
INCREASING GOLDEN SHINER *Notemigonus crysoleucas* PRODUCTION FOR BAIT IN MINNESOTA

- 9:30 Angee Doerr**
AQUACULTURE EXTENSION AT OREGON SEA GRANT: BUILDING CAPACITY,
BUILDING CONNECTIONS
- 9:45 Barry Udelson**
DEVELOPING A UNIFIED AQUACULTURE INDUSTRY IN NEW YORK
- 10:00 BREAK**
- 10:30 Joshua Reitsma**, Abigail Archer, Rachel Hutchinson
AQUACULTURE EXTENSION PROGRAMMING IN SOUTHEASTERN
MASSACHUSETTS JOINTLY ADMINISTARTED BY BARNSTABLE COUNTY
AND WOODS HOLE OCEANOGRAPHIC INSTITUTION SEA GRANT
- 10:45 Danny Badger**, Michael Triantafyllou, Themistoklis Sapsis, Robert Vincent,
Mary Newton Lima, Carolina Bastidas, Andrew Bennett, Ben Bray, Lily Keyes,
Juliet Simpson
OYSTER-FLIPPING ROBOTS TO EXPANDING WORKFORCE ACCESSIBILITY
– AN UPDATE ON THE MIT SEA GRANT AQUACULTURE PROGRAM
- 11:00 Mario Marquez**
EVERYTHING'S BIGGER IN TEXAS – 60-ACRE OYSTER PARK
- 11:15 Elliot Nelson**, Lauren Jescovitch
ENHANCE YOUR AQUACULTURE EDUCATION, EXTENSION, BUSINESS AND
MORE THROUGH BACKWARDS DESIGN
- 11:30 Dennis McIntosh**, Grant Blank
AQUACULTURE TECHNICAL ASSISTANCE AND OUTREACH AT DELAWARE
STATE UNIVERSITY: PAST, PRESENT AND FUTURE
- 11:45 Jonathan van Senten**, Charles Clark, Fernando Goncalves, Renu Ojha,
Isaac Wu, Michael Schwarz
SEAFOOD ECONOMIC ANALYSIS AND MARKETING RESEARCH
PROGRAM: APPLIED RESEARCH AND EXTENSION IN SUPPORT OF U.S.
AQUACULTURE
- 12:00 LUNCH**
- 1:00 Mark Drawbridge**
AQUACULTURE RESEARCH UPDATE FOR HUBBS-SEAWORLD RESEARCH
INSTITUTE
- 1:15 Ken Semmens**, Andrew Ray, Robert Durborow, Waldemar Rossi, Noel Novelo,
Janelle Hager
THE KENTUCKY STATE UNIVERSITY AQUACULTURE PROGRAM

- 1:30 Brennan Smith**, Rebecca Dupre, Ryan Ardoin
ADVANCEMENTS IN AQUACULTURE: INNOVATIONS BY THE FOOD PROCESSING AND SENSORY QUALITY RESEARCH UNIT
- 1:45 Matthew A. DiMaggio**
RESEARCH AND EXTENSION PROGRAMMING UPDATE: THE UNIVERSITY OF FLORIDA TROPICAL AQUACULTURE LABORATORY
- 2:00 Amy Shambach**, Stuart Carlton, Kwamena Quagraine
K-12 PROGRAMMING AS A FIRST STEP TOWARD WORKFORCE GROWTH
- 2:15 William Walton**, Madeline Pitsenbarger, Jessica Small, Ryan Carnegie, Karen Hudson
SHELLFISH AQUACULTURE RESEARCH AT THE VIRGINIA INSTITUTE OF MARINE SCIENCE

POLICY AND REGULATIONS

Monday, March 10 10:30 AM - 2:30 PM Galerie 6
Chair: Sandy Zeiner

MONDAY

- 10:30 Megan Rector**, Lynne Falconer
DEVELOPING A FRAMEWORK FOR THE ASSESSMENT OF ADAPTIVE CAPACITY IN SALMON FARMING
- 10:45 Kaitlyn St. Charles**, Rosemary Marusak, Myron Kebus, Carol Cardona, Marie Culhane, Catherine Alexander
GREAT LAKE STATE REQUIREMENTS FOR LIVE FISH MOVEMENTS AND VIRAL HEMORRHAGIC SEPTICEMIA MANAGEMENT: CHARACTERIZING DIFFERENCES AMONG STATE REGULATIONS
- 11:00 Stephen Reichley**, Mark Lawrence, Gina Rico Mendez, Masey Smith, Kelly Stewart, Laura Zseleczy
FEED THE FUTURE INNOVATION LAB FOR FISH: INNOVATION AND TECHNOLOGY FOR SUSTAINABLE AQUATIC FOOD SYSTEMS
- 11:15 Kaitlyn St. Charles**, Rosemary Marusak, Myron Kebus, Carol Cardona, Marie Culhane, Catherine Alexander
TRANSLATING RESULTS FROM A VIRAL HEMORRHAGIC SEPTICEMIA RISK ASSESSMENT INTO RISK-BASED TOOLS FOR COMMERCIAL AQUACULTURE PRODUCERS IN THE GREAT LAKES REGION
- 11:30 William Bray**, Carolina Bastidas
CLOUD-BASED DATA APPLICATIONS FOR STREAMLINING NATURAL RESOURCE MANAGEMENT

11:45 Hayley Kaplan, Louisa Pitney, Grant Murray, Lisa Campbell, Elizabeth Albright, Norbert Wilson
ASSESSING EQUITY IN THE EMERGING SHELLFISH AQUACULTURE INDUSTRY

12:00 LUNCH

1:00 Hannah Wilson, Alicia Bishop, James Currie, Jordan Hollarsmith, Rebecca Cates, Henry Fleener, Alix Laferriere, Angela Korabik
NOAA FISHERIES ALASKA FY24 AQUACULTURE ACCOMPLISHMENTS

1:15 Tori Spence, Kristina Dauterman, Lesely Hawn, Angela Amlin, Stacie Robinson, Michelle Barbieri, Tracy Mercer, Haley Durbin, Tyler Korte, Steve Barnes, Mackenzie Files
UNDERSTANDING INTERACTIONS WITH ENDANGERED MARINE MAMMALS AND TROPICAL AQUACULTURE

1:30 Robert Smith, Tim Hobbs
THE DEMISE OF THE CHEVRON DOCTRINE AND THE LEGAL IMPLICATIONS FOR THE AQUACULTURE INDUSTRY

1:45 Nike Aladetohun, Sheu Odu-Onikosi
CONTROL MEASURES FOR BIOSECURITY COMPLIANCE IN FISH FARMS ACROSS SELECTED LOCAL GOVERNMENT AREAS OF LAGOS STATE

ANIMAL WELFARE

Monday, March 10 1:00 PM - 2:30 PM Salon C

Chair: Jackson Gross

- 1:45 Jonathan Roques**, Sofia Kamperin, Eric Metsmaa, Lizeth Alcocer, M. Iranzu Calocany Aramendia, Erika Sundell, Ida Hedén, Niklas Warwas, Joana Henze
VALIDATION OF THE HEMOCUE HB 801 PORTABLE HEMOGLOBIN ANALYZER FOR FISH BLOOD
- 1:00 Ana Viskovic**, Alistair Lane, Benjamin Costas, Tania Pereira, Sergio Fernández-Boo, Marina Machado, Rita Azeredo, Lourenco Ramos-Pinto, Roy Dalmo, Tore Seternes, Mette Thomsen, Tanmay Chaturvedi, Massimo Milan, Luca Peruzza, Luca Bargelloni, Ana do Vale, Juan Antonio Martos-Sitcha, Kiron Viswanath, Sofia Teixeira, Rui Rocha, Luís Conceição, Ana Gonçalves, Henrik Tribler, Marques Joana, Miguel Leal, Giulia Micallef, Tim Bean, Diego Robledo, Carlos Leaniz, Adrian Hodgkinson
IGNITION: IMPROVING GREEN INNOVATION FOR THE BLUE REVOLUTION – NEWS TOOLS AND OPPORTUNITIES FOR A MORE SUSTAINABLE ANIMAL FARMING
- 1:15 Jackson Gross**, Jennifer Bowman, Xiang Yang
ADVANCING HUMANE SLAUGHTER METHODS FOR WHITE STURGEON *Acipenser transmontanus*: EFFICACY OF NON-PENETRATIVE CAPTIVE BOLT STUNNING
- 1:30 Jennifer Bowman**, Mikaila Hishaw, Jackson Gross
ELECTRO EUTHANASIA AS A HUMANE ALTERNATIVE TO TRADITIONAL METHODS FOR EUTHANASIA OF ZEBRAFISH *Danio rerio*

MONDAY

BIVALVE HATCHERY HEALTH CONSORTIUM

Monday, March 10 1:00 PM - 4:30 PM Balcony J

Chairs: Marta Gomez-Chiarri, Robbie Hudson

- 1:00 Rob Hudson**, Dave Bushek, Matthew J. Bertin, Jacob Cram, Matthew W. Gray, Steve Zimmerman, Joshua Reitsma, Gary Wikfors, Katherine McFarland, Zach Gordon, Marta Gomez-Chiarri
BIVALVE HATCHERY HEALTH CONSORTIUM