



TUESDAY, February 17

PLEASE NOTE: PRESENTATION TIMES

AA2026 presentations for each session are listed in the order of presentation when the Directory goes to press. The presentation times have been omitted because there are many late changes after the Directory is printed. The AA2026 Conference APP will show the presentation times and will be updated during the conference as changes are received. Late cancellations will be marked "Cancelled" in the APP. The AA2026 APP will have the most current version of the Directory and will better assist attendees in planning their schedules.

Tuesday Break 10:00 – 11:00

Tuesday Lunch 12:30 – 1:30

PLENARY SESSION

Tuesday, February 17 8:30 AM - 10:00 AM Concorde B
Chairs: Aaron Watson, Jackson Gross

WELCOME

STUDENT SPOTLIGHT

Olivia Markham, Li Sun Chin, Savannah B. Saeger

All In on Aquaculture: Entrepreneurs Building the Future of U.S. Seafood

Plenary talk by **Dr. Carrie Byron**, followed by a panel discussion with Jackson Limke, Ali Bolourchi, and Jody Houk

The next generation of aquaculture leaders is forging a path where innovation, collaboration, and sustainability intersect. To build a thriving future for aquaculture in the United States, we need more than great ideas. We need strong partnerships that bridge science, industry, and community. This plenary session features entrepreneurs who are going All In on Aquaculture and are doing the hard work of translating vision into impact.

Dr. Carrie Byron, Professor of Marine Sciences at the University of New England, opens the session with a keynote address highlighting SeaMade, a student-run business that has emerged as a national model for how academic institutions can support the future of aquaculture. SeaMade is more than a kelp-based nutrition bar. It is a living incubator that brings together students, researchers, faculty, and industry mentors to solve real challenges in seaweed aquaculture.

From kelp farming and harvesting to recipe innovation, nutritional analysis, market testing, packaging, and distribution, the SeaMade program gives students direct experience in building a sustainable seafood business from the ocean to the marketplace. The project unites disciplines like marine science, business, nutrition, and sustainability, while fostering critical partnerships with extension specialists, industry collaborators, and research institutions. Under Dr. Byron's leadership, SeaMade is helping UNE cultivate a new generation of blue economy professionals who are not just job-ready, but equipped to lead.

Following her talk, Dr. Byron will be joined by three dynamic aquaculture entrepreneurs for a panel discussion that explores what it takes to start and scale a seafood business in today's economic and regulatory climate:

- **Jackson Kimple** (*Midland Co., Iowa*) is developing one of the only indoor shrimp production operations in the Midwest. He is helping to redefine what inland aquaculture can look like in the United States.
- **Ali Bolourchi** (*Tsar Nicoulai, California*) is innovating at the intersection of tradition and sustainability through his work with sturgeon caviar and meat production. His approach prioritizes quality, resource efficiency, and product diversification.
- **Jody Houck** (*East Bay Oysters, Florida*) is building a premium oyster farm in the Florida Panhandle. She is focused on ecological restoration, local food systems, and raising awareness about shellfish aquaculture in the Southeast.

Together, the panel will explore how integrating research, extension, community engagement, government resources, and industry networks can shape the success of new aquaculture ventures. This conversation is designed to inspire dialogue, build momentum, and showcase the next generation of leaders who are all in on building a more resilient, inclusive, and innovative U.S. seafood system.

USAS STUDENT SUB-UNIT SHOWCASE: REGIONAL AQUACULTURE CENTER DISCUSSION – EXTENSION AND COLLABORATION ACROSS THE COUNTRY

Tuesday, February 17 11:00 AM - 12:30 PM Concorde C
Chair: Mikaila Hishaw

Julianne Grenn, Abdulmalik Oladipupo
USAS STUDENT SUBUNIT SHOWCASE

Marie Tan, Dylan Martin, Brittany Martin, Leah Steward, David Cline
STUDENT-LED AQUACULTURE OUTREACH AT AUBURN UNIVERSITY

Virginia Moore, Anissa Overly, Barbara Evans
USAS SUBUNIT EDUCATIONAL OUTREACH AT LAKE SUPERIOR STATE
UNIVERSITY

John Stanfill, Kelsey McKenna, Matthew LaGanke, Taylor Dolan Nichols
THE AQUACULTURE COLLECTIVE: VIMS USAS STUDENT SUBUNIT

Emmanuel Annang, Ifeoluwa Durowaiye, Sandhya Lamichhane, Toheeb Falakin,
Brandon Wright, Sophia Okoh, Naomi Agboli, Elizabeth Oduntan, Noel Novelo
EDUCATION, COMMUNITY, PROFESSIONAL DEVELOPMENT, AND PARTERSHIPS
TO CREATE EXTENSION RESOURCES (2024-2025)

TUESDAY

SHRIMP PRODUCTION

Tuesday, February 17 11:00 AM - 12:30 PM Concorde B
Chairs: Allen Davis, Melanie Rhodes

Artur Rombenso, Mauricio G.C. Emerenciano, Ha Truong, Stuart Arnold, Cedric Simon
NUTRITION AND PRODUCTION SYSTEM INTEGRATION TO ADVANCE INTENSIVE
SHRIMP FARMING

Khanh Nguyen, Melanie Rhodes, Timothy Bruce, Julio Garcia, Luke Roy, D. Allen Davis
TEMPORAL MICROBIOME DYNAMIC WITHIN PACIFIC WHITE SHRIMP *Litopenaeus vannamei* PRODUCTION PONDS

Brandon Wright, Andrew Ray
EFFECTS OF STOCKING DENSITY ON PACIFIC WHITE SHRIMP *Litopenaeus vannamei* PRODUCTION IN CLEARWATER, INTENSIVE RAS

Jairo A. Gonzalez, Arnold J. Gutierrez, Babatunde Saliu, Fabio Ulisses Ramos,
Melanie A. Rhodes, Julio C. García, Luke A. Roy, D. Allen Davis
FEED MANAGEMENT DURING THE FIRST 30 DAYS OF POND PRODUCTION: ITS INFLUENCE ON EARLY GROWTH AND FINAL SHRIMP PRODUCTION

Marie Gisele Ishimwe, Sagun Chhetri, Andrew J. Ray
EVALUATION OF THE COMBINED EFFECTS OF AMMONIA AND NITRITE ON THE SURVIVAL AND GROWTH OF *Litopenaeus vannamei* PACIFIC WHITE SHRIMP

Arnold J. Gutierrez, Jairo A. Gonzalez, Babatunde Saliu, Melanie A. Rhodes,
D. Allen Davis
EFFECT OF DIFFERENT FEEDING PROTOCOLS ON GROWTH PERFORMANCE AT EARLY AND LATE GROWTH STAGES OF PACIFIC WHITE SHRIMP

MARINE-SALMONIDS

Tuesday, February 17 11:00 AM - 3:30 PM Chablis
Chair: Matt Hawkyard

Sandipan Mondal, Ming-An Lee

NORTHWESTERN PACIFIC SEA BREAM FISHERIES UNDER CLIMATIC AND MONSOONAL OCEANOGRAPHIC VARIABILITY: DOMINANCE OF LONG-TERM CLIMATIC VARIABILITIES OVER SHORT-TERM EXTREMES

Robert Morefield, Heather Hamlin

SEX-SPECIFIC SURFACE MOLECULES IN SALMON LICE *Lepeophtheirus salmonis* IDENTIFIED ON ANATOMICAL SITES IMPORTANT FOR REPRODUCTION

Zachary Szepiela, Kevin Neves, Jeffery Miner

EFFECTS OF DIET ON VATERITIC OTOLITH GROWTH IN STEELHEAD TROUT *Oncorhynchus mykiss* IN FISH HATCHERIES

Kenneth Cain, Adam Luckenbach

ADDRESSING RESEARCH NEEDS AND ESTABLISHING KEY INDUSTRY PARTNERSHIPS TO ADVANCE COMMERCIAL SABLEFISH *Anoplopoma fimbria* AQUACULTURE

Halli Bair, Sydney Ulland, Robert Morefield, Heather Hamlin

LIPID AND FATTY ACID COMPOSITION OF ATLANTIC SALMON *Salmo salar* EGGS IN RELATION TO EARLY PERFORMANCE

Tatum Redmon, Sherri Russell, Dallas Flickenger, Moureen Matuha

EVALUATING THIAMINE SUPPLEMENTATION STRATEGIES IN HATCHERY-REARED RAINBOW TROUT *Oncorhynchus mykiss* IN MISSOURI

Jonathan van Senten, Carole Engle, Domena Agyeman, Michael H. Schwarz

COST DRIVERS OF COMMERCIAL-SCALE MARINE FINFISH HATCHERY PRODUCTION IN SOUTHERN TIER U.S. STATES

MOLLUSKS

Tuesday, February 17 11:00 AM - 12:30 PM Bordeaux
Chair: TBA

Hugh Cowperthwaite

TECHNOLOGY TRANSFER VISIT TO AOMORI AND HOKKAIDO, JAPAN IN SUPPORT OF MAINE'S GROWING FARMED SEA SCALLOP INDUSTRY

Nathaniel Baker, Toby Dewhurst, Damian Brady, Struan Coleman, Andrew Peters
ENGINEERING DESIGN OF SCALLOP AQUACULTURE FARMING SYSTEMS

Zhilong Liu, Arash Pashazadeh, Haifei Chen, Shenghua Wu, Brian Dzwonkowski
INFRASTRUCTURE INTEGRITY ASSESSMENT OF FLOATING CAGE OYSTER FARMS IN NORTHERN GULF OF MEXICO

Allen Pattillo, Miao Yu, Matt Parker, Don Webster, Cathy Liu, Willie Lantz, Yang Tao, Yiannis Aloimonos, Nikhil Chopra, Matt Gray, Megan Gima, Bobbi Hudson, Jonathan van Senten
5-YEAR UPDATE FROM THE SMART, SUSTAINABLE SHELLFISH AQUACULTURE MANAGEMENT PROGRAM

SEAFOOD

Tuesday, February 17 11:00 AM - 12:30 PM Versaille 2
Chair: Moureen Matuha

Salina Parveen, Mary Snow, Esam Almuhaideb, Andy DePaola, John Bowers, Bernadette Ezeabikwa, Gulnihal Ozbay, Fawzy Hashem, Don Webster
THE EFFECTS OF AQUACULTURE PRACTICES AND WEATHER EVENTS ON POPULATION DYNAMICS OF VIBRIOS IN OYSTERS AND SEAWATER

Alexandra Tamburino

INTERPRETATION OF EMERGENCY SHELLFISH HARVEST CLOSURES UNDER THE NATIONAL SHELLFISH SANITATION PROGRAM'S MODEL ORDINANCE

Luxin Wang, Anita Kelly, Luke Roy, Xiran Li, Hongye Wang, Hisham Abdelrahman
THE IMPACT OF WATER TEMPERATURES AND ANTIBIOTIC TREATMENTS ON THE ANTIMICROBIAL RESISTANCE IN CATFISH

Barbara Evans, Jun Li, Anissa Overly, Brenden Conger, Hannah Callaway, Derek Wright
ANALYSIS OF ATLANTIC SALMON TISSUES EXPOSED TO HEAVY METAL

Moureen Matuha, Jacob Loesch, Andrew Coursey
UNDERSTANDING CONSUMER PERCEPTION AND PREFERENCES OF THE AQUACULTURE INDUSTRY IN MISSOURI

NAVIGATING PROMOTION AND TENURE WITH AN EXTENSION APPOINTMENT

Tuesday, February 17 11:00 AM - 12:30 PM Champagne 2
Chairs: Bill Walton, Jonathon Van Senten, Luke Roy

William Walton, Ryan Carnegie, Luke Roy, Jonathan Van Senten

NAVIGATING PROMOTION AND TENURE WITH AN EXTENSION APPOINTMENT

LARVAL CULTURE

Tuesday, February 17 11:00 AM - 3:30 PM Champagne 3
Chair: Jason Broach

Anneleen Swanepoel, Nelson S. Parajuli, Anita M. Kelly, Luke A. Roy, D. Allen Davis, Timothy J. Bruce, Ian A.E. Butts

DEVELOPMENT OF EARLY WEANING STRATEGIES FOR LARGEMOUTH BASS
Micropterus nigricans DURING EARLY ONTOGENY

Md Zakir Hossain, Sheryl Barringer

ENHANCING REARING OF YELLOW PERCH LARVAE THROUGH A NOVEL LOW-COST FILTER AND SPRAYER RECIRCULATION SYSTEM

Mariana Michelato, Kevin Stuart, Alexander Primus, Michael Shane, Mark Drawbridge
EFFECTS OF ROTIFERS, FEED ENRICHMENTS, AND FEEDING SCHEDULES ON THE OCCURRENCE OF SKELETAL DEFORMITIES IN WHITE SEABASS *Atractoscion nobilis*

Jason Broach, Justin Yost, Haley Lasco, Collin Ward, Thomas McBride, Evan Bowman, Lora Payne, Erin Levesque, River Bryant, Aaron Watson

EVALUATION OF STOCKING DENSITY AND FEED REGIMES DURING EARLY LARVAL CULTURE OF SOUTHERN FLOUNDER *Paralichthys lethostigma*

Alexandra Bohardt, Mersades Hineman, Ty Jobson, Nichole Gatten

ADVANCES IN AQUARIUM AQUACULTURE THROUGH CAPACITY BUILDING GRANT SUPPORT

Ram Babu Kurapati, Grace Ramena, Tomekia White, Adam Fuller, Kailash Bohara, Thomas Bosteels, Yathish Ramena

OPTIMIZING ARTEMIA FEEDING STRATEGIES FOR WHITE SHRIMP *Litopenaeus vannamei* LARVAE: MICROBIOME, IMMUNITY, AND GROWTH

Dariano Krummenauer, Natalie Reali, Wilson Wasielesky Jr.,

Martin Frederico Desimone, Egidia Andrade, Rodrigo Gomes, José María Monserrat
EFFECT OF ASTAXANTHIN NANOCAPSULES ON THE GROWTH OF THE PACIFIC WHITE SHRIMP *Penaeus vannamei*

Abigail B. Quevedo-Cesar, Lucia Suárez-López, Laura A. Álvarez-Lee,

Carmen G. Paniagua-Chávez

*IN VITRO CULTURE OF GERM CELLS FROM STRIPED BASS *Morone saxatilis**

Kamrun Naher Azad, Md. Nur-E-Alam, Makoto Nagata, Satoshi Tomano, Horoki Ono, Kyoko Sugai, Noritaka Hirohashi

CONDITIONAL USE OF MULTIPLE SPERM INSEMINATION SITES IN A FEMALE SQUID

Samuel Garcia-Vazquez, David Straus, Bonnie Brown, Dayan A. Perera

THE DEVELOPMENT OF TRIPLOIDY INDUCTION METHODS FOR HYBRID STRIPED BASS PRODUCTION IN COMMERCIAL AQUACULTURE

Erimi Kendrick, Nadya Mamoozadeh, Greg Cope, Russell Borski, Bobby Clark, Michael Hopper, Benjamin Reading

EVALUATION OF PONDSIDE TANK REARING SYSTEMS FOR JUVENILE STRIPED BASS PRODUCTION

Olivia Markham, Casey A. Murray, Amy L. Wood, Brittney D. Lacy, Charles F. Heyder, Matthew A. DiMaggio

LARVAL SPECTRAL SENSITIVITY OF *Puntius tetrazona* PHOTORECEPTORS AND ALTERATION OF LIGHTING PROTOCOLS

AQUAPONICS 101

Tuesday, February 17 11:00 AM - 12:30 PM Versaille 3

Chair: Huy Tran

Aquaponics 101

Huy Tran, Senior Biologist, Aquatic Equipment & Design, Inc.

A SHORT COURSE AND INTRODUCTION TO AQUAPONICS AND AQUAPONICS SYSTEMS

AQUACULTURE INVESTMENT AND FINANCE: OPPORTUNITIES ACROSS THE SECTOR

Tuesday, February 17 11:00 AM - 12:30 PM Champagne 1
Chair: Dylan Howell

Funding, Founders and Investments

A practical, founder-focused and funding session exploring how aquaculture ideas become fundable businesses. Through firsthand perspectives from entrepreneurs, investors, and public funding leaders, this session unpacks capital readiness, early execution, and the real decisions behind launching, financing, and building a successful aquaculture startup.

Dylan Howell, Investment & Innovation Catalyst, Hawaii, USA

FROM SCIENCE TO STARTUP: HOW RESEARCHERS COMMERCIALIZE THEIR RESEARCH AND HOW INVESTORS EVALUATE AQUACULTURE INNOVATION

Ashley Roulston, Co-Founder, Industrial Plankton, Victoria, BC, Canada

BUILDING AN AQUACULTURE STARTUP FROM THE GROUND UP: LESSONS FROM THE FIELD

Kristin Elliott, Chief Executive Officer, Aquasend, San Diego, California, USA

FROM PAIN POINT TO PLATFORM: COMMERCIALIZING INNOVATION IN AQUACULTURE LOGISTICS

Danielle Blacklock, Director, Office of Aquaculture, NOAA Fisheries, USA

U.S. PUBLIC INVESTMENT AND FUNDING FOR AQUACULTURE INNOVATION: LANDSCAPE AND STATUS

Jeff Hetrick, Board Member, National Aquaculture Association, USA

OBSERVATIONS ON INVESTING IN AQUACULTURE AND THE STOCK MARKET

PANEL DISCUSSION AND Q&A:

Panelists: Danielle Blacklock, Ashley Roulston, Kristin Elliott, Jeff Hetrick

WHAT IT REALLY TAKES TO TURN AQUACULTURE INNOVATION INTO SUCCESSFUL BUSINESSES

A candid discussion on what it truly takes to fund, launch, and scale aquaculture ventures
- covering grants, investment, founder readiness, and early execution.

STRIPER HUB

Tuesday, February 17 11:00 AM - 12:30 PM Loire
Chair: TBA

See Conference APP for details

FEDERAL TOWN HALL

Tuesday, February 17 1:30 PM - 5:30 PM Concorde A

Chair: Sebastian Belle

Join us in hearing updates directly from our Federal partners at NOAA, USDA and USFWS

Danielle Blacklock, Director, Office of Aquaculture, NOAA

Updates from NOAA – Office of Aquaculture, National Sea Grant College Program & National Centers for Coastal Ocean Science

TUESDAY

Caird Rexroad, Acting Deputy Administrator for Animal Production and Protection,

USDA Agricultural Research

Updates from USDA-ARS Service (ARS)

Seth Cross, National Program Manager, USDA, Farm Service Agency (FSA)

Updates from USDA-FSA & ELAP

Martha Balis-Larsen, Acting Assistant Director, Fish and Aquatic Conservation, USFWS

Updates from USFWS

AQUACULTURE 101

Tuesday, February 17 1:30 PM - 5:30 PM Bordeaux

Chairs: Maria Smithson, Caitlyn Czajkowski

Information essential to potential or new aquatic animal farmers: Where can sound information be found, developing a farm development plan, the laws and regulations governing fish farming, importance of whole farm animal health management, who is advocating on my behalf.

Herbert Quintero Fonseca, Program Director Aquaculture Extension, The Ohio State University

UNLOCKING INFORMATION SOURCES ON AQUACULTURE

Christian Brayden, Project Manager, Maine Aquaculture Association

HOW TO RETAIN EMPLOYEES IN AQUACULTURE

Shraddha Hegde, Assistant Professor and ACES Faculty Fellow, Texas A&M

FARM BUSINESS PLANNING

Renu Ojha, Assistant Director, Virginia Polytechnic Institute and State University

REGULATORY COMPLEXITY AND COSTS

Kathleen Hartman, Kennebec River Biosciences

REFLECTIONS ON HOW TO MOVE THE NEEDLE FOR AQUATIC LIVESTOCK
HEALTH IN THE U.S.

Bob Robinson, Emeritus Status Kasco Marine
40 YEARS OF MY AQUACULTURE EXPERIENCE IN 15 MINUTES OR LESS

Caitlyn Czajkowski, Executive Director, National Aquaculture Association
IMPORTANCE OF STATE, REGIONAL AND NATIONAL REPRESENTATION

AQUATIC ANIMAL HEALTH WORKSHOP

Tuesday, February 17 1:30 PM - 5:30 PM Versaille 3
Chair: Timothy Bruce

See Conference APP for details

SOCIAL DIMENSIONS OF AQUACULTURE

Tuesday, February 17 1:30 PM - 3:30 PM Champagne 2
Chairs: Adriane Michaelis, Emily Whitmore

Adriane Michaelis, Hayley Lemoine
SOCIAL ACCEPTABILITY FOR AQUACULTURE: A MIXED METHODS APPROACH TO
UNDERSTAND ACCEPTABILITY IN THREE REGIONS OF THE UNITED STATES

Amalia Almada, Heather Fenney, Melo Lemus, Maira Quintanilla, Diane Kim,
Anna Joo Kim, Nathan Churches
UPDATE ON THE SOUTH-CENTRAL LOS ANGELES SEAFOOD HUB

Caela B. Gilsinan, Adriane K. Michaelis, Andrew M. Scheld
ADDRESSING LABOR DEMAND AND PRODUCTION EFFICIENCY IN SHELLFISH
AQUACULTURE

Imani Black
CULTIVATING THE NEXT GENERATION: BUILDING A MULTIDISCIPLINARY
WORKFORCE PIPELINE FOR U.S. AQUACULTURE AND FISHERIES

Hayley Lemoine, Adriane K. Michaelis, Sarah E. Lester
FISHING TO FARMING LIVELIHOOD DIVERSIFICATION: PERCEPTIONS FROM
COMMERCIAL FISHERS AND SHELLFISH FARMERS IN THE U.S.

Festus I. Adeosun, T. Isaac Omoniyi, Olamide M. Adeosun
ASSESSMENT OF HOUSEHOLD LIVELIHOOD DIVERSIFICATION AND FISHERIES
CONSERVATION STRATEGIES AMONG FISHERMEN IN COASTAL AREAS OF OGUN
STATE, NIGERIA

Ifeoluwa Durowaiye, Jeffrey L. Warner, Ayomide Taiwo, Jeremy Rome, Noel D. Novelo
NIGERIAN TILAPIA GRAVY: A MULTICULTURAL DISH FOR PROMOTING HEALTHY
EATING AND NUTRITION AWARENESS IN THE USA

BUILDING PATHWAYS FOR WOMEN'S LEADERSHIP IN AQUACULTURE

Tuesday, February 17 1:30 PM - 5:30 PM Loire
Chairs: Angela Caporelli, Anoushka Pawar, Gabriela Bradt

Part I: Elevating leadership for early-career women: Wendy Sealy, Foluke Areola (giving welcome from WAS president perspective). The following will present/talk about Early Career experiences: Caitlin Czajkowski, Dennis McIntosh, Michael Phelps, Taja Sims-Harper, Julie Grend, Rafael Cuevas Uribe, and Alicia Gaiero.

Anoushka Concepcion, Gabriela Bradt, Angela Caporelli
RISING TOGETHER: BUILDING PATHWAYS FOR WOMEN'S LEADERSHIP IN AQUACULTURE

Part II: Elevating leadership for mid-career women: Danielle Florenzen, Katie Harris, Amy Stone, Matt Parker, Bob Robinson, and Imani Black

Imani Black

BRIDGING THE BLUE DIVIDE: MENTORSHIP, REPRESENTATION, AND THE NEXT GENERATION OF AQUACULTURE LEADERS

Part III: General questions and group discussion. Town hall style and open forum

HIGHLIGHTING AQUACULTURE IN THE FLORIDA KEYS: INNOVATION IN CONSERVATION AND RESTORATION

Tuesday, February 17 1:30 PM - 5:30 PM Champagne 1
Chair: Caeley Flowers

Charles Gregory

ADVANCEMENTS IN CORAL REPRODUCTION AND AMPLIFICATION FOR REEF RESTORATION AQUACULTURE IN FLORIDA

Travis Knorr, Dee Dee Smause, Donna Vaughan, Jason Smause, Jackson Woods, Patrick Poulin, David Vaughan

LAND-BASED CORAL RESTORATION IN THE FLORIDA KEYS: A COMMUNITY ASSET FOR CORAL RESTORATION, EDUCATION, AND OFF-GRID AQUACULTURE FACILITY DEMONSTRATION

Tiffany Clavijo

THE RIPPLE EFFECT: CONNECTING AQUACULTURE EDUCATION AND COMMUNITY OUTREACH IN THE FLORIDA KEYS

Kaitlyn Stumbar, Patrick Rice

ESTABLISHMENT AND GROWTH OF *Asparagopsis taxiformis* IN CLOSED-RECIRCULATING SYSTEMS AT THE COLLEGE OF THE FLORIDA KEYS

TUESDAY

Kristofer Wantzloeben, Charles Gregory, Patrick Rice

NUTRIENT MANAGEMENT AND PERIPHYTIC ORGANISM "HITCHHIKER" CONTROL:
USING *Chaetomorpha brachygona* IN A MARINE RECIRCULATING AQUACULTURE
SYSTEM HOUSING *Mycterohera bonaci*

Patrick H. Rice

NEPTUNE RISING: A "MOONSHOT" ECOFRIENDLY CONCEPT FOR OFFSHORE
MARINE AQUACULTURE POWERED BY MARINE RENEWABLE ENERGY

Caeley Flowers, Tiffany Clavijo

HIGHLIGHTING AQUACULTURE IN THE FLORIDA KEYS: INNOVATION IN
CONSERVATION AND RESTORATION

ECHINODERMS

Tuesday, February 17 1:30 PM - 3:30 PM Burgundy

Chairs: Luke Gardner, Abigail Bockus

Abigail Bockus, T. Gibson Gaylord, Daniel Sambold, Devin Fitzgerald,
Jonathan Rabinovich, Luke Gardner

EXAMINING THE EFFECTS OF FEED PROCESSING ON UNI GROWTH AND
QUALITY IN PURPLE URCHIN *Strongylocentrotus purpuratus*

Daniel Sambold, Ava Mueller, Vaughn White, Devin Fitzgerald, Abigail Bockus,
Gibson Gaylord, Daniel Swezey, Ford Evans, Jackson Gross, Xiang Yang,
Logan Rosenberg, Luke Gardner

EXAMINING FINISHING FEED APPLICATIONS FOR PURPLE URCHIN
Strongylocentrotus purpuratus ROE ENHANCEMENT

Maya Munstermann, Nina Hapner, Dan Swezey, Dan Okamoto, Crystal Yang,
Devin Fitzgerald, Steve Cunningham, Abigail Bockus, Gibson Gaylord, Luke Gardner
PHOTOPERIOD AND TEMPERATURE REGULATION OF GAMETOGENESIS AND
REPRODUCTIVE CAPACITY IN THE PURPLE SEA URCHIN *Strongylocentrotus*
purpuratus

Casey Hudspeth, Joshua T. Patterson, Aaron R. Pilnick
UNRAVELING MYSTERIES IN THE AQUACULTURE OF NEWLY SETTLED JUVENILE
Diadema antillarum AND *Lytechinus variegatus* SEA URCHINS

Coleen Suckling, Brendan Elba, Christopher Jenkins
HARNESSING SEA URCHINS IN CO-CULTURE TO MITIGATE BIOFOULING IN
SHELLFISH AQUACULTURE: PROGRESS AND NEXT STEPS

Ford Evans, Chris Langdon, Tom Calvanese, Jeff Griffin, Brad Bailey, Aaron Huang
AN UPDATE ON THE STATUS OF SEA URCHIN CULTURE IN OREGON

Steve Eddy

SEA URCHIN FISHERY AND AQUACULTURE IN MAINE: HISTORICAL PERSPECTIVE AND CURRENT STATUS

Hugh Cowperthwaite

TECHNOLOGY TRANSFER VISIT TO HOKKAIDO, JAPAN IN SUPPORT OF MAINE'S GROWING FARMED SEA URCHIN INDUSTRY

FEED ADDITIVES / SUPPLEMENTS

Tuesday, February 17 1:30 PM - 5:30 PM Concorde C

Chairs: Fernando Yamamoto, Vitor F. Silva

Kyle Brennan, Timothy Bowden, Jennifer Perry, Brian Beal

THE USE OF PROBIOTICS TO MITIGATE ATLANTIC SEA SCALLOP *Placopecten magellanicus* MORTALITY FOLLOWING CHALLENGE WITH PATHOGENIC *Vibrio* SPECIES

Abigail Qi, Manzar Abbas

EXPLORING NOVEL CONTROLS FOR ANTIBIOTIC-RESISTANT *Vibrio* spp. IN OYSTER HATCHERIES

Artur Rombenso, Paula C. Lima, Mauricio G.C. Emerenciano, Felipe B. Vieira, Ha Truong, Cedric Simon

BIOCHAR AS A VALUE-ADDING INNOVATION IN AQUACULTURE NUTRITION

Jason Pough, Ann Stevens, David Kuhn

NOVEL APPLICATION OF BREWER'S SPENT BYPRODUCT SERVE AS AN EFFECTIVE FEED ADDITIVE TO RAINBOW TROUT *Oncorhynchus mykiss*

Vitor Silva, Samah Algharib, Treva Billyard, Lora Petrie-Hanson

DIETARY BETA-GLUCAN ENHANCES METABOLIC ACTIVITY IN CATFISH IMMUNE CELLS

Trinh H.V. Ngo, D. Allen Davis, Marty Riche, Timothy J. Bruce, Luke A. Roy

IMPACT OF GLYCINE SUPPLEMENTATION ON GROWTH AND HEMATOLOGICAL INDICES IN FLORIDA POMPANO *Trachinotus carolinus*

Jing Huang, Heather Jordan, Caitlin Older, Matt Griffin, Peter Allen, David Wise, Penelope Goodman, Grant Reifers, Fernando Yamamoto

EXPLORING CARBOHYDRATE INGREDIENTS FOR POTENTIAL SYNBIOTIC INTERACTION WITH AUTOCHTHONOUS *Lactococcus lactis* MA5 IN DIETS FOR HYBRID CATFISH *Ictalurus punctatus* × *I. furcatus*

Uthpala Padeniya, Terrance Smith, Brian Kowalkowski

INFLUENCE OF PROBIOTIC SUPPLEMENTATION ON GROWTH, SURVIVAL AND MICROBIOME OF BLUEGILLS *Lepomis macrochirus* IN A RECIRCULATING AQUACULTURE SYSTEM

Ana Beatriz de S. Farias, Kasondra Miller, Jing Huang, Grant Reifers,

Penelope M. Goodman, Brian B. Bosworth, Joshua Bumgarner, Ligia U. Gonçalves, Waldemar Rossi Jr., Fernando Y. Yamamoto

CATFISH BY-PRODUCT HYDROLYSATE IMPROVES FEED PALATABILITY FOR PACIFIC WHITE SHRIMP *Litopenaeus vannamei*

Rebecca L. Pedler, Matthew Bansemer, James O. Harris, Ondi L. Crino,

Malgorzata Lagisz

DIETARY SUPPLEMENTS AND BIOLOGICAL PERFORMANCE IN *Haliotis* SPECIES: A SYSTEMATIC EVIDENCE MAP

Laura Horowitz, Scott Snyder

ZEIGLER VPAK IMPROVES SURVIVABILITY OF LARGEMOUTH BASS *Micropterus salmoides* AND RAINBOW TROUT *Oncorhynchus mykiss* IN UNCHALLENGED AND CHALLENGED CONDITIONS

CATFISH / CATFISH HYBRIDS

Tuesday, February 17 1:30 PM - 5:30 PM Concorde B

Chairs: Jimmy Avery, Luke Roy, James Tuttle

Fatin Ilham Fahim, Tilottom Bhattacharjee, Kashyap Adhikari, Sujan Bhattarai, Amit Sinha

ALKALINE pH ENHANCES AMMONIA TOLERANCE IN CHANNEL CATFISH BY IMPROVING ION REGULATION, ENERGY BALANCE, AND RHESUS (Rh) GLYCOPROTEIN GENE EXPRESSION

Tilottom Bhattacharjee, Fatin I. Fahim, Kashyap Adhikari, Sujan Bhattarai, Nishan Kafle, Amit Kumar Sinha

MITIGATION OF WATERBORNE IRON TOXICITY THROUGH pH ELEVATION: EVIDENCE FROM PLASMA IONS, GILL ATPASES, ENERGY STORES, AND GENE PROFILES IN CHANNEL CATFISH

Ellis G. Nabi, Luke A. Roy, Anita M. Kelly, Andrew Barrick, Tham C. Hoang

THE EFFECTS OF WATER QUALITY ON COPPER TOXICITY TO THE MARSH RAMSHORN SNAIL *Planorabella trivolis*

Sarah Knutson, Mark Smith, Brian Dorr, Anita Kelly, Luke Roy

GULP! IMPACTS OF DOUBLE-CRESTED CORMORANT *Nannopterum auritum* ON CATFISH *Ictalurus* sp. AQUACULTURE IN THE BLACK BELT REGION OF ALABAMA AND MISSISSIPPI

Jesse James, Julia Palmer, Anita Kelly, Benjamin Beck, Luke Roy
POND CHARACTERISTICS AND GROWTH DYNAMICS INFLUENCING OVERSIZED
HYBRID CATFISH (*Ictalurus punctatus* ♀ × *I. furcatus* ♂) RETENTION IN
COMMERCIAL AQUACULTURE SYSTEMS

Savannah Saeger, Sydney Staines, Sol Llerena, Mark Liles, Timothy Bruce
SYNERGY OF PROBIOTIC AP193 AND AN ORALLY-DELIVERED BACTERIN FOR
ENHANCED DISEASE RESISTANCE AGAINST VIRULENT *Aeromonas hydrophila* IN
CHANNEL CATFISH

Kennedy Odame, Kwesi Adu Obirikorang, Michael Sedohia, Jesslyn Akrokoh
EFFECT OF AERATION ON THE FEED UTILIZATION, GROWTH PERFORMANCE
AND BEHAVIOUR OF THE AFRICAN CATFISH *Clarias gariepinus*

Rayon Gayle, Wendy Sealey, Stephen Leong, Omolola Betiku
EFFECT OF MANNA OLIGOSACCHARIDES ON GROWTH CHARACTERISTICS OF
CHANNEL CATFISH *Ictalurus punctatus*

James Tuttle, Mark Liles, David Mead, Yogesh Chander, Alyssa Hassinger, Sol Llerena,
Timothy Bruce, Luke Roy, Hisham Abdelrahman, Julio García, Benjamin Beck,
Anita Kelly
A FIELD EVALUATION OF AN ACCURATE, RAPID LOOP-MEDIATED ISOTHERMAL
AMPLIFICATION DIAGNOSTIC ASSAY FOR THE DETECTION OF HIGH-INTEREST
BACTERIAL PATHOGENS AFFLICTING DOMESTIC CATFISH AQUACULTURE
OPERATIONS

Kate Pottle, Darshika Hettiarachchi, Baofeng Su, Mei Shang, Ahmed Shaaban,
David Baker, Kailyn Shealy, Kieran Stein, Brendan Leibert, Misha Soman,
Dhanuka Hewage, Nadeen Abdo, Teresa David, Homnath Dhakal, Ian A.E. Butts,
Rex Dunham
HYBRID CATFISH PRODUCTION USING XENOGENIC CHANNEL CATFISH:
A SUSTAINABLE AND EFFICIENT ALTERNATIVE

Darshika Hettiarachchi, Kate Pottle, Baofeng Su, Mei Shang, David Baker,
Kailyn Shealy, Kieran Stein, Brendan Leibert, Ahmed Shaaban, Misha Soman,
Dhanuka Bambaranda, Nadeen Abdo, Teresa David, Homnath Dhakal, Ian Butts,
Rex Dunham
ENHANCING HYBRID CATFISH PRODUCTION EFFICIENCY THROUGH XENOGENIC
WHITE CATFISH *Ameiurus catus* SURROGACY

Kaylan Martin, Brian Bosworth, Jason Abernathy, Benjamin Beck, Timothy Bruce,
Luke Roy, Rex Dunham, Samitha Liyanage, Kyle Wood, Ian Butts
SPERMATOGENESIS, HORMONAL FLUCTUATIONS, AND TESTICULAR GENE
EXPRESSION CHANGES IN MALE BLUE CATFISH *Ictalurus furcatus* THROUGHOUT
PUBESCENT AND EARLY ADULT STAGES OF DEVELOPMENT

Teresa David, Mei Shang, Kate B. Pottle, Darshika Udari Hettiarachchi, Homnath Dhakal, Dhanuka Bambaranda, Misha Soman, Baofeng Su, Ahmed Shaaban, David Baker, Kailyn Shealy, Kieran Stein, Brendan Leibert, Nadeen Abdo, Ian A.E. Butts, Rex A. Dunham

RESTORATION OF FERTILITY IN GENE EDITED CHANNEL CATFISH *Ictalurus punctatus* AT HYPOTHALAMIC-PITUITARY-GONADAL AXIS RELATED LOCI

Darshika Hettiarachchi, Kate Pottle, Baofeng Su, Mei Shang, David Baker, Kailyn Shealy, Kieran Stein, Brendan Leibert, Misha Soman, Dhanuka Bambaranda, Nadeen Abdo, Teresa David, Homnath Dhakal, Ahmed Shaaban, Ian Butts, Rex Dunham
APPLICATION OF STEM CELL XENOTRANSPLANTATION TO PERPETUATE FAT-1 TRANSGENIC CHANNEL CATFISH *Ictalurus punctatus*

Brian Ott, Fernando Yamamoto, Brian Bosworth
DETERMINANTS OF FEED CONVERSION IN CHANNEL CATFISH

Dhanuka Bambaranda, Nadeen Abdo, Baofeng Su, Ahmed Shaaban, Kate B. Pottle, Darshika Udari Hettiarachchi, Misha Soman, Mei Shang, Jinhai Wang, Rhoda Mae C. Simora, Teresa David, Homnath Dhakal, David Baker, Kailyn Shealy, Kieran Stein, Brendan Leibert, Timothy J. Bruce, Rex A. Dunham
INHERITED ALLIGATOR CATHELICIDIN ANTIMICROBIAL PEPTIDE TRANSGENES CONFER ENHANCED RESISTANCE TO CHANNEL CATFISH VIRUS IN CHANNEL CATFISH *Ictalurus punctatus*

FINFISH GENETICS / SELECTION / GENOMICS

Tuesday, February 17 1:30 PM - 5:30 PM Versaille 2

Chair: Matt Powell

Thomas A. Delomas

AN OPEN-SOURCE SQL DATABASE INTERFACE TO STORE GENOTYPE, PHENOTYPE, AND PEDIGREE DATA FOR BREEDING PROGRAMS

Alexandra Nowicki, James Stoeckel, Scott Rikard, Andrea Tarnecki, Ian Butts
LINKING GENE EXPRESSION TO SPERM QUALITY AND CRYOTOLERANCE IN EASTERN OYSTER *Crassostrea virginica*

Andre Rodriguez, Emmanuel Annang, Jeffrey Warner, Noel Novelo
STRAIN IDENTIFICATION OF WALLEYE *Sander vitreus* FROM WATERWAYS WITHIN KENTUCKY USING SINGLE NUCLEOTIDE POLYMORPHISMS

Emmanuel Annang, Jeffrey Warner, Noel Novelo

FLORIDA BASS *Micropterus salmoides* AND LARGEMOUTH BASS *Micropterus nigricans* GENETICS IN FISHERIES AND AQUACULTURE

Charles Heyder, Casey Murray, Timothy Breton, Christopher Martyniuk, Matthew DiMaggio

DEFINING REPRODUCTIVE ROLES OF SREB RECEPTORS THROUGH NOVEL AGONISTS AND COMPARATIVE FISH MODELS

Kate Pottle, Darshika Hettiarachchi, Baofeng Su, Mei Shang, Ahmed Shaaban, David Baker, Kailyn Shealy, Kieran Stein, Brendan Leibert, Misha Soman, Dhanuka Hewage, Nadeen Abdo, Teresa David, Homnath Dhakal, Ian A.E. Butts, Rex Dunham

PRODUCING XENOGENIC CHANNEL CATFISH *Ictalurus punctatus* AND WHITE CATFISH *Ameiurus catus* WITH FRESH AND CRYOPRESERVED KIDNEY, SPLEEN, INTESTINE, SKIN, AND GONAD TISSUES FROM BLUE CATFISH *I. furcatus* DONORS

Samuel A. May, Samantha V. Beck, Tony Kess, Ian R. Bradbury, Emmanuel A. Lozada-Soto, Maren Wellenreuther

BREEDING FOR THE FUTURE: ENHANCING RESILIENCE IN AQUACULTURE WITH GENOMIC OFFSETS

Takeshi Umazume, Ashutosh Pudasaini, Alejandro P. Gutierrez, Matthew Josephson, Yehwa Jin, Takeshi Umazume, Stefan Samu, Brandon Tsai, Klara Verbyla, John T. Buchanan

INTEGRATING GENOME EDITING INTO BREEDING PROGRAMS: ACHIEVING COMMERCIAL SCALE

Alexander Cossel, Emmanuel Annang

INTERNSHIP AT KENTUCKY STATE UNIVERSITY AQUACULTURE RESEARCH CENTER AND HOW IT WILL HELP US WITH FUTURE PLANS

Jihun Lee, Jeongeun Kim, Gaeun Kim, Yasara Kavindi Kodagoda, Chanuka Ravindu Hanchapola Hanchapola Appuhamilage, Hasitha Dilshan Mantigalla Arachchige, Chandima Gihan Rodrigo Duwage, Nipuni Piyumika Ganepola Ganepola Arachchige, Jeongyong Lee, Taehyug Jeong, Mun-kwan Kim, Jehee Lee

GENETIC DISSECTION OF GROWTH TRAITS IN *Paralichthys olivaceus* UNDER HIGH- AND LOW-FISHMEAL DIETS AND ITS APPLICATION IN ELITE POPULATION DEVELOPMENT VIA GENOMIC SELECTION

Lauren Vandepas, Edward Hayman, Bernarda Calla, Steven Roberts, Adam Luckenbach, Mackenzie Gavery

DEVELOPING TOOLS TO ADVANCE REPRODUCTIVE CONTROL IN THE PACIFIC OYSTER

Yniv Palti, Roger Vallejo, Sixin Liu, Jason Evenhuis, Shogo Tsuruta, Roseanna Long, Gregory Wiens, Kyle Martin

THE GENETIC ARCHITECTURE OF RESISTANCE TO BACTERIAL COLD WATER DISEASE IN RAINBOW TROUT IS ALTERED IN RESPONSE TO GENETIC CHANGES IN THE CAUSATIVE BACTERIAL PATHOGEN

Eric Saillant, Heather King, Andrea Tarnecki, Jim Stoeckel, Scott Rikard, Huiping Yang, Leslie Sturmer, Christopher Hollenbeck, Megan Gima, Sumi Akter, Brynna Buckmaster, Paul McDonald, Jayme Yee, Jerome La Peyre, Elizabeth Robinson, Heather King, Andrea Tarnecki, Jim Stoeckel, Scott Rikard, Huiping Yang, Leslie Sturmer, Christopher Hollenbeck, Megan Gima, Sumi Akter, Brynna Buckmaster, Paul McDonald, Jayme Yee, Jerome La Peyre, Elizabeth Robinson

DEVELOPMENT OF A BREEDING PROGRAM FOR EASTERN OYSTER IN THE GULF OF AMERICA USING COMMUNAL REARING AND MARKER-BASED PEDIGREES

Eric Saillant, Kevin Bishop, Angelos Apeitos, Uchechukwu Ohajiudu
STUDIES OF HATCHERY METHODS FOR THE TRIPLETAIL *Lobotes surinamensis*

GENERAL CONTRIBUTED 1

Tuesday, February 17 3:30 PM - 5:30 PM Burgundy
Chair: Reginald Blaylock

Menaga Meenakshisundaram, Damaris K. Kitili, Josiah A. Sabwa, Sevgan Subramanian, Sunday Ekesi, Ahmad Fatan Nurulhuda, Matthew Owen, Rodrigue Yossa, Chrysanthus M. Tanga

EFFECTS OF DIETARY LYSINE LEVELS ON GROWTH PERFORMANCE, HEMATOBIOCHEMICAL PARAMETERS AND ANTIOXIDANT CAPACITY OF AFRICAN CATFISH *Clarias gariepinus* STRAINS FED INSECT-BASED DIETS

Lauren George, Michal Wojno, Aubrey Dissinger, Karolina Kwasek
TURNING UP THE HEAT: TEMPERATURE PROGRAMMING AND ITS EFFECTS ON GROWTH, SURVIVAL, AND SEX RATIOS IN MODEL SPECIES ZEBRAFISH *Danio rerio*

Artur Rombenso, Pushkar Mandrekar, Harry O'Keane, Caroline Lee, Timothy D.W. Luke, Greg Coman, Dana L.M. Campbell
DEFINING BEHAVIOURAL METRICS OF INDIVIDUAL *Penaeus monodon* BROODSTOCK IN THE CONTEXT OF WELFARE AND BEST PRACTICE HUSBANDRY

Jessica Robinson, Aubrey Dissinger, Karolina Kwasek
HITCHING A RIDE: THE USE OF LIVE FEED AS A VEHICLE OF SBM FOR NUTRITIONAL PROGRAMMING OF OFFSPRING THROUGH BROODSTOCK

Menaga Meenakshisundaram, Juliana Livingstone Gamba, Joseph Ochieng Anyango, Sevgan Subramanian, Sunday Ekesi, Ahmad Fatan Nurulhuda, Matthew Owen, Rodrigue Yossa, Chrysanthus M. Tanga
EFFECT OF DIETARY METHIONINE LEVELS IN INSECT-BASED DIET ON GROWTH PERFORMANCE, DIGESTIVE ENZYMES AND NUTRIENT RETENTION OF LOCAL AND IMPROVED AFRICAN CATFISH *Clarias gariepinus* STRAINS

George Brooks Jr.
APPLYING THE SMALLHOLDER FARMING MODEL TO ENHANCE U.S. URBAN FOOD SECURITY WITH AQUAPONICS

tilapia

Tuesday, February 17 3:30 PM - 5:30 PM Champagne 3

Chair: Kevin Fitzsimmons

Benjamin Young, Saif Algethami, Anwer Abed Alazwari, Faris Alghamdi, Ali AL Shaikhi
TILAPIA *Oreochromis* spp. AQUACULTURE DEVELOPMENT IN SAUDI ARABIA:
CHALLENGES AND STRATEGIES

TUESDAY

FNU Abdul Mateen

VARIABILITY OF INTESTINAL MORPHOLOGY, DIGESTIVE ENZYME PROFILE AND GROWTH PERFORMANCE OF NILE TILAPIA *Oreochromis niloticus* UNDER PARTIAL REPLACEMENT OF FISH MEAL WITH BLACK SOLDIER FLY MEAL IN FEED

Cole Daleiden, Jeffrey Warner, Ayomide Taiwo, Noel Novelo

ONLINE TILAPIA VENDOR PLATFORMS FOR SMALL-SCALE TILAPIA PRODUCERS

Alemken Mengist, Minweyelet Mingist, Abebe Getahun

REPRODUCTIVE BIOLOGY OF NILE TILAPIA *Oreochromis niloticus* AND IMPLICATIONS FOR FISHERIES MANAGEMENT IN LAKE HAYQ, ETHIOPIA

Kevin Fitzsimmons

GLOBAL PRODUCTION AND DEMAND FOR TILAPIA PRODUCTS UPDATE 2026

Andrew Masciola, Kevin Fitzsimmons

USE OF INSECT-BASED FEED WITH BLACK SOLDIER FLY *Hermetia illucens* FOR NILE TILAPIA *Oreochromis niloticus* AND FRESHWATER MUSSELS IN A RECIRCULATING AQUAPONIC SYSTEM

Menaga Meenakshisundaram, Jimmy B. Mboya, Erick Ogello, Sevgan Subramanian, Sunday Ekesi, Ahmad Fatan Nurulhuda, Matthew Owen, Rodrigue Yossa, Chrysantus M. Tanga

QUANTITATIVE DIETARY METHIONINE REQUIREMENTS OF LOCAL AND IMPROVED STRAINS OF NILE TILAPIA *Oreochromis niloticus* FED INSECT-BASED DIETS

Menaga Meenakshisundaram, Richard P. Lorpiongole, James Barasa,

Sevgan Subramanian, Sunday Ekesi, Ahmad Fatan Nurulhuda, Matthew Owen, Rodrigue Yossa, Chrysantus M. Tanga

COMPARATIVE ASSESSMENT OF LYSINE SUPPLEMENTATION ON GROWTH PERFORMANCE, HEMATOLOGY, BIOCHEMICAL AND ANTIOXIDANT ENZYMES OF NILE TILAPIA *Oreochromis niloticus* LOCAL AND IMPROVED STRAINS FED WITH BLACK SOLDIER FLY LARVAE MEAL *Hermetia illucens*

ORNAMENTALS

Tuesday, February 17 3:30 PM - 5:30 PM Chablis
Chairs: Michelle Walsh, Matt DiMaggio, Michael Schwarz

Olivia I. Markham, Casey A. Murray, Amy L. Wood, Brittney D. Lacy, Charles F. Heyder, Matthew A. DiMaggio

UTILIZING PHOTORECEPTOR SPECTRAL SENSITIVITY TO MODIFY LIGHTING FOR LARVICULTURE OF *Paracheirodon innesi*

Brittney Lacy, Casey Murray, Olivia Markham, Maribeth Eslava, Travis Knorr, Charles Heyder, Brandon Ray, Amy Wood, Matthew DiMaggio

REFINING COMMERCIAL LARVICULTURE OF OCELLARIS CLOWNFISH *Amphiprion ocellaris* THROUGH NUTRITIONAL AND ENVIRONMENTAL MANIPULATIONS

Daniel Alexandre, Ruben X.G. Silva, Luísa Marques, Daniela P. Rodrigues, Rafael C. Duarte, Ricardo Calado

TOWARDS COMMERCIAL SEAHORSE FARMING: EFFICIENT REARING OF *Hippocampus erectus*

Chatham Callan, Maria Haws, Sydney Gamiao

INNOVATIONS IN TROPICAL AQUACULTURE: A DECADE OF PROGRESS AT THE PACIFIC AQUACULTURE AND COASTAL RESOURCES CENTER

Brittney Lacy, Casey Murray, Jaimi Gray, Andrew Rhyne, Mathew DiMaggio

CHARACTERIZING SKELETAL DEFORMITIES OF AQUACULTURED OCELLARIS CLOWNFISH *Amphiprion ocellaris* USING COMPUTED TOMOGRAPHY

Casey Murray, Travis Knorr, Amy Wood, Brittney Lacy, Olivia Markham, Madeline Carlson, Charles Heyder, Matthew DiMaggio

INVESTIGATING EARLY WEANING PROTOCOLS FOR LARVAL PEARL GOURAMI *Trichopodus leerii*, INFORMED BY DIGESTIVE PHYSIOLOGY

AQUACULTURE ENTREPRENEURSHIP ACADEMY PANEL

Tuesday, February 17 3:30 PM - 5:30 PM Champagne 2
Chair: Jackson Gross

See Conference APP for details

WEDNESDAY, February 18

PLEASE NOTE: PRESENTATION TIMES

AA2026 presentations for each session are listed in the order of presentation when the Directory goes to press. The presentation times have been omitted because there are many late changes after the Directory is printed. The AA2026 Conference APP will show the presentation times and will be updated during the conference as changes are received. Late cancellations will be marked "Cancelled" in the APP. The AA2026 APP will have the most current version of the Directory and will better assist attendees in planning their schedules.

Wednesday Break 10:00 – 10:30

Wednesday Lunch 12:30 – 1:30

WEDNESDAY

AQUACULTURE ECONOMICS

Wednesday, February 18 8:30 AM - 5:30 PM Concorde B

Chairs: Frank Asche, Ganesh Kumar

Sponsored by IAAEM

Quinn LaFontaine, Taryn Garlock, Frank Asche

GLOBAL SEAFOOD PRODUCTION FROM FISHERIES AND AQUACULTURE IN HIGH- AND LOWER-INCOME COUNTRIES

Taryn Garlock, Frank Asche, Jim Anderson

A COMPARATIVE STUDY ON FISHERIES AND AQUACULTURE PERFORMANCE

Dengjun Zhang, Asche Frank, Ragnar Tveteras

HOW TRADE OPENNESS SHAPES THE DEVELOPMENT OF GLOBAL AQUACULTURE

Hans-Martin Straume, Teis Hansen, Stine H.J. Madsen, Rasmus Nielsen, Maria Tsouri
DO PATENTS PROMOTE EXPORTS? EVIDENCE FROM EUROPEAN AQUACULTURE

Adams Ceballos, Hans-Martin Straume

TRADE COSTS, SHOCKS, AND SEGMENTED EXPORT PATHWAYS: EVIDENCE FROM THE CHILEAN SALMON INDUSTRY

Seok-Young Song, Kwamena K. Quagraine

DO INFORMATION TREATMENTS SHAPE CONSUMER WILLINGNESS-TO-PAY?
EVIDENCE FROM AQUAPONIC LETTUCE AND TILAPIA

Atle Oglend, Frank Asche

ESTIMATING HIGH FREQUENCY OPERATING COSTS FROM ANNUAL ACCOUNTING DATA: THE CASE OF NORWEGIAN SALMON AQUACULTURE

Kwamena Quagrainie, Eugene Nuworsu

HOW TO MAKE AQUAPONIC PRODUCTION FINANCIALLY FEASIBLE IN THE U.S. MIDWEST

Nathaniel Baker, Zachary Moscicki, Adam St. Gelais, Alexander Kinley,

Tobias Dewhurst, Scott Lindell, Damian Brady

HOW LOW CAN YOU GO (REALISTICALLY)? MINIMIZING THE COST OF PRODUCING KELP OFFSHORE

Maria Lavrutich, Jakob Holtedahl Cuhra, Benjamin Stift Krogh

A CLIMATE-INFORMED STOCHASTIC MODEL FOR OPTIMAL SALMON HARVESTING

Hiva Asadikia, Shraddha Hegde, Ganesh Kumar, Carole Engle, Jonathan Van Senten
ECONOMIC RISK ANALYSES OF U.S. AQUACULTURE SYSTEMS

Andrew Ropicki, Leslie Sturmer, SeungHyun Lee

IS THE USDA PILOT CROP INSURANCE PROGRAM FOR FLORIDA OYSTER GROWERS WORTH IT?

Christian Brayden, Shraddha Hegde, Ganesh Kumar, Sebastian Belle

ONE DECADE AND A COUPLE LESSONS LATER: ASSESSING THE ECONOMIC GROWTH OF AQUACULTURE FOR MAINE AND ITS RESIDENTS

Lauren N. Stigers, Ingrid M. Sokup, Jenny Apriesnig

ECONOMIC IMPACT OF POTENTIAL AQUACULTURE PRODUCTION IN MICHIGAN, USA

Hugh Cowperthwaite

FINANCING SMALL SCALE AQUACULTURE FARMS: A MODEL FROM MAINE

Frank Asche, Ursula Landazuri-Tveteras, Bård Misund, Kristin Roll, Ragnar Tveteras, Dengjun Zhang

AGGLOMERATION IN NORWEGIAN SALMON AQUACULTURE REVISITED: THE INDUSTRY HAS MATURED

Thomas M. Anderson

BRANDING IN FARMED SEAFOOD: WHEN QUALITY DRIVES PRODUCTION LOCATION

Rasmus Nielsen, Dagim Belay, Tenaw Abate, Katarina Elofsson
LEVERAGING AUCTIONS FOR COST-EFFECTIVE AND INTEGRATED NITROGEN
REGULATION IN AQUACULTURE AND AGRICULTURE: INSIGHTS FROM DANISH
DATA

Atle Guttormsen, Simen Guttormsen, Muhammad Yahya
PERMANENT REPRICING OR TEMPORARY SHOCK? STOCK MARKET EFFECTS OF
THE NORWEGIAN AQUACULTURE RENT TAX

Joi Surbakti, Frank Asche
VIETNAM'S SEAFOOD SECTOR: TRANSITIONS IN PRODUCTION AND TRADE

F.M.S. Abdal, Uttam Deb
DETERMINANTS AND MARKET POTENTIAL OF U.S. ORNAMENTAL FISH EXPORTS:
EVIDENCE FROM AN AUGMENTED GRAVITY MODEL

Matt Parker, Bobbi Hudson, Robert Rheault, Michael Rubino
U.S. OYSTER PRODUCTION: RECENT TRENDS AND MARKET POTENTIAL

Madan Dey, Md Emran Hossain, Frank Asche
ANALYZING CRAWFISH SALES IN THE U.S. RETAIL MARKET: INSIGHTS FROM
RETAIL-LEVEL SCANNER DATA

Quinn LaFontaine, Taryn Garlock, Frank Asche, Andrew Ropicki, Madan Dey
MARKET INSIGHTS FOR EXPANDING SALES OF POPULAR AQUACULTURE
SPECIES IN THE SOUTHEASTERN UNITED STATES

Madan Dey, Oai Li Chen
MARKET TRENDS FOR RED DRUM PRODUCTS IN THE UNITED STATES: AN
ANALYSIS OF RETAIL-LEVEL SCANNER DATA

Christopher Phan, Shraddha Hegde, Anindita Mandal, Charles Clark,
Jonathan Van Senten, Hiva Asadikia, Ganesh Kumar, Chrystol Winston
RESTAURANT AND SUPERMARKET SURVEYS ON GULF COAST DEMAND FOR
MARINE SPECIES

Lauren N. Stigers, Nicole Wright, John Brawley, Amy Shambach, Kwamenya Quagrainie,
Barry Udelson, Julia Grend, Sharon Moen, Titus Seilheimer, Amy J. Schrank
IS FISH A FOOD, A NATURAL RESOURCE, OR BOTH? AND WHY IT MATTERS

Bianca Ramiro, Otávio Augusto Lacerda Ferreira Pimentel, Taozhu Sun, Stephen Urick,
Fernando H. Gonçalves, Jonathan Van Senten, Michael H. Schwarz,
Wilson Wasielesky Jr., Dariano Krummenauer
PERFORMANCE AND PROFITABILITY OF *P. vannamei* IN SUPER-INTENSIVE
BIOFLOC VS. RECIRCULATING AQUACULTURE SYSTEMS

WEDNESDAY

RAS FUNDAMENTALS

Wednesday, February 18 8:30 AM - 5:30 PM Chablis
Chairs: Michael Ben Timmons, Steven Hall
Sponsor: Aquacultural Engineering Society

Michael B. Timmons

MASS BALANCES, LOADING RATES, AND FISH GROWTH

Edward D. Aneshansley

CULTURE TANK DESIGN FUNDAMENTALS

Edward D. Aneshansley

BIOFILTER DESIGN FUNDAMENTALS

Bert Wecker, Jaime Orellana, Mirko Bögner, Isabela Pinheiro, Matthew J. Slater

BIO-ECONOMIC OPTIMIZATION OF A MARINE RAS CULTIVATING GIANT GROPER

Epinephelus lanceolatus IN EUROPE

J.D. Sawyer

PRACTICAL APPLICATION OF LOWER DAILY FEED RATES AND STOCKING DENSITY ON COMMERCIAL AQUAPONIC SYSTEM DESIGN AND THE RESULTING ECONOMIC AND PRODUCTION IMPLICATIONS FOR PLANTS AND FISH

Wael Ahmed, Joshua Rosettani

RETHINKING WATER MOVEMENT IN AQUACULTURE: ADVANCING SUSTAINABLE CIRCULATION AND AERATION THROUGH MULTIPHASE FLOW ENGINEERING

Steven Hall

BEST PRACTICES IN FISH TRANSPORT

Thomas B. Neilson

GROUNDWATER SUPPLY DEVELOPMENT AND MANAGEMENT FOR LAND-BASED AQUACULTURE: IMPLICATIONS FOR SITE SELECTION AND LONG-TERM OPERATION

Sabine Mader

FEEDS AND FEEDING PRINCIPLES

Ronald F. Malone

RAS DENITRIFICATION FUNDAMENTALS

Brady Billiot, Ron Malone

USING SLUDGE AS THE CARBON SOURCE FOR DENITRIFICATION IN A SEQUENTIALLY OPERATED LOCALIZED SLUDGE DIGESTER

Chinedu Chiama, Mike Benton, Ronald Malone

PERFORMANCE OF LOW-COST LIPID-BASED SUBSTRATES FOR SOLID-PHASE DENITRIFICATION IN RECIRCULATING AQUACULTURE SYSTEMS

AES Annual Meeting

(Will follow the last talk in this session room.)

**SEA GRANT AQUACULTURE
WORKFORCE DEVELOPMENT PROJECTS**

Wednesday, February 18 8:30 AM - 12:30 PM Versaille 2

Chairs: Charles Weirich, Mark Rath

WEDNESDAY

John Frederick, Chris Flight

AQUACULTURE IN AGRICULTURE: A PLANNING GUIDE FOR AQUACULTURE AND AQUAPONICS IN THE CLASSROOM

Julia Grenn, Donald Schreiner, Amy Schrank

WORKFORCE DEVELOPMENT IN THE MINNESOTA SEA GRANT AQUACULTURE LAB

Carissa Maurin, Christian Brayden

CULTIVATING MAINE'S NEXT GENERATION OF AQUACULTURE PROFESSIONALS

Rob Hudson, Azure Cygler, Tracey Dalton

BEYOND THE BASICS FOR BUSINESSES AND PRACTITIONERS

Arron Jones, Melissa Good

KELP FARM OPERATIONS: TRAINING OF THE TRAINERS. LESSONS GIVEN AND LESSONS LEARNED

Lily Keyes, Michael Triantafyllou, Danny Badger

AQUACULTURE SHOCK: INTERNATIONAL INTERNSHIPS FOR U.S.-NORWAY KNOWLEDGE EXCHANGE

Russell Grice, Andrea Tarnecki

THE COMMERCIAL OYSTER AQUACULTURE SECTOR TRAINING (COAST) PROGRAM: PHASES I & II

Ashleigh Epps, Nicole Naar, Melissa Poe

TIDE'S OUT: SHELLFISH AQUACULTURE WORKFORCE DEVELOPMENT PROGRAMS

Diana Burich, Michael Acquaferro, Jenny Shinn, Lisa Calvo

BUILDING THE NEXT GENERATION OF AQUACULTURE PROFESSIONALS WITH THE NEW JERSEY APPRENTICESHIP IN SHELLFISH AQUACULTURE PROGRAM (ASAP)

Tessa Getchis, Martyn Haines, Andrew Parker, Michael Gilman, Zachary Gordon, Elizabeth Kendall, Emma Cross, Michelle Stephens, Alysa Mullens

HOOKED ON A CAREER: CHARTING A COURSE IN AQUACULTURE WORKFORCE DEVELOPMENT IN CONNECTICUT

Danny Badger, Joshua Reitsma, Abigail Archer, Rachel Hutchinson, Lily Keyes
EXTENDING AND INTEGRATING AQUACULTURE WORKFORCE DEVELOPMENT IN MASSACHUSETTS

Josh Kim, Jocelyn Juliano, Matthew Gorstein, Steve Richards
DEVELOPING A COMMERCIAL SEAFOOD WORKFORCE TRAINING PROGRAM IN SOUTH CAROLINA

Anne Nanea Rosa, Darren K. Okimoto, Bradley K. Fox, Cherie Kauahi, Elizabeth A. Lenz, Darren T. Lerner

HAWAII SEA GRANT AQUACULTURE INTERNSHIP PROGRAM STRENGTHENS WORKFORCE IN THE PACIFIC

Kevin Johnson, Theresa Talley, Luke Gardner, Carrie Culver, Simona Augyte, Thomas Tubon, Carisa Chavez, Joseph Bursey
DESIGNING AND LAUNCHING A COMMUNITY COLLEGE AQUACULTURE WORKFORCE DEVELOPMENT PROGRAM TO HELP READY SOUTHERN CALIFORNIA FOR A GROWING AQUACULTURE INDUSTRY

MARICULTURE

Wednesday, February 18 8:30 AM - 5:30 PM Concorde C

Chairs: Tyler Scodnick, Abigail Bockus

Ruth Branch, Mikaela Freeman, Lysel Garavelli, Deborah Rose

OPPORTUNITIES FOR THE CO-LOCATION OF AQUACULTURE AND MARINE ENERGY

Drue Banta Winters, Tyler Scodnick

U.S. FEDERAL LEGISLATIVE UPDATE ON OFFSHORE AQUACULTURE

Tori Spence, Kristina Dauterman, Rachel Anderson, Kaiya-Amani John, Tyler Korte, Steve Barnes

UNDERSTANDING INTERACTIONS BETWEEN ENDANGERED MARINE MAMMALS AND TROPICAL AQUACULTURE

Md Mamunur Rashid Patwary, Igor Tsukrov, Longhuan Zhu, Zachary Davonski, Michael Chambers, David W. Fredriksson

EVALUATION OF STRESSES OF AN INTEGRATED MULTI-TROPHIC AQUACULTURE SYSTEM UNDER EXTREME OCEAN CONDITIONS FOR THE GULF OF AMERICA

Michael MacNicoll, Samuel Rickerich, Tobias Dewhurst, Zach Moscicki, Alex Kinley, Nathaniel Baker

DE-RISKING INVESTMENTS IN AQUACULTURE THROUGH HIGH RESOLUTION OCEAN AND WAVE SIMULATIONS INTEGRATED WITH MODEL-BASED ENGINEERING AND TECHNO-ECONOMIC ANALYSIS

Corey Sullivan

INTEGRATED SUBMERSIBLE AQUACULTURE FOR WARM WATER OPEN OCEAN

David W. Fredriksson, Matthew Bowden, Longhuan Zhu, Igor Tsukrov, Md. Mamun R. Patwary, Julie Paprocki, Tobias Dewhurst, Corey Sullivan, Zachary Davonski, Richards Sunny

OFFSHORE AQUACULTURE ENGINEERING: PART II – BEST PRACTICES FOR U.S. FEDERAL WATERS

Tyler Sciodnick, Tobias Dewhurst, Zack Moscicki, Samuel Rickerich, Michael MacNicoll, Corey Sullivan

FINANCIAL OUTLOOK OF OPEN OCEAN AQUACULTURE

Daniel Benetti

THE PATH TO OFFSHORE MARINE FISH AQUACULTURE: APPLIED ADVANCED TECHNOLOGIES FROM R&D TO COMMERCIALIZATION

Vivian Oletty, Leixin Ma

REAL-TIME PREDICTION OF AQUACULTURE NET DEFORMATION USING MeshODENet

Annie Schatz, Melissa Good, Sherry Larkin, Elizabeth Lenz, Fredrika Moser, Shauna Oh, Laura Picariello, Cathlyn Davis, Susan White, Gayle Zydlowski, Jenna Clark CONNECTING SEA GRANT, THE NATIONAL CENTERS FOR COASTAL OCEAN SCIENCES, AND COASTAL-OCEAN COMMUNITIES TO IMPROVE SUSTAINABLE AQUACULTURE DEVELOPMENT AND SITING PROCESSES

Jose A. Rivera, Carlos Tudela, Mohamed Diop, Leonardo Ibarra-Castro, Valerio Vitalini, Daniel Benetti

RECENT COMMERCIAL MARICULTURE EFFORTS AND ACTIVITIES IN THE CARIBBEAN REGION

Tyler Sciodnick, Emmanuel Maldonado-Gonzalez, Chris Schillaci, George Nardi DEVELOPING AN OPEN OCEAN FISH FARM IN PUERTO RICO

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

James A. Morris

AQUAWHERE? HOW NOAA MARINE SPATIAL PLANNING IS FINDING SPACE AND INCREASING PERMITTING EFFICIENCY FOR OFFSHORE AQUACULTURE

Kristine Cherry

NAVIGATING REGULATORY SEAS: DEMYSTIFYING THE U.S. FEDERAL AQUACULTURE PERMITTING PROCESS

Kenneth L. Riley

BASELINE ENVIRONMENTAL SURVEYS FOR U.S. OFFSHORE AQUACULTURE DEVELOPMENT

Jessica Couture, Kenneth Riley, Daniel Wieczorek, James Morris Jr.

SPATIAL THERMAL SUITABILITY OF CANDIDATE FINFISH SPECIES IN U.S. OFFSHORE AQUACULTURE

Jennica Lowell, Neil Anthony Sims, Gavin Key, Dennis Peters

ECONOMIC OPPORTUNITIES AND CONSERVATION IMPERATIVES: THE MARRIAGE OF THE MARA ACT, AND THE CHALLENGES NOW FACING OFFSHORE AQUACULTURE IN THE USA

Tyler Sciodnick

TOP LOCATIONS FOR NET PEN AQUACULTURE IN THE CARIBBEAN

Dennis Peters, Neil Sims

THE VELELLA EPSILON PROJECT: PIONEERING OFFSHORE AQUACULTURE IN THE SOUTHEASTERN GULF OF MEXICO; CHAPTER 7 – FINALIZING PROJECT PERMITTING AND PREPARING FOR DEPLOYMENT: ACT IV

Christopher Schillaci, Kerian Fennelly, Dianna Fletcher, Nathaniel Molinari, James A. Morris Jr.

SITING AND PERMITTING A COMMERCIAL SCALE FEDERAL WATERS MUSSEL FARM

Carlos Carroza, Neil Anthony Sims, Dennis Peters, Daniel Benetti

SEASONAL VARIATION OF OCEANOGRAPHIC CONDITIONS FOR POTENTIAL OFFSHORE AQUACULTURE SITES OFF THE EAST COAST OF FLORIDA

Daniel Benetti

APPLIED ADVANCED TECHNOLOGIES OF MARINE FISH AQUACULTURE: FROM HATCHERY TO MARKET

Jessica Couture, Brandon Jensen, Kenneth Riley, Christopher Schillaci, Seth Theuerkauf, James Morris
OFFSHORE ENERGY AND AQUACULTURE CO-LOCATION: CHALLENGES AND OPPORTUNITIES IN U.S FEDERAL WATERS

Mark A. Rath

INTRODUCING A NEW NOAA COOPERATIVE INSTITUTE TO ADVANCE U.S. AQUACULTURE RESEARCH AND MARKETING

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

Wednesday, February 18 8:30 AM - 12:30 PM Burgundy
Chair: Josh Paterson

WEDNESDAY

Madeline Redd, Mark Smith, Luke Roy, Anita Kelly, Brian Dorr
IMPACT OF BLACKBIRD DEPREDATION ON BAITFISH AND SPORTFISH
AQUACULTURE IN ARKANSAS

Joshua Patterson, M. Cristina Diaz, Lisa Krimsky, Shelly Krueger, Shirley A. Pomponi, Iris Segura-Garcia, Ana Zangroniz, Ashley Smyth
EXPANDING NEARSHORE HARDBOTTOM SPONGE RESTORATION RESEARCH IN SOUTH FLORIDA

Aaron Pilnick, Joshua Patterson, Robert Lamb, Brittany Scharf, Donald Behringer
DESIGNING BETTER SPONGE ENHANCEMENTS: SPECIES AND INTERACTIONS SHAPE PERFORMANCE

Cassidy Parker, Kevin Neves
EXPOSURE EFFECTS OF NITRATES ON THE GROWTH AND REPRODUCTION OF THE ENDANGERED SPECIES *Zoogoneticus tequila*

Gibson Gaylord, Matt Toner, Jacob Veilleux, Abigail Bockus, Alyssa Harmel, Jeffrey Powell
EFFECT OF TOTAL DISSOLVED GAS SUPERSATURATION ON CUTTHROAT TROUT HATCH AND FRY SURVIVAL

Spencer Davis, Anthony Mau, Erik Franklin
PROGRESS TOWARDS RESPONSIBLE AQUACULTURE-BASED FISHERIES STOCK ENHANCEMENT OF THE GIANT TREVALLY *Caranx ignobilis* IN HAWAII

Haley Lasco, Jason Broach, Aaron Watson, Tanya Darden, River Bryant, Justin Yost, Matt Walker, Jackie Allen, Rich Harrington

SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES SOUTHERN FLOUNDER STOCK ENHANCEMENT PROGRAM 10 YEAR STRATEGIC PLAN

Johnsua Patterson, Holly Abeels, Michael Allen, Thomas Ankersen, Edward Camp, Adams Ceballos, Sandra Chupinsky, Mark Clark, Tyler Ferguson, Kelly Grogan, Enie Hensel, Timothy Jones, Laura Reynolds, Savanna Barry
INFORMING SEAGRASS PROPELLER SCAR RESTORATION VIA ACTIONABLE RESEARCH

Taylor Lipscomb, Jennifer Gumm, Riley Andrade, Nathan Wilke
TOOLS FOR SYSTEM-LEVEL ASSESSMENT AND DECISION MAKING IN THE NATIONAL FISH HATCHERY SYSTEM

Bijoy Kumar Ghosh

HYDRAULIC IMPACT ON FISH MIGRATION IN SARIAKANDHI FISH PASS OF BANGLADESH

MACROALGAE / MICROALGAE

Wednesday, February 18 8:30 AM - 5:30 PM Concorde A
Chairs: Anoushka Concepcion, Melissa Good

Melissa Good, Anoushka Concepcion

STATE OF THE STATES: PROGRESS, CHALLENGES, AND OUTLOOK FOR SEAWEED AQUACULTURE

Rafael Cuevas Uribe, Erika Thalman, Kalani Ortiz, Brian Donovan, Marzia Fattori, Evan Simpson, Phillip Tahimic

RIDING THE CALIFORNIA SEAWEED WAVE: AN OVERVIEW OF THE CAL POLY HUMBOLDT PROVIDENSEA SEAWEED FARM

Nicholas Mangini

KELP IN ALASKA – AN OVERVIEW OF THE INDUSTRY SO FAR AND WHAT THE FUTURE MAY HOLD

Charlie Herrington, Dan Lesh

ALASKA MARICULTURE CLUSTER: CATALYZING ALASKA'S SEAWEED INDUSTRY

Angela Bowers, Sara Ebersole

BUILDING ALASKA'S SEAWEED WORKFORCE: MARICULTURE TRAINING AND INNOVATION AT UAS

Alix Laferriere, Angela Korabik
THE ALASKAN BULL KELP RESEARCH SQUAD

Catriona K. Macleod
SEAWEED AQUACULTURE IN AUSTRALIA: ADVANCING SUSTAINABLE
DEVELOPMENT, CLIMATE ACTION AND BLUE ECONOMY GROWTH

Phillip Tahimic, Rafael Cuevas Uribe
GAMETOPHYTE SEEDING IN A UNIVERSAL HATCHERY SYSTEM: PROTOCOL
FOR WINGED KELP *Alaria marginata* FROM NURSERY TO LAND-BASED TUMBLE
CULTURE

Euna Seo, Jang Kyun Kim
SEX-SPECIFIC RESPONSES OF GAMETOPHYNES TO *Sargassum horneri* EXTRACT
(SHE) CONFER CROSS-GENERATIONAL HEAT TOLERANCE IN *Undaria pinnatifida*

Tamsen Peeples, Muriel Dittrich, Michael Stekoll
KELP HATCHERY INNOVATION; NATURAL FIBER AND NOVEL FERTILIZER

Samantha Miles, Gracie Barringer, Darren Okimoto, Bradley Fox
HATCHERY DEVELOPMENT AND EARLY-STAGE CULTIVATION OF HAWAIIAN
Asparagopsis taxiformis FOR RESTORATIVE AQUACULTURE

Jeong Hwa Hwang, Ji-Sook Park, Jang K. Kim
IRON AVAILABILITY AS A KEY DETERMINANT OF GROWTH, PHOTOSYNTHESIS
AND PIGMENT SYNTHESIS IN *Pyropia yezoensis*

Jae Woo Jung, Muriel Dittrich, Schery Umanzor, Jang Kyun Kim
COMMERCIAL FERTILZER FOR ENHANCED COST-EFFICIENCY IN LAND-BASED
CULTIVATION OF PACIFIC DULSE *Devaleraea mollis*

Evan Simpson, Rachael Wade, Rafeal Cuevas-Uribe
DEVELOPMENT OF A LONGLINE CULTIVATION SYSTEM FOR RIBBON KELP *Alaria*
marginata IN AN ESTUARINE ENVIRONMENT

Kendall Barbery
FROM SEED TO STABILIZATION: KEY FINDINGS AND RECOMMENDATIONS FROM
GREENWAVE'S KELP INDUSTRY REPORT

Kayla McKinley, Gulnihal Ozbay
MICROALGAE: WHAT IS IT GOOD FOR? AN INTEGRATIVE ANALYSIS OF NUTRIENT
REMOVAL AND BIOMASS ACCUMULATION IN ALGAL TURF SYSTEMS FOR
AQUACULTURE PRACTICES

Laura Karina Rangel Mendoza, Carmen Guadalupe Paniagua-Chávez,

Jose Miguel Sandoval-Gil, José Antonio Zertuche-Gonzalez,

Alejandra A. Mussot Rosales, Lucia Suárez López

CRYOPRESERVATION OF *Macrocystis pyrifera* SPORES: PRELIMINARY INSIGHTS INTO FREEZING RATE OPTIMIZATION

Ima Hosseinzadeh, Quinn Roberts, Haley Uliasz, William Walton, Nicole Millette

PREY QUALITY CONSISTENCY OF PHYTOPLANKTON CULTURES IN HATCHERY SYSTEMS

Michael Ciaramella, Anoushka Concepcion, Jennifer Perry, Amanda Shore, Indu Upadhyaya, Zachary Gordon, Catherine Janasie, Christina DeWitt, Razieh Farzad, Brian Himelbloom
SEAWEED SAFETY: ADDRESSING RISKS AND SUPPORTING INDUSTRY GROWTH

Ji-Sook Park, Jeong Hwa Hwang, Na Young Lee, Jang Kyun Kim

BLUE CARBON FROM GREEN TIDES: CARBON REMOVAL POTENTIAL OF INTERTIDAL ULVA BLOOMS

Alan Wilson, Saranya Anantapantula, Susanne Wittenzeller, Matthew Gladfelter, Suzanne Tenison, Hannah Zinnert, Angelea Belfiore

COPPER SULFATE TREATMENT HARMS ZOOPLANKTON AND ULTIMATELY PROMOTES ALGAL BLOOMS: A FIELD MESOCOSM EXPERIMENT

Andrew Barrick, Sayem Ahmed, Melissa Boersma, Benjamin H. Beck, Tham Hoang
EFFICACY OF TREATING CYANOBACTERIAL BLOOMS USING COPPER AND ORGANIC HERBICIDE MIXTURES

Steve Morton, Andrew Shuler

PARTICIPATORY SCIENCE APPROACH TO MONITOR HARMFUL ALGAL BLOOMS, WATER QUALITY AND CHANGES IN ENVIRONMENTAL CONDITIONS WITH THE AQUACULTURE INDUSTRY

Giuseppe Esposito, Paolo Pastorino, Edoardo Turolla, Martina Gini, Giulia Milanese, Fabio Bondavalli, Matteo R. Di Nicola, Rita Melillo, Domenico Meloni, Riccardo Diciotti, Jacopo Culurgioni, Sebastiano Virgilio, Marino Prearo, Silvia Colussi

ISOLATION AND ANALYSIS OF HAEMOLYMPH-ASSOCIATED CULTURABLE BACTERIA IN THE BLUE CRAB *Callinectes sapidus* IN THE NORTHERN ADRIATIC SEA (ITALY)

Emily Reynolds, Alicia Bishop

SEAWEED MAPPING IN ALASKA

Victor Wright, Gulnihal Ozbay

A COMPARATIVE ANALYSIS OF LIQUID ALGAE FERTILIZERS TO COMMERCIAL AND ORGANIC FERTILIZERS

Aaron Poe, Rachel Lekanoff

KELP VALUES: SOCIAL, CULTURAL AND ECONOMIC ASSESSMENT OF KELP MARICULTURE OPPORTUNITIES FOR COASTAL VILLAGES WITHIN THE EVOS SPILL ZONE

Angela Korabik, Michael Stekoll, Jan Conitz, Tamsen Peeples, Veronica Farrugia Drakard, Lexa Meyer, Alf Pryor, Olivia Duner, Alix Laferriere, Jessica Kamman
FROM HATCHERY TO HARVEST: EXAMINING THE EFFECTS OF DIFFERENT HATCHERY ENVIRONMENTS THROUGHOUT THE BULL KELP *Nereocystis luetkeana* LIFECYCLE

Minu Kesheri, Andrew J. Ray

DELTA-6 DESATURASE-RICH MICROALGAL FEED FOR ENHANCED PUFA BIOSYNTHESIS IN FISHES

WEDNESDAY

Ye-Seul Lee, Jang Kyun Kim, Ji-Sook Park

CAN HEAT TOLERANCE FROM *Sargassum horneri* EXTRACT BE PASSED ON THROUGH ASEXUAL REPRODUCTION IN *Pyropia yezoensis*?

USAS COMMUNITY ENGAGEMENT AND OPPORTUNITY: CHALLENGES AND OPPORTUNITIES OF APPRENTICESHIP PROGRAMS IN U.S.

Wednesday, February 18 8:30 AM - 12:30 PM Bordeaux

Chairs: Eric Saillant; Angela Caporelli

See Conference APP for details

PHYSIOLOGY AND MICROBIOME

Wednesday, February 18 8:30 AM - 12:30 PM Loire

Chair: Omolola Betiku

Nada Dahouk, Lindee Mason, Ahmed Mustafa

PHYSIOLOGICAL AND IMMUNOLOGICAL EFFECTS OF ASTAXANTHIN IN NILE TILAPIA *Oreochromis niloticus*

Shah Sumaiya Khaled, Elena Deng, Ishini A. Appuhami, Brent M. Vuglar,

Timothy J. Bruce, Md Romael Haque, Lindee Mason, Ahmed Mustafa

PREDICTING LONG-TERM IMPACT OF DIETARY NUTRACEUTICAL SUPPLEMENTS ON PHYSIOLOGICAL AND IMMUNOLOGICAL RESPONSE IN LARGEMOUTH BASS *Micropterus nigricans* USING SUPERVISED MACHINE LEARNING APPROACHES

Elena Deng, Sumaiya Khaled, Lindee Mason, Ishini Appuhami, Brent Vuglar, Timothy Bruce, Ahmed Mustafa

EFFECTS OF FIVE NUTRACEUTICALS ON PHYSIOLOGICAL AND IMMUNE GENE EXPRESSION IN HYBRID CATFISH

Emily G. Aguirre, Michael Marty-Rivera, Sergey Nuzhdin, Erin McCauley
KELP ARK – A BIOBANK OF BENEFICIAL MICROBES INVOLVED IN CRUCIAL LIFE STAGES OF KELP AND BEYOND

Kashyap Adhikari, Tilottom Bhattacharjee, Fatin I. Fahim, Sujan Bhattarai, Rebecca Lochmann, Amit Kumar Sinha, Nishan Kafle

HARNESSING AMMONIA STRESS MEMORY FOR IMPROVING TOLERANCE AGAINST AMMONIA TOXICITY IN CHANNEL CATFISH: INSIGHTS INTO ION-REGULATION, ENERGY BALANCE, AND GENE EXPRESSION

Nishan Kafle, Kashyap Adhikari, Tilottom Bhattacharjee, Fatin I. Fahim, Sujan Bhattarai, Sharareh Jahanbin, Rebecca Lochmann, Amit Kumar Sinha

MILD IRON PRE-EXPOSURE INDUCES STRESS MEMORY AND ENHANCES TOLERANCE IN JUVENILE CATFISH UNDER TOXIC IRON CONDITIONS

Ye Joon Seo, Ji-Sook Park, Jang Kyun Kim

POTENTIAL OF *Sargassum honeri* EXTRACT AS A NATURAL BIOSTIMULANT FOR IMPROVING THE SALT TOLERANCE OF *Suaeda japonica*

Nolwenn Callac, Carolane Giraud, Nelly Wabete, Viviane Boulo, Dominique Pham
WANTED: BACTERIAL LINEAGES INVOLVED IN PENAEIDAE LARVAE HEALTH IN HATCHERIES IN NEW-CALEDONIA

Yonathan Tilahun, Malcolm McCallum, Kamal Gosh, Victor Ware, Ali Lounis
CONCENTRATED MEDIA INOCULANT FOR FOOD PRODUCTION USING METAGENOMICS

Marina Subramaniam, Madison S. Powell, Brian C. Small

USSING CHAMBER CHARACTERIZATION OF INTESTINAL METHIONINE TRANSPORT AND EFFECTS OF SPECIFIC ANTI-NUTRITIONAL FACTORS IN RAINBOW TROUT *Oncorhynchus mykiss* AND ATLANTIC SALMON *Salmo salar*

AQUATIC ANIMAL HEALTH

Wednesday, February 18 8:30 AM - 12:30 PM Champagne 2

Chair: Timothy Bruce

Abdulmalik Oladipupo, Anita Kelly, Benjamin LaFrentz, Luke Roy, Allen Davis, Timothy Bruce

HUMIC SUBSTANCES WITH BUTYRATE ALONE OR WITH YEAST CELL WALLS IMPROVE GROWTH AND SURVIVAL OF NILE TILAPIA UNDER COINFECTION WITH *Flavobacterium oreochromis* AND *Streptococcus agalactiae*

Ishini Anuththara Appuhami, Timothy J. Bruce, Shrijan Bajracharya, D. Allen Davis
EFFECTS OF PROBIOTIC DOSE ON GROWTH PERFORMANCE, HEALTH, AND GUT MICROBIOTA OF PACIFIC WHITE SHRIMP *Litopenaeus vannamei* REARED IN BIOFLOC SYSTEM

Mary Nia Santos, Leobert D. de la Peña, Erh-Min Lai, Jenz C. Contante
GENOMIC INSIGHTS INTO THE ASSOCIATION OF TYPE VI SECRETION SYSTEM AND THE *pirAB* TOXIN GENES OF ACUTE HEPATOPANCREATIC NECROSIS DISEASE (AHPND)-CAUSING *Vibrio* spp.

Adesoji Adebambo, Adelaja Arigbabu, Oyebamiji Fafioye, Oladunni Adekunle, Timilehin Babarinde, Aderemi Oke
MORPHOMETRIC STUDIES OF *Clarias gariepinus* (BURCHELL, 1822) FARMED IN NON-WILD PONDS IN IBADAN, SOUTHWEST NIGERIA

Lesley Clark, Mark Braceland, Carmi Riesenbach, Katrina MacNeill, Joseph Boaheng, Lesley Clark
PREDICT. PREVENT. PERFORM: SMARTER FISH HEALTH THROUGH BLOOD INSIGHTS

Mark Braceland, Carmi Riesenbach, Katrina MacNeill, Lesley Clark, Joseph Boaheng
LEVERAGING MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE TO OPTIMIZE STOCK RISK AND PERFORMANCE

Salit Suchart, Jareeporn Ruangsri
THERAPEUTIC POTENTIAL OF PLANT EXTRACTS AGAINST *Enterocytozoon hepatopenaei* INFECTION IN PACIFIC WHITE SHRIMP *Litopenaeus vannamei*

Brent Vuglar, Savannah Saeger, Marie Tan, Jie Ma, Krishna Singha, Benjamin LaFrentz, Esteban Martinez, Matt Griffin, Timothy Bruce
VIRULENCE ASSESSMENT OF *Edwardsiella piscicida* ISOLATES OF VARYING GENETIC GROUPS AND *IN VIVO* CO-INFECTION WITH *Flavobacterium columnare* IN NORTHERN LARGEMOUTH BASS *Micropterus nigricans*

Krishna P. Singha, Brent M. Vuglar, Savannah B. Saeger, Marie R. Tan, Jie Ma, Benjamin R. LaFrentz, Esteban Soto, Matt J. Griffin, Timothy J. Bruce
COINFECTION DYNAMICS OF *Edwardsiella piscicida* AND *Aeromonas veronii* IN NORTHERN LARGEMOUTH BASS *Micropterus nigricans*

WEDNESDAY

CALIFORNIA AQUACULTURE ASSOCIATION

What Opportunities Exist in California, and What Challenges Lie Ahead?

Wednesday, February 18 8:30 AM - 5:30 PM Champagne 1

Chair: Michael Lee

This session aims to explore these questions and more, offering insight into topics such as the history of aquaculture in California, the current business and regulatory landscape for aquaculture and commercial seafood, the sector's role in addressing climate change, advances in feed and sustainability, and new opportunities for industry growth and expansion across the state.

WEDNESDAY

Tony Vaught, Professional Aquaculture Services
CALIFORNIA AQUACULTURE FLYOVER

Peter Struffeneger, Pacific Plaza Imports/ Plaza Aquafarms
OPPORTUNITIES AND CHALLENGES IN RESTORATIVE AQUACULTURE ON THE
WEST COAST: A LOOK AT PURPLE SEA URCHIN RANCHING

Leah Stoker, FishPros Network
CAREER NAVIGATION, BRANDING & NETWORKING IN THE NEW WORK WORLD

Daniel Svezey, Kashia Band of Pomo Indians
CALIFORNIA TRIBAL AQUACULTURE: A PATH OF RESILIENCE AND RECOVERY

Jesse Trushenski, Riverence
WORKING WITH INDUSTRY: THE VALUE OF GETTING RESEARCH OUT OF THE
LAB AND INTO THE FIELD

Bill Keleher, Kennebec River Biosciences
THE ROLE OF AQUATIC HEALTH IN CALIFORNIA AQUACULTURE DEVELOPMENT

Lori Gustafson, USDA APHIS
THE WHY AND HOW OF STATE/INDUSTRY-LED DISEASE FREEDOM CLAIMS

Paul Grech, OctaPulse
APPLYING AI VISION IN HATCHERIES TO IMPROVE COHORT QUALITY AND FARM
OUTCOMES

Devin Fitzgerald, California Sea Grant
PUBLIC AWARENESS AND ATTITUDES TOWARD AQUACULTURE IN CALIFORNIA:
INSIGHTS FROM A 2025 MULTIMODAL SURVEY

Jackson Gross, UC Davis
AQUACULTURE COOPERATIVE EXTENSION IN CALIFORNIA: CURRENT AND
FUTURE ACTIVITIES

Megan Sorby, Pine Island Redfish

HOW WE GROW FISH, AND TRUST: A REGENERATIVE AQUACULTURE STORY

AFTERNOON ROUNDTABLE AND NETWORKING SESSION:

From Research to Reality – Unlocking U.S. Aquaculture Growth

Moderator: Megan Sorby, Pine Island Redfish

**AQUACULTURE KNOWLEDGE FROM OLD COOTS
VOLUME VII**

Wednesday, February 18 8:30 AM - 12:30 PM Champagne 3

Chair: Bob Robinson

Join a group of seasoned industry veterans for a candid look at the lessons, failures, and breakthroughs that shaped the aquaculture sector. This session bridges the generational gap, offering the next wave of professionals a rare opportunity to gain decades of perspective and practical wisdom

Kathleen Hartman, MS, DVM, Ph.D., M.O.U.S.E., Staff Veterinarian Kennebec River BioSciences

GRIT, SENILITY, AND HUMOR: THE MAKE-UP OF A COOT

Bill Mebane, Retired Aquatic Systems Engineer, Woods Hole Marine Biological Laboratory

BRIDGING THE GAP BETWEEN INDUSTRY & AQUACULTURE

Paul Zajicek, Retired Executive Director, National Aquaculture Association
DO NO HARM

Mike Schwartz, Associate Director, Virginia Seafood AREC
AQUACULTURE – THE GOOD, THE BAD, AND THE UGLY

Rafael ZeLaya, Shrimp Man

MY 35+ YEARS OF SHRIMP EXPERIENCE AROUND THE WORLD

Jim Bowker, Retired coot from USFWS and Riverence

A SPLASH OF COURAGE AND A DASH OF CONFIDENCE – THE SECRET INGREDIENTS

Jackie Zimmerman, North American Account Manager, Merck Animal Health
AQUACULTURE: WHERE IT'S AT, WHERE IT'S GOING ... LOOKING AHEAD

Sandra (Sandy) Malone, AST Bead filtration, HR Manager

I'LL FOLLOW YOU ANYWHERE

WEDNESDAY

EXPLORING BEST PRACTICES IN STATE AQUACULTURE POLICY: MONITORING AND REPORTING REQUIREMENTS

Wednesday, February 18 8:30 AM - 5:30 PM Versaille 3
Chair: TBA

See Conference APP for details

WEDNESDAY

SHRIMP HEALTH AND DISEASE

Wednesday, February 18 1:30 PM - 5:30 PM Bordeaux
Chair: Arun Dhar

Kuakarun Krusong, Thatcheewa Apichatayanon, Suwattana Visetnan, Thapanan Jatuyosporn, Vichien Rimphanitchayakit, Anchalee Tassanakajon
FUNCTIONAL STUDY OF SINGLE WHEY ACIDIC PROTEIN, SWDPm2, FROM BLACK TIGER SHRIMP *Penaeus monodon*

Hung Mai, Dinh Hung Nguyen, Carlos Pantoja, Maiya Matthews, Harris Wright, Arun Dhar
GENOMIC CHARACTERIZATION OF *Vibrio parahaemolyticus* STRAIN (AG1) CAUSING TRANSLUCENT POST-LARVAE DISEASE (TPD) IN *Penaeus vannamei*

Nelly Wabete, Celia Lemeu, Clarisse Majorel, Gael Lecellier, Veronique Berteaux-Lecellier, Nolwenn Callac
MARINE INVERTEBRATE ASSEMBLAGES: INFLUENCE ON MICROBIOTA AND SHRIMP HEALTH

Nguyen Dinh-Hung, Hung N. Mai, Arun K. Dhar
DEVELOPMENT AND COMPARATIVE EVALUATION OF *Taq*MAN REAL-TIME PCRASSAYS FOR DETECTING *Enterocytozoon hepatopenaei* (EHP) IN SHRIMP

Susan Knudson, Chaithanya Krishna Reddy Noti, Luke Keeton
PROBIOTICS VS. VIBRIO: QUORUM QUENCHING AND CELL SECRETIONS

John Foscue, Paul Schofield, Carlos Pantoja, Nguyen Dinh-Hung, Arun Dhar
DEVELOPING AN *IN VIVO* WHITE FECES SYNDROME (WFS) CHALLENGE MODEL IN *Penaeus vannamei*

Douglas Marthaler, Jarvin Nipales, Maia Koliopoulos, Hung Mai, Thi Hyunh, Exanil Plantig, Arun Dhar
EVALUATING A STREAMLINED TOTAL NUCLEIC ACID EXTRACTION WORKFLOW FOR SHRIMP PATHOGEN DETECTION USING THE INDIMAG 2 AND PREFILLED CARTRIDGE

Arun Dhar, Deborah Schaefer, Maiya Matthews, Paul Schofield, Hung Mai

ENGINEERING A SHRIMP VIRAL VECTOR FOR THE DELIVERY OF THERAPEUTIC RNA TO CONTROL WHITE SPOT DISEASE IN SHRIMP *Penaeus vannamei*

Roberto Cruz-Flores, Arjoneel P. Dhar, Thales P.D. Andrade, Arun K. Dhar, Olivia Cabanillas-Bernal

UNCOVERING THE HIDDEN PREVALENCE OF *Penaeus vannamei* SOLINVIVIRUS IN PUBLIC TRANSCRIPTOMIC RESOURCES

Carlos Pantoja, Arun Dhar

CASE STUDY: POSTERIOR MIDGUT CAECUM NECROSIS AND SEPSIS IN SPECIFIC PATHOGEN FREE *Penaeus vannamei*

Yan Luo, Calvin Ng, Sage Lyon, Sheree Pagsuyoin, Paul Schofield, Arun Dhar, Yan Luo
ACOUSTIC CHARACTERIZATION OF *Litopenaeus vannamei* FEEDING ACTIVITY IN RESPONSE TO WHITE SPOT SYNDROME CHALLENGE

WEDNESDAY

Craig L. Browdy, Natthinee Munkongwongsiri, Tanatchaporn Utairangsee, Chotităt Luengchaichaweng, Pyae Phyoe Hein, Saw Carris Htun, Loc Tran
EVALUATION OF COMMERCIAL *Penaeus vannamei* LINES FOR TOLERANCE TO CHRONIC *Enterocytozoon hepatopenaei* INFECTION IN A CONTROLLED LABORATORY ASSESSMENT

Marian F. Guerrero

HISTORICAL ANALYSIS OF GLOBAL PREVALENCE AND DIVERSITY OF *Decapod hepanhamaparvovirus* (DHPV) AND DEVELOPING A REAL-TIME PCR ASSAY FOR DETECTING ALL CIRCULATING GENOTYPES

AQUATIC ANIMAL VETERINARY MEDICINE

Wednesday, February 18 1:30 PM - 5:30 PM Versaille 2
Chair: Stephen Reichley

Myron Kebus

STRENGTHENING THE AQUACULTURE VETERINARY WORKFORCE

ALTERNATIVE FEEDS

Wednesday, February 18 1:30 PM - 5:30 PM Champagne 3
Chairs: Wendy Sealey, Tyler Bianchine

Rafael C. Duarte, Joana C. Teixeira, Luísa Marques, Felisa Rey, M. Rosário Domingues, Daniela P. Rodrigues, Ricardo Calado

SALINITY-DRIVEN SHIFTS IN THE FATTY ACID PROFILE OF THE MARINE GAMMARID AMPHIPOD *Gammarus locusta* AND ITS RELEVANCE FOR SUSTAINABLE AQUAFEED PRODUCTION

Christian Larbi Ayisi, Moses Nganwani Tia, Samuel Osei Ayeh, Cecilia Asemah
INCORPORATING PALM KERNEL MEAL, COWPEA HUSK AND SOYBEAN HUSK AS
PROTEIN SOURCES IN CATFISH DIETS: EFFECTS ON GROWTH, HEMATOLOGY
AND INTESTINAL HISTOLOGY

Baba Usman Ibrahim

COMPARATIVE GROWTH ASSESSMENT OF AFRICAN CATFISH *Clarias gariepinus*
FED SWEET POTATO *Ipomea batata* LEAF MEAL AND RICE BRAN AS ALTERNATIVE
FEED MEAL

Omolola Betiku, Caleb Ogunrinde, Jane Davis-Evans, Johnny Grace, Wendy Sealey
NUTRIENT AVAILABILITY FROM HEMP PROTEIN MEAL AND BLACK SOLDIER FLY
IN RUSSIAN *Acipenser gueldenstaedtii* AND SIBERIAN *Acipenser baerii* STURGEON

Herbert E. Quintero Fonseca, Nida Ismat, Mercy L. Pena M., Kevin Fisher,

Paul O'Bryant, Sikandar Hayat

EVALUATING ALOE VERA FOR ENHANCING SOYBEAN MEAL INCLUSION IN
YELLOW PERCH DIETS

Sadiat Onileowo, Peyton Randolph, Aidah Nassiwa, Maryam Haruna, Christian King,
Jacob Loesch, Adebusola Ishola, Moureen Matuha
CONVENTIONAL AND FERMENTED (FERMEX200) SOYBEAN MEALS AS FISHMEAL
REPLACEMENTS IN RAINBOW TROUT *Oncorhynchus mykiss* DIETS

Aakriti Khanal, Magida Tabbara, Allen D. Davis

THE EFFECTS OF REPLACING SOYBEAN MEAL WITH SOY PROTEIN
CONCENTRATE ON THE GROWTH PERFORMANCE OF PACIFIC WHITE SHRIMP
Litopenaeus vannamei REARED IN A BIOFLOC SYSTEM

Babatunde L. Saliu, Jairo A. Gonzalez, Arnold J. Gutierrez, F. Costa Filho,
Melanie A. Rhodes, Nguyen Duy Hoa, D. Allen Davis

GROWTH PERFORMANCE AND PIGMENTATION RESPONSE OF PACIFIC WHITE
SHRIMP *Litopenaeus vannamei* FED GRADED LEVELS OF CORN FERMENTED
COMPLEX AS REPLACEMENT FOR FISHMEAL

Toheeb Falakin, Waldemar Rossi Jr., Kasondra Miller, Boluwatife Elegbede
ASSESSING THE NUTRITIONAL VALUE OF HEMPSEED MEALS IN PRACTICAL
DIETS FOR LARGEMOUTH BASS *Micropterus nigricans*

Mary Jane S. Apines-Amar, Joyce M. Salvilla, Mary Nia M. Santos, Frolan A. Aya,
Joseph B. Binas, Zenith Gaye A. Orozco-Bautista, Jasmine C. Velo, Karl Angelo P. Tenizo
BLACK SOLDIER FLY (BSF) LARVAE: A POTENTIAL ALTERNATIVE PROTEIN
SOURCE FOR TILAPIA *Oreochromis niloticus*

SEA GRANT FY22 MARINE FINFISH JUVENILE PRODUCTION AND EARLY STAGE DEVELOPMENT OF AQUATIC SPECIES PROJECTS

Wednesday, February 18 1:30 PM - 5:30 PM Burgundy

Chairs: Charles Weirich, Mark Rath

Matt Hawkyard, Spencer Kubo, Kevin Stuart, Kara Chuang, Mark Drawbridge
UPDATE ON NUTRITIONAL STRATEGIES FOR IMPROVED LARVAL PRODUCTION
OF MARINE FINFISH WITH AN EMPHASIS ON *Seriola* sp.

Andre P. Seale, Ryan J.A. Chang, Chatham Callan, Jennica Lowell Hawkins, Neil Sims, Bradley Fox, Cherie R.P. Kauahi, Darren K. Okimoto, Darren T. Lerner
RESOLVING IMPEDIMENTS TO CAPTIVE LONGEVITY AND FECUNDITY IN SERIOLID, AMERICA'S MOST SUCCESSFUL OFFSHORE MARINE FISH SPECIES

Ryan Chang, Tyler R. Goodearly, Darren Garriques, Daniel Jackson, Jennica Lowel-Hawkins, Neil A. Sims, Andre P. Seale
DIET MODULATES PHYSIOLOGICAL RESPONSES TO A FRESHWATER DIP AND SUBSEQUENT HANDLING IN LONGFIN YELLOWTAIL *Seriola rivoliana*

Kevin Stuart, Luke Gardner, Ganesh Kumar, Doug Ernst, Mark Drawbridge
MAXIMIZING THE QUANTITY AND QUALITY OF CALIFORNIA YELLOWTAIL *Seriola dorsalis* PRODUCED CONSISTENTLY IN INTENSIVE LARVAL REARING SYSTEMS

Michael Tlusty, Andrew Rhyne, Barbara Bailey, Alice Wynn
CATALYZING MARINE FINFISH AQUACULTURE THROUGH PUBLIC AQUARIUMS

Eric C. Herbst, David L. Berlinsky, Russell J. Borski, David S. Cerino, Robert W. Clark, Michael O. Frinsko, Steven G. Hall, Michael S. Hopper, Linas W. Kenter, Benjamin J. Reading, Kwamena K. Quagrainie, Hanping Wang
SEA GRANT STRIPERHUB: COMMERCIAL STRIPED BASS HATCHERY, FINGERLING PRODUCTION, AND INTENSIVE LARVAL REARING

Steve Eddy, Benjamin Reed
DOMESTICATION AND BREEDING OF LUMPFISH TO ACCELERATE SUCCESSFUL COMMERCIALIZATION AND USE FOR SEA LICE BIOCONTROL IN THE NORTHEAST U.S.

Brittney Lacy, Casey Murray, Oliva Markham, Maribeth Eslava, Travis Knorr, Charles Heyder, Brandon Ray, Amy Wood, Elizabeth Brammer-Robbins, Lena Fitzgerald, Christopher Martyniuk, Andrew Rhyne, Andres Ropicki, Matthew DiMaggio
ADDRESSING BOTTLENECKS AND REFINING COMMERCIAL CULTURE OF THE OCELLARIS CLOWNFISH *Amphiprion ocellaris*

Sergey Nuzhdin, Kelly Deweese, Gary Molano, Scott Lindell
ACCOUNTING FOR MULTIPLE HIGH IMPACT NATURAL VARIANTS TO PRODUCE SPORELESS KELP

WEDNESDAY

Dustin Moss, Bradley Fox, Corrie Wong, John Ginoza, Bell Lin, Linnea Nordli
IMPROVING REPRODUCTIVE PERFORMANCE OF PACIFIC WHITE SHRIMP
Litopenaeus vannamei USING A GENOMICS APPROACH

Christopher Davis, Sydney Avena, Anne Langston Noll, Meredith White, Cody Jourdet, Brian Beal, Brea Salter, Tessa Houston, Sarah Zuidema, Kyle Pepperman, Damian Brady, Timothy Bowden, Jennifer Perry, Sue Ishaq, Erin Grey, Kyle Brennan, Nichole Blackmer, Mark Dixon, Gary Wikfors
“CRACKING THE SHELL”: LESSONS LEARNED FROM A COLLABORATIVE APPROACH TO DEVELOPING HATCHERY PRODUCTION OF THE ATLANTIC SEA SCALLOP *Placopecten magellanicus*

Candice A. Thorstenson, Alan Barton, Carla Schubiger, Ryan S. Mueller, Chris Langdon
PROBIOTIC STRATEGIES TO MITIGATE BACTERIAL-INDUCED MORTALITIES OF PACIFIC OYSTER LARVAE: INSIGHTS FROM HATCHERY TRIALS

FINFISH DISEASES

Wednesday, February 18 1:30 PM - 5:30 PM Champagne 2
Chair: Laura Hoberecht

Elimane Lo, Momath Ndiaye

MEASURES FOR THE PREVENTION OF INFECTIOUS DISEASES OF FISH IN FISH FARMING

Marie Tan, Miles D. Lange, Mark R. Liles, Benjamin R. LaFrentz, Timothy J. Bruce
ENCAPSULATED VACCINE DELIVERY FOR WARMWATER FISH SPECIES

Vitor Silva, Treva Billyard, Samah Algharib, Larry Hanson, Lora Petrie-Hanson
SINGLE-CELL TRANSCRIPTOMICS REVEAL BETA-GLUCAN-INDUCED IMMUNE MODULATION IN HYBRID CATFISH *Ictalurus punctatus* × *I. furcatus*

Sujita Balami, Cynthia C. Ware,

David J. Wise, Larry A. Hanson, Bradley M. Richardson, Caitlin E. Older, Taylor I. Heckman, Noor Ul-Huda, Divya Rose, Jing Huang, Ashmita Poudel, Abby Hawkins, Ayushma Sharma, Josh Bumgarner, Benjamin R. LaFrentz, Esteban Soto, Matt J. Griffin

IDENTIFICATION OF POTENTIAL LIVE-ATTENUATED VACCINE CANDIDATES AGAINST *Edwardsiella piscicida* IN CATFISH

Marco Belo, Mayumi Aracati, Letícia Rodrigues, Susana Oliveira, Romário Rodrigues, Camila Carlino-Costa, Dalia Machado, Mary Foglio, Paula Calabria, Patrícia Clissa, Luiz Pereira, Jorge Galindo-Villegas

IMMUNOPHARMACOLOGICAL STUDY OF ORAL TREATMENT WITH *Artemisia annua*, ARTEMISININ, AND ARTEMETHER IN NILE TILAPIA DURING INFECTION BY *Aeromonas hydrophila*

Sujita Balami, Cynthia C. Ware, David J. Wise, Divya Rose, Fernando Y. Yamamoto, Larry A. Hanson, Bradley M. Richardson, Caitlin E. Older, Josh Bumgarner, Ayushma Sharma, Noor Ul-Huda, Taylor I. Heckman, Benjamin R. LaFrentz, Esteban Soto, Matt J. Griffin

EVALUATING AN ORALLY DELIVERED BIVALENT VACCINE AGAINST EDWARDSIELLOSIS IN CHANNEL CATFISH *Ictalurus punctatus* WITH b-GLUCAN SUPPLEMENTATION

Kaitlyn O'Neil, Shawn Coyle, Shane Ramee, Cortney Ohs

EFFICACY OF AQUI-S®20-E (10% EUGENOL) TO LIGHTLY SEDATE FOUR SPECIES OF FRESHWATER AND MARINE WARMWATER FINFISH AT PRACTICAL LOADING DENSITIES FOR DURATIONS UP TO 5 HOURS

Connor Schwepe

MITIGATION OF BACTERIAL COLDWATER DISEASE IN SALMONIDS: ONGOING EFFORTS AT IMPLEMENTING HATCHERY SCALE PROTOCOLS

Yogesh Chander, Alyssa Hassinger, James Tuttle, Anita Kelly, Mark Liles, Timothy Bruce, David Mead

CHROMALAMP: A NOVEL MOLECULAR TOOL FOR RAPID DETECTION OF FISH PATHOGENS

Joe Tomasso, Ishini A. Appuhami

AN EVALUATION OF THE VETSCAN 2 (ABAXIS, INC.) BLOOD ANALYSIS SYSTEM FOR USE WITH CHANNEL CATFISH *Ictalurus punctatus* SERUM

Amanda Jones, Delbert Gatlin, Gabriel Bake, Blaine Suehs, Haitham Mohammed
DIETARY INCLUSION OF BLACK SOLDIER FLY LARVAE REARED ON DIVERSE FISH BY-PRODUCT SUBSTRATES IMPROVES GROWTH AND DISEASE OUTCOMES IN HYBRID STRIPED BASS CHALLENGED WITH *Streptococcus iniae*

Ozgur Erdogan, Ty Werdel, Haitham H. Mohammed

THE IMPACT OF SALINIZATION GRADIENT ON GENOME-WIDE EXPRESSION DYNAMICS IN *Aeromonas hydrophila*

FLORIDA FINFISH AQUACULTURE COALITION

Wednesday, February 18 1:30 PM - 5:30 PM Loire
Chair: Maddi Badiola

Join the Florida Finfish Aquaculture Coalition to discuss key aquaculture topics important to marine aquaculture, and aquaculture within the state of Florida.

Michael Scharz, Associate Director, Virginia Seafood AREC

ENHANCING U.S. AQUACULTURE COMPETITIVENESS THROUGH VERTICAL
VALUE-ADD PROCESSING, A CRITICAL ECONOMIC VIABILITY VERTICAL
INTEGRATION CONSIDERATION FOR U.S. AQUACULTURE PRODUCERS

Kathleen Hartman, Staff Veterinarian, Kennebec River Biosciences

STARTING AT THE BEGINNING: THE IMPORTANCE OF HATCHERY HEALTH FOR
MARINE AQUATIC LIVESTOCK HEALTH MANAGEMENT

Adriana Artiles, Business Development Manager for Genetics, Center for Aquaculture
Technologies

HARNESSING EFFICIENT GENETIC IMPROVEMENT IN TILAPIA TO MAXIMIZE
ECONOMIC RETURN

Joe Cardenas, Chief Business Development Officer, Telchini Energy Technologies
SELLING AN AQUACULTURE BUSINESS

Amrit Bart, Research Director, Soy Alliance & Professor of Animal & Diary Science,
University of Georgia
SOY ALLIANCE

Maxim Slaten, General Manager, Aquasafra
REIMAGINING ECONOMICS IN TILAPIA AQUACULTURE

John Stieglitz, Research Associate Professor, Rosenstiel School of Marine,
Atmospheric, and Earth Science
UNLOCKING MARINE FINFISH AQUACULTURE POTENTIAL IN FLORIDA AND
SOUTHEASTERN UNITED STATES

Rick Barrows, F3
FUTURE OF FISH FEEDS

Mia Avril
TBA

Leo Ibarra, Assistant Professor of Forest, Fisheries and Geomatic Sciences, The
Whitney Laboratory, University of Florida
WHAT IF SNOOK DIDN'T SUCCEED BECAUSE OF TECHNIQUE...BUT BECAUSE OF
HOW WE THINK?

ROUNDTABLE

THURSDAY, February 19

PLEASE NOTE: PRESENTATION TIMES

AA2026 presentations for each session are listed in the order of presentation when the Directory goes to press. The presentation times have been omitted because there are many late changes after the Directory is printed. The AA2026 Conference APP will show the presentation times and will be updated during the conference as changes are received. Late cancellations will be marked “Cancelled” in the APP. The AA2026 APP will have the most current version of the Directory and will better assist attendees in planning their schedules.

Friday Break 10:00 – 11:00

Friday Lunch 12:30 – 1:30

THURSDAY

AQUAPONICS / HYDROPONICS

Thursday, February 19 8:30 AM - 12:30 PM Champagne 1

Chairs: Michael Ben Timmons, JD Sawyer

Kamal Gosh, Tremar Ivey, Ander Compere, Sebastian Moreno, Isis Williams, Leonard Kibet, Jovan Jones

INTEGRATED FARMING FOR SUSTAINABLE CATFISH AND LEAFY GREEN PRODUCTION IN AQUAPONICS SYSTEM: IMPLICATIONS FOR SMALL-SCALE PRODUCERS

Zarin Subah, Jae Hyeon Ryu

DEVELOPING ORGANIC COLDWATER AQUAPONICS FOR CLIMATE-RESILIENT FOOD PRODUCTION: A SYSTEM DYNAMICS APPROACH

R. Charlie Shultz

UPDATE ON AQUACULTURE AND AQUAPONIC GRANTS HELPING SANTA FE COMMUNITY COLLEGE TRAIN THE CONTROLLED ENVIRONMENT AGRICULTURE WORKFORCE OF THE FUTURE

Jemuel Doctolero, Joya Saha, Timothy Allen Rice, Aya Hussain, Zhi Zhou, Halis Simsek, Jen-Yi Huang, Paul Brown

INTEGRATION OF A REVOLVING ALGAL BIOFILM IN COUPLED AQUAPONICS ENHANCES *Chlorella vulgaris* BIOMASS QUALITY AND PRODUCTIVITY

Ze Zhu, Amit Gross, Paul Brown

COUPLING ANAEROBIC DIGESTION WITH AQUAPONICS TO PROMOTE THE CIRCULAR ECONOMY IN ARID ZONES

George Brooks Jr.

ENHANCING POST-DISASTER FOOD SECURITY IN THE UNITED STATES
THROUGH AQUAPONICS

Rachel E. Nehrmeyer, Matthew S. Recsetar

PROMOTING NUTRIENT MINERALIZATION OF SOLID FISH WASTE FOR
ENHANCED PLANT FERTILIZATION IN AQUAPONICS

Lauren Bauerlein, Matthew Recsetar, David Dong

LEVERAGING AQUAPONIC MICROBES TO ENHANCE WATER AND NUTRIENT
UPTAKE IN *Cannabis sativa*

Cori Byrge

BRIDGING AQUACULTURE AND AGRICULTURE: NATURE INSPIRED SUBSTRATES
FOR NUTRIENT RECYCLING AND SUSTAINABLE WATER QUALITY MANAGEMENT
IN RECIRCULATING AQUACULTURE SYSTEMS

Terrance Smith, Uthpala Padeniya, Brandy Phipps, Brandon McFadden, Manih Boyd,
Brian Kowalkowski

SUSTAINABLE AQUAPONICS TO ENSURE FOOD SOVERINGTY AND COMMUNITY
BUILDING FOR THE MENOMINEE PEOPLE

John Prater, Daniel Wells, Daulton Messer

POTENTIAL OF A SUBSTRATE-BASED SPLIT-ROOT HYDROPOONICS SYSTEM FOR
MITIGATING SALINITY STRESS IN TOMATOES AT BRACKISH WATER SALINITY
LEVELS

EDUCATION EXTENSION TECHNOLOGY TRANSFER

Thursday, February 19 8:30 AM - 5:00 PM Concorde C

Chairs: David Cline, Angela Caporelli

Misti Stelljes

RAISING THE BAR (AND THE FISH): PREPARING THE NEXT GENERATION OF
AQUACULTURE PROFESSIONALS

Amy Schrank, Donald R. Schreiner, Terra Bowling, John Brawley, Stuart Carlton,
Barbara I. Evans, Emma Hauser, Sharon Moen, Elliot Nelson, Zach Nemec,
Stephanie Otts, Kwamena Quagrainie, Sean Rafferty, Lauren N. Stigers,
Titus Seilheimer, Amy Shambach, Kieran Smith, Marie E. Thoms, Barry Udelson,
Nicole Wright

THE GREAT LAKES AQUACULTURE COLLABORATIVE (GLAC):
ADVANCING AQUACULTURE LITERACY

Stephanie Showalter Otts, Emily Riewestahl, Terra Bowling, Sherry Larkin,

Charles Sidman

FROM ORDINANCES TO OPPORTUNITIES: A TOOLKIT FOR LOCAL AQUACULTURE POLICY IN THE U.S. SOUTHEAST

Lauren N. Stigers, Elliot Nelson, Romi Novriadi

ENHANCING AQUACULTURE LITERACY THROUGH 360-VIRTUAL REALITY

Carissa Maurin, Amanda Dickes

EXPANDING AWARENESS OF AQUACULTURE AS A VIABLE STEM CAREER FOR MAINE'S YOUTH

Tiffany Wood Mahler, Jonathan van Senten, Michael Schwarz

CULTIVATING THE FUTURE: BUILDING THE NEXT GENERATION OF THE AQUACULTURE WORKFORCE THROUGH K-12 EDUCATION AND WORKFORCE DEVELOPMENT

Alyssa MacDonald, Corey Adler

BRIDGING THE GAP: ASSESSING WORKFORCE DEVELOPMENT NEEDS FOR HAWAII'S AQUACULTURE INDUSTRY THROUGH INDUSTRY AND EDUCATION STAKEHOLDER PERSPECTIVES

Michelle L. Walsh

JOINT PROFESSIONAL AQUACULTURIST CERTIFICATION: STANDARDIZING AND RECOGNIZING EXCELLENCE IN THE AQUACULTURE WORKFORCE

Steeve Pomerleau, Brittany Palm-Flawd

EDUCATING TOMORROW'S AQUACULTURE WORKFORCE: A FLIPPED, HANDS-ON, AND INDUSTRY-CONNECTED TRAINING MODEL AT BELLINGHAM TECHNICAL COLLEGE

Maya Pelletier, Kristel Anuszewski, Colleen Maker, Anne Langston Noll

SHELL-EBRATE! BIVALVE EDUCATION FOR K-12 CLASSROOMS

Maya Pelletier, Chris Davis, Antoine Mier, Nichole Sawyer, Denise Cilley, Anne Langston Noll

BUILDING A ROBUST PIPELINE TO AQUACULTURE CAREERS IN MAINE THROUGH WORKFORCE DEVELOPMENT AND EDUCATION INITIATIVES

Elliot Nelson

AQUACULTURE IMPACTS THROUGH K-12 TEACHER TRAININGS: EXAMPLES AND OUTCOMES

Kenneth Thompson, Carl Webster, Avinash Tope, Janelle Hager, Leo Fleckenstein, Dorcas Lukwesa

HANDS-ON CLASSROOM AQUAPONICS PROJECTS IMPROVE PERCEPTIONS OF STEM DISCIPLINES AND CAREERS AMONG URBAN HIGH SCHOOL STUDENTS

Kevin Fitzsimmons, W. Boeing, R.C. Shultz

UPDATE 2026 – NEXT GEN USDA – PREPARING HISPANIC AND OTHER UNDERREPRESENTED STUDENTS IN FISHERIES AND AQUACULTURE

Christian Brayden, Carissa Maurin

BEST MANAGEMENT PRACTICES (BMPS), OCCUPATIONAL STANDARDS, AND IMPROVING ON-FARM SAFETY: ADVANCING THE SECTOR AS PER MAINE'S OYSTER FARMERS

Caldonia Carmello, Annie Schatz, Jenna Clark, Fredrika Moser

LESSONS LEARNED FROM COLLABORATIONS BETWEEN SEA GRANT EXTENSION AND FEDERAL PARTNERS

Leticia Fantini Hoag, Dariano Krummenauer, Wilson Wasielesky, Geraldo Fóes,

Luis H. Poersch, Alessandro Cardozo, Bianca De Oliveira Ramiro, Luke A. Roy

BUILDING A BRIDGE FOR EXTENSION AND RESEARCH PROGRAMS IN SHRIMP AQUACULTURE BETWEEN AUBURN UNIVERSITY AND FEDERAL UNIVERSITY OF RIO GRANDE

Herbert E. Quintero Fonseca, Amy Shambach

FISH FARM TOURS AS A LEARNING TOOL – YEAR 2

Kirk Manson, Shelli Manson, Mercy L. Pena M., Herbert E. Quintero F.

LARGEMOUTH BASS (LMB) PRODUCTION IN A FLOATING IN-POND RACEWAY SYSTEM IN OHIO

Jonathan van Senten, Carole Engle, Quentin Fong, Melissa Good

INTEGRATED RESEARCH AND EXTENSION TO MEET INDUSTRY NEEDS:

AN EXAMPLE PROJECT FROM THE WESTERN REGIONAL AQUACULTURE CENTER

William Decker, John M. Boyle

TECHNOLOGY REVIEW FOR MAINTAINING OPTIMUM DISSOLVED OXYGEN LEVELS

Dave Love, Elizabeth Nussbaumer, Allie Wainer

OCCUPATIONAL SAFETY AND WORKER WELLBEING IN THE US AQUACULTURE, COMMERCIAL FISHING, AND SEAFOOD PROCESSING SECTORS

SEA GRANT FY22 AQUACULTURE SUPPLEMENTAL FUNDING PROJECTS

Thursday, February 19 8:30 AM - 5:00 PM Concorde A
Chairs: Charles Weirich, Mark Rath

Jing Huang, Charles Mischke, Caitlin Older, Matt Griffin, Heather Jordan, Peter Allen, Penelope Goodman, Grant Reifers, Fernando Yamamoto

INVESTIGATING ZOOPLANKTON BIOENCAPSULATION AS A PROBIOTIC DELIVERY METHOD FOR CATFISH FRY

Barry Udelson

ONGOING EFFORTS TO UNIFY AND SUPPORT THE NEW YORK AQUACULTURE INDUSTRY

Rob Hudson, Azure Cygler, Jennifer McCann

ADVANCING SMART AND SUSTAINABLE AQUACULTURE GROWTH IN RHODE ISLAND

Michael R. Allen, Jenna Clark, Christopher Flight, Michael Kalinowski, Annie Schatz, Fredrika C. Moser

EXPANDING AQUACULTURE CAPACITY THROUGH INTEGRATED RESEARCH, EDUCATION, AND OUTREACH AT MARYLAND SEA GRANT

THURSDAY

David P. Crisostomo

DEVELOPMENT OF AQUACULTURE INDUSTRY IN GUAM POST COVID

Thomas Bliss, Justin Manley, Mark Risse

IMPROVING THE LIVES OF GEORGIA CITIZENS THROUGH INVESTMENTS IN AQUACULTURE

Angee Doerr, Alex Marquardt, Sam Chan, Karina Nielsen

OREGON SEA GRANT: STRENGTHENING OREGON'S AQUACULTURE LANDSCAPE THROUGH SCIENCE, COLLABORATION, AND COMMUNITY ENGAGEMENT

Darren Okimoto, Bradley Fox, Anne Rosa, Cherie Kauahi, Darren T. Lerner,

Maya Walton

FY 2022-2023 HAWAII SEA GRANT AQUACULTURE SUPPLEMENTAL ACTIVITIES

Amy Schrank, Donald R. Schreiner, Kieran Smith

SUPPORTING A SUSTAINABLE AQUACULTURE INDUSTRY IN MINNESOTA

Sharon Moen, Tyler Firkus, Emma Hauser, Titus Seilheimer, Dong Fang Deng

SEA GRANT'S ROLE IN WISCONSIN FOOD-FISH AQUACULTURE: LINKING CULTURE, CONSUMERS AND RESEARCH

Margaret Lawrence, Amy M. Shambach, Kwamena K. Quagrainie, J. Stuart Carlton
KNOW YOUR H2O PROGRAM: FOR FARMERS AND EDUCATORS

Jessica Whitney, Melissa Good, Ginny Eckert
SHELL-ABRATING MARICULTURE: SUPPORTING ALASKA'S INDUSTRY THROUGH
THE ALASKA MARICULTURE RESEARCH AND TRAINING CENTER

Emily Riewestahl, Hayley Lemoine, Sydney Williams, Angela Collins, Laura Tiu,
Sherry Larkin
COMMUNICATION IN ACTION: HOW STUDENT FELLOWSHIPS ARE SHAPING THE
FUTURE OF AQUACULTURE POLICY AND PERCEPTION

Amalia Almada, Heather Fenney, Melo Lemus, Maira Quintanilla, Diane Kim,
Linda Chilton, Maria Madrigal, Anna Joo Kim, Nathan Churches
BRINGING THE "SEA" TO SOUTH CENTRAL LOS ANGELES THROUGH THE SOUTH
CENTRAL SUSTAINABLE SEAFOOD FEST

Jaclyn Robidoux
THE MAINE OYSTER TRAIL: A SEA-GRANT SUPPORTED MODEL FOR INNOVATION
IN AQUACULTURE TOURISM

Tessa Getchis, Michael Gilman, David Carey
RETURNING LONG ISLAND SOUND OYSTER BEDS TO THEIR FORMER GLORY:
ONE SHELL AT A TIME

Robert Vincent, Danny Badger, Andrew Bennett, Michael Triantafyllou
FINDING SEAFOOD MARKET EXPANSION OPPORTUNITIES AND BUILDING
OYSTER-BAG FLIPPING ROBOTS TO IMPROVE EFFICIENCY AND SAFETY OF
FARM MANAGEMENT

Arun Venugopalan, Joshua Reitsma, Abigail Archer, Rachel Hutchinson,
Marta Gomez-Chiarri, Jaypee Samson, Roxanna Smolowitz, Abigail K Scro,
Matthew Charette, Rebecca Gast
NOVEL DUPLEX QPCR ASSAY DEVELOPMENT AND VALIDATION FOR EARLY
DETECTION OF JUVENILE OYSTER DISEASE (JOD)

Christopher Hollenbeck, Allison R. Weber, Alexandra M. Good, Joseph L. Matt,
David S. Portnoy, Keisha D. Bahr
FINE-SCALE GENETIC MONITORING OF EASTERN OYSTER POPULATION
STRUCTURE IN TEXAS FOR AQUACULTURE, FISHERIES MANAGEMENT, AND
RESTORATION

Ashleigh Epps, Julieta Martinelli, Rana Brown, Nicole Naar, Kate Little, Sanpisa Sritrairat
RAPID RESPONSE NETWORK FOR CLIMATE-RELATED MASS-MORTALITY
EVENTS IN WASHINGTON STATE AND THE WILLAPA GRAYS HARBOR ESTUARY
COLLABORATIVE

Simona Augyte

SINK OR SWIM: DEVELOPING MACROALGAE AQUACULTURE IN SOUTHERN CALIFORNIA

Steve Jones, Elizabeth Harvey

PHYTOPLANKTON AND HALOPHYTE RESEARCH TO ENHANCE LOCAL MARINE AQUACULTURE IN NEW HAMPSHIRE

Russell Grice, Andrea M. Tarnecki

THE COMMERCIAL OYSTER AQUACULTURE SECTOR TRAINING (COAST) PROGRAM: PHASES I & II

THURSDAY

SHELLFISH AQUACULTURE

Thursday, February 19 8:30 AM - 5:00 PM Versaille 3

Chairs: Matthew Gray, Bill Walton

Andrea Tarnecki, Greer Handley, Angelo DePaola, Asim Bej

MICROBIAL INVESTIGATIONS INTO SUDDEN UNUSUAL MORTALITY SYNDROME

Bianca Narvaez, Jeffrey Warner, Noel Novelo

A REVIEW OF CRYOPROTECTANTS, AND PROTOCOL DEVELOPMENT FOR FRESHWATER MUSSEL *Unionidae* SPERM PRESERVATION PROPOSAL

Jaypee Samson, Kirsten Quay, David Rowley, Marta Gomez-Chiarri

DEVELOPMENT OF A MULTI-STRAIN PROBIOTIC FORMULATION TO IMPROVE BIVALVE LARVAL RESILIENCE AGAINST HATCHERY PATHOGENS

Jaypee Samson, Shannon Murphy, Alberto Paz, Nic Fisk, Joshua Reitsma, Roxanna Smolowitz, Marta Gomez-Chiarri

TRANSMISSIBLE CANCER IN HARD CLAMS *Mercenaria mercenaria*: SINGLE-CELL ANALYSIS REVEALS MOLECULAR MECHANISMS OF DISSEMINATED NEOPLASIA

Michael Torselli, Abigail K. Scro, Rebecca J. Gast, Jaypee Samson,

Shannon E. Murphy, Marta Gomez-Chiarri, Roxanna M. Smolowitz, Galit Sharon

DEVELOPMENT OF A NEW MOLECULAR TECHNIQUE TO DIAGNOSE PRESENCE AND SEVERITY OF HEMOCYTIC NEOPLASIA IN HARD-SHELLED CLAMS *Mercenaria mercenaria*

Katyanne Shoemaker, Genevieve Bernatchez, Shannon Meseck, Matthew Poach, Emory Barrett, Matthew Hare

GROWTH AND SURVIVAL OF TWO POPULATIONS OF ATLANTIC SURFCLAMS FROM HATCHERY TO HARVEST

Ivy Jones, Elena K. Barrada, Christopher W. Jones, Christopher M. Hollenbeck
NUTRITIONAL SUPPLEMENTATION OF *Crassostrea virginica* SPAT WITH
Phaeodactylum tricornutum FOR HATCHERY PRODUCTION IN TEXAS

Ellis Chapman, Toi Tippin

OYSTER RESOURCE AND RECOVERY CENTER AT HARTE RESEARCH INSTITUTE
AT TEXAS A&M UNIVERSITY - CORPUS CHRISTI: OYSTER FARMING WORKFORCE
DEVELOPMENT AND FIELD-BASED PAID INTERNSHIPS

Russell Grice

OYSTER FARMING – IS IT FOR YOU?

Andrea Tarnecki, Katlyn Parks, Scott Rikard

STRATEGIES FOR OPTIMIZING EASTERN OYSTER *Crassostrea virginica* NURSERY
PRODUCTION: REFRIGERATION AND SETTING DENSITY

Matt Parker, Don Webster, Becky Thur, Brian Callam
MARYLAND OYSTER AQUACULTURE IN THE MODERN ERA

Matthew LaGanke, Adriane Michaelis, Andrew Scheld, William Walton
FROM STRESS TO SOLUTIONS: IDENTIFYING OPPORTUNITIES FOR INNOVATION
THROUGH A NATIONWIDE NEEDS ASSESSMENT OF SHELLFISH FARM
MANAGERS

Marta Gomez-Chiarri, Rob Hudson, Shannon E. Murphy, Jaypee S. Samson,
Kayla Austin, Matthew Bertin, David Bushek, Jacob Cram, Matthew Gray
A CONSORTIUM EFFORT TO IDENTIFY THE CAUSES OF LARVAL CRASHES IN
BIVALVE HATCHERIES IN THE ATLANTIC COAST OF THE USA: OBSERVATIONS
FROM THE 2024 SAMPLING SEASON

Rob Hudson, Matthew Gray, Marta Gomez-Chiarri

THE STATUS OF BIVALVE SHELLFISH HATCHERIES ON THE ATLANTIC COAST
OF THE UNITED STATES: A REPORT FROM THE BIVALVE HATCHERY HEALTH
CONSORTIUM

Sean Bignami, Fernando Campero, Kelly Stromberg, Emelyah Banzon,
Desiree De La Riva, Diane Kim, Nathan Churches, Nancy Caruso, Ian Jacobson
HARNESSING THE LIFE CYCLE OF THE NATIVE CALIFORNIA CLAM *Tivela stultorum*
FOR COMMERCIAL AQUACULTURE PRODUCTION

Coral Tolman, Jordan Hollarsmith, Krystal Renta

SILT HAPPENS: IMPACTS OF GLACIAL SILT ON PACIFIC OYSTER *Crassostrea gigas*
CLEARANCE RATES AND FILTRATION EFFICIENCY

Matthew Gray, Jeffrey Cornwell, Cindy Palinkas, Owen Skirtich

INTERACTIONS BETWEEN SUBMERGED AQUATIC VEGETATION AND FLOATING
AQUACULTURE IN THE MESOHALINE PORTION OF CHESAPEAKE BAY

Carissa Maurin, Aaron Whitman

UNLOCKING THE POTENTIAL OF *Mytilus edulis* AQUACULTURE THROUGH MUSSEL BED MAPPING AND INDUSTRY INSIGHTS IN MAINE

Rachel French, Melissa Good

F-“OYSTER”-ING CONNECTIONS: REIMAGINING THE CENTRAL LITERATURE FOR ALASKA’S SHELLFISH FARMING INDUSTRY THROUGH COLLABORATION WITH LOCAL FARMERS

Michael Coogan, Michael Doherty, Alex Rakowski, Erich Berghahn, Michael Chambers, David Fredriksson, Michael Doherty, Alex Rakowski, Erich Berghahn, Michael Chambers, David Fredriksson

COMMERCIALIZATION OF BOTTOM SEA SCALLOP AQUACULTURE IN THE GULF OF MAINE: DEVELOPMENT OF SPAT COLLECTION AND GROWOUT PROTOCOLS

Miya Khoo, Isaac Tetel, Marjorie Oleksiak, John Stieglitz

GENOMIC CONNECTIVITY AND ENVIRONMENTAL DRIVERS OF RESILIENCE IN FLORIDA’S EASTERN OYSTER *Crassostrea virginica*

THURSDAY

INTEGRATED MULTI-TROPHIC AQUACULTURE (IMTA)

Thursday, February 19 8:30 AM - 12:30 PM Bordeaux

Chairs: Michael Chambers, Michael Coogan

Michael Chambers, Michael Coogan, Michael Doherty, Erich Berghahn, Gunnar Ek, David Fredriksson

STEPS TO GENERATE A SMALL SCALE, OCEAN BASED, IMTA FARM FOR COASTAL COMMUNITIES

Kieley Hurff

PROACTIVE COORDINATION: EFFICIENTLY NAVIGATING THE PERMITTING PROCESS FOR A NOVEL IMTA DEMONSTRATION PROJECT IN ALABAMA STATE WATERS

Longhuan Zhu, Zachary Davonski, Md. Mamun Patwary, Igor Tsukrov, Michael Chambers, David Fredriksson

HIGH-FIDELITY MODELING OF AN INTEGRATED MULTI-TROPHIC AQUACULTURE SYSTEM FOR THE GULF COAST OF THE U.S. WITH AN AI-AIDED DESIGN SYSTEM

Reginald Blaylock, Angelos Apeitos, Megan Gima, Egan Rowe, Michael Chambers, Ashley McDonald

INTEGRATED MULTI-TROPHIC AQUACULTURE IN THE NORTHERN GULF OF AMERICA – CULTURE OPERATIONS

Zachary Davonski, Michael Chambers, Erich Berghahn, Gunnar Ek, Ashley McDonald, Samantha Smith, Jackson Stogner, Angelos Apeitos, Andrew Gima
FIELD ASSEMBLY AND DEPLOYMENT OF AN INTEGRATED MULTITROPHIC AQUACULTURE SYSTEM IN THE GULF OF AMERICA

John Stieglitz, Andrew Ray, Alexandra Guerra, Sagun Chhetri, Ronald Hoenig
OPTIMIZING INTEGRATED MULTI-TROPHIC AQUACULTURE (IMTA) APPLICATIONS FOR MARINE FINFISH PRODUCTION IN THE UNITED STATES

Stephen Jones, Elizabeth Martin, Randi Foxall, Michael Chambers, Sarah Young, Cheryl Whistler

TEMPORAL SHIFTS OF THE MICROBIAL COMMUNITIES IN SHRIMP *Litopenaeus vannamei* INTEGRATED MULTI-TROPHIC AQUACULTURE SYSTEMS

Ricardo Calado

SELECTING EXTRACTIVE SPECIES TO DEVELOP AN INTEGRATED MULTI-TROPHIC AQUACULTURE FRAMEWORK – MIMICKING A COASTAL LAGOON FOOD WEB

Maryam Haruna, Kelvin M.B. Lacerda, Aidah Nassiwa, Austin D. Ingram, Skylar A. McDuffee, Makayla C. Ward, Shane M. Kemp, Octavio J. Silva, Andrew R. Coursey, Dallas L. Flickinger

AQUATIC NITROGEN CYCLE IN THE GROW-OUT OF PHASE II SUNSHINE BASS AND GIANT RIVER PRAWNS FARMED IN MONOCULTURE AND INTEGRATED MULTI-TROPHIC AQUACULTURE SYSTEMS IN EARTHEN PONDS

Christian A. King, Kelvin M.B. Lacerda, Aidah Nassiwa, Maryam Haruna, Austin D. Ingram, Skylar A. McDuffee, Makayla C. Ward, Shane M. Kemp, Octavio J. Silva, Andrew R. Coursey, Dallas L. Flickinger

AQUATIC CARBON CYCLE IN THE GROW-OUT OF PHASE II SUNSHINE BASS AND GIANT RIVER PRAWNS FARMED IN MONOCULTURE AND INTEGRATED MULTI-TROPHIC AQUACULTURE SYSTEMS IN EARTHEN PONDS

Aidah Nassiwa, Kelvin M.B. Lacerda, Maryam Haruna, Christian A. King, Austin D. Ingram, Skylar A. McDuffee, Makayla C. Ward, Shane M. Kemp, Octavio J. Silva, Andrew R. Coursey, Dallas L. Flickinger

AQUATIC PHOSPHORUS CYCLE IN THE GROW-OUT OF PHASE II SUNSHINE BASS AND GIANT RIVER PRAWNS FARMED IN MONOCULTURE AND INTEGRATED MULTI-TROPHIC AQUACULTURE SYSTEMS IN EARTHEN PONDS

THE ANNUAL U.S. MARINE FINFISH AQUACULTURE

Thursday, February 19 8:30 AM - 5:00 PM Champagne 2

Chair: Martin Riche

John Stieglitz, Ronald Hoenig, Luiz Anchieta da Silva, Carlos Tudela, Daniel Benetti
ADVANCING MARINE FINFISH AQUACULTURE IN THE UNITED STATES THROUGH
STRATEGIC SPECIES PRIORITIZATION AND MARKET DRIVEN DEVELOPMENT

Khanh Nguyen, Leonardo Ibarra-Castro, D. Allen Davis, Indira Torress
EVALUATION OF SULFUR AMINO ACID REQUIREMENTS THROUGH DIETARY
TAURINE AND METHIONINE LEVELS ON GROWTH PERFORMANCE OF JUVENILE
RED SNAPPER *Lutjanus campechanus*

Trinh H.V. Ngo, Marty Riche, Timothy J. Bruce, D. Allen Davis
DIETARY ARGININE REQUIREMENT OF JUVENILE FLORIDA POMPANO *Trachinotus carolinus*

Khanh Nguyen, Ishini Anuthara, Delbert M. Gatlin III, D. Allen Davis
EFFECTS OF DIETARY GLYCINE SUPPLEMENTATION LEVELS ON GROWTH
PERFORMANCE, PLASMA GLYCINE CONCENTRATIONS, AND SERUM
BIOCHEMICAL PARAMETERS OF GROWOUT-STAGE RED DRUM *Sciaenops ocellatus*

Fernando Paredes, Magaleate Kostelnik, Christopher Robinson, Li Sun Chin, Paul Wills,
Nicholas Romano
INFLUENCE OF FEEDING STRATEGIES ON GROWTH PERFORMANCE, BODY
COMPOSITION, AND HISTOMORPHOLOGY OF LIVER AND INTESTINE IN
JUVENILES OF ATLANTIC CROAKER *Micropogonias undulatus*

Kevin Stuart, Michael Rust, Mark Drawbridge
PROGRESS ON SWIM BLADDER INFLATION IMPROVEMENTS FOR CALIFORNIA
YELLOWTAIL *Seriola dorsalis* LARVAE

Li Sun Chin, Benjamin Panitz, Jacob Morris, Juan Fernando Paredes, Kevin Stuart,
Mark Drawbridge, Paul Wills
GOOD EGG OR BAD EGG? RAPID ASSESSMENT OF OMEGA-3 FATTY ACID WITH
CHEMOMETRIC MODELING

Karen Carvajal, Joseph Ryan, Leonardo Ibarra-Castro, Oscar Monroig, Lucas Gutierrez,
Mark Martindale
CHARACTERIZATION OF DESATURASE ACTIVITY IN THE LC-PUFA BIOSYNTHESIS
PATHWAY OF THREE COMMERCIALLY IMPORTANT AND PROMISING MARINE
AQUACULTURE SPECIES IN FLORIDA: RED DRUM *Sciaenops ocellatus*, RED
SNAPPER *Lutjanus campechanus* AND COMMON SNOOK *Centropomus undecimalis*

THURSDAY

Leonardo Ibarra-Castro, Josué López-Cardiel

ENERGETIC CONSTRAINTS AND ONTOGENETIC JUMPS: RETHINKING RED SNAPPER LARVICULTURE THROUGH BLAXTER AND BALON

Carlie Perricone, Paul Wills

PAVING THE WAY FOR GENOMIC SELECTION IN FLORIDA POMPANO *Trachinotus carolinus* AQUACULTURE WITH THE FIRST REFERENCE-QUALITY GENOME

Samuel A. May, John Buchanan, Klara Verbyla, Adriana Artiles, Carlos Pulgarin,

Marcos de Donato, Simon Hill

CHOOSING THE RIGHT BREEDING PROGRAM: COMPARATIVE STRATEGIES FOR GENETIC IMPROVEMENT

BRINGING AQUACULTURE OPPORTUNITY AREAS TO U.S. WATERS

Thursday, February 19 8:30 AM - 12:30 PM Versaille 2

Chair: Kristine Cherry

Phaedra Doukakis-Leslie

OVERVIEW OF AQUACULTURE OPPORTUNITY AREAS AND THE IDENTIFICATION PROCESS

Marcy Cockrell, Kenneth Riley, Kristine Cherry

NOAA SCIENCE FOR ADVANCING OFFSHORE AQUACULTURE: IDENTIFYING AQUACULTURE OPPORTUNITY AREAS

Andrew Richard, Kieley Hurff

IDENTIFYING AQUACULTURE OPPORTUNITY AREAS IN FEDERAL WATERS OF THE GULF OF AMERICA: A FOUNDATION FOR OFFSHORE AQUACULTURE DEVELOPMENT AND DOMESTIC SEAFOOD PRODUCTION IN U.S. WATERS

Celia Barroso

IDENTIFYING AQUACULTURE OPPORTUNITY AREAS IN FEDERAL WATERS OFF OF SOUTHERN CALIFORNIA: A FOUNDATION FOR OFFSHORE AQUACULTURE DEVELOPMENT IN U.S. WATERS

Alicia Bishop

INNOVATIVE ADAPTATIONS TO ALASKA AOA PROCESS

Christopher Schillaci, Drew Resnick, Isaac Keohane, Meghan Balling, Gretchen Bath, Jessica Carlton, Jessica Couture, Anna Verrill, Jasmine Papas, Breanna Xiong, James Morris Jr.

AQUACULTURE OPPORTUNITY ATLAS FOR THE GULF OF ALASKA

Isaac Keohane, Drew Resnick, Jessica Couture, Christopher Schillaci, James A. Morris Jr.

UNDER THE HOOD: HOW DATA DRIVES THE ALASKA AOA SUITABILITY MODEL

Drew Resnick, Isaac Keohane, Anna Verrill, James Morris

BEYOND THE PRINT ATLAS: LEVERAGING INTERACTIVE DIGITAL TOOLS FOR DATA-DRIVEN AQUACULTURE SITING IN ALASKA

Isaac Keohane, Jessica Carlton, Drew Resnick, Jessica Couture, James A. Morris Jr. PRECISION SITING: SPATIAL OPTIMIZATION TO INFORM AQUACULTURE SUITABILITY MODELING

Megan Ewald

PUBLIC ENGAGEMENT IN THE AQUACULTURE OPPORTUNITY AREA PROCESS

Panel C&A

MORE IN-DEPTH DISCUSSION, QUESTIONS FROM AUDIENCE, AND/OR MODERATED QUESTIONS FROM SESSION CHAIR

THURSDAY

GENERAL CONTRIBUTED 2

Thursday, February 19 8:30 AM - 12:30 PM Burgundy
Chair: Aaron Pilnick

Imani Black

BEYOND PRODUCTION: LEVERAGING WORKFORCE DATA FOR AQUACULTURE'S NEXT GENERATION

Devin Fitzgerald, Melissa Good, Amalia Adruda Almada, Kevin Johnson, Sydney Rilum, Bradley Fox, Angee Doerr, Luke Gardner

PERCEPTIONS AND LITERACY OF MARINE AQUACULTURE AMONG THE GENERAL PUBLIC RESIDING IN COASTAL ALASKA, CALIFORNIA, HAWAII, AND OREGON

Jeff Hetrick, Annette Jarosz

EVALUATING SUBSISTENCE SHELLFISH BEACHES FOR FUTURE ENHANCEMENT PROJECTS

Michael MacNicoll, Samuel Rickerich, Zachary Moscicki, Nathaniel Baker, Tobias Dewhurst

NAVIGATE RISK WITH CONFIDENCE: UNDERSTANDING AND MITIGATING UNCERTAINTY IN OPEN OCEAN MARICULTURE

Olawumi O. Fapohunda, Grace Akinbamido

BIOTECHNICAL FACTORS OF HOMESTEAD FISH FARMING IN ADO LOCAL GOVERNMENT AREA, EKITI STATE, NIGERIA

Misha Soman, Baofeng Su, Mei Shang, Jinhai Wang, Hamza Dilawar, Darshika Hettiarachchi, Kate Pottle, Ahmed Shaaban, Nadeen Abdo, Dhanuka Bambaranda, Homnath Dhakal, Teresa David, David Baker, Brendan Leibert, Kieran Stein, Kailyn Shealy, Rex Dunham

IMPROVED GROWTH IN LEPTIN KNOCK OUT BLUE CATFISH *Ictalurus furcatus* USING CRISPR/CAS9 TECHNOLOGY

UNITED STATES TROUT FARMERS ASSOCIATION

Thursday, February 19 8:30 AM - 12:30 PM Loire

Chair: Michael Lee

A comprehensive series of presentations that delve into the innovative world of domestic trout farming and its crucial role in conservation, commerce, and sustainable food systems.

Jesse Trushenski, Riverence

ANIMAL WELFARE, HEALTH, AND WHAT FISH WANT

Ken Overturf, Riverence

INTEGRATING MACHINE VISION AND AI FOR PRECISION PHENOTYPING IN AQUACULTURE

Kevin Fitzsimmons, WRAC

WESTERN REGIONAL AQUACULTURE CENTER SPONSORED RESEARCH ON TROUT – PAST AND PRESENT

Myron Kebus, Michigan State University

HANDS-ON FISH HEALTH TRAINING FOR FARMERS AND VETERINARIANS

Bill Keleher, Kennebec River BioSciences

DOMESTIC TROUT MOVEMENT IN THE U.S. – WHERE DO WE STAND?

USTFA Membership Meeting

FROM POND TO POLICY: COMMUNICATING AND ADVOCATING FOR AQUACULTURE

Thursday, February 19 8:30 AM - 12:30 PM Chablis

Chairs: Maria Smithson, Caitlyn Czajkowski

Join the National Aquaculture Association in exploring the vital role of storytelling in bridging the gap between producers, scientists and the public. We will delve into how to public relations, and outreach can shift public perception and how these actions and advocacy can come together and lead to positive policy outcomes for aquaculture.

Maria Smithson, Director Membership & Marketing, National Aquaculture Association
FROM FARM TO FRONT PAGE – WHY YOUR STORY MATTERS: THE POWER OF PR
IN AQUACULTURE

Emily Riewestahl, Aquaculture Marketing & Communications Specialist, Florida Sea Grant

ENGAGING AUDIENCES THROUGH THE SOUTHEAST AQUACULTURE
COMMUNICATIONS COLLABORATIVE

Gabby Bradt, Extension State Specialist, Aquaculture & Fisheries, University of New Hampshire

GET AQUACULTURED! DEVELOPING AND PILOTING AN AQUACULTURE PODCAST
TO ENHANCE AQUACULTURE LITERACY.

Lauren Stigers, Extension Educator, Fisheries & Aquaculture, Michigan Sea Grant,
Michigan State University Extension

BUILDING SHARED VALUES AND AUDIENCE-CENTERED COMMUNICATION
ACROSS MICHIGAN'S AQUACULTURE SECTOR

Sharon Moen, Food-Fish Outreach Coordinator, Wisconsin Sea Grant, University of Wisconsin

WHY AND HOW TO TALK WITH YOUR LEGISLATORS

Caitlyn Czajkowski, Executive Director, National Aquaculture Association
CONGRESS 101: NAVIGATING THE SAUSAGE FACTORY

THURSDAY

SOCIAL LICENSE TO OPERATE: PUBLIC TRUST, POLICY, AND PRACTICE IN AQUACULTURE

Thursday, February 19 8:30 AM - 10:00 AM Champagne 3

Chair: Sebastian Belle

Industry and academic experts come together to share their experiences with earning and maintaining public trust in aquaculture, and the importance of community buy-in to achieve long term success.

Emily Whitmore, Associate Director, Maine Aquaculture Innovation Center
KEY LESSONS LEARNED IN EARNING SOCIAL LICENSE, AN ACADEMIC PERSPECTIVE

Bill Dewey, Director, Public Affairs, Taylor Shellfish Farms
KEY LESSONS LEARNED IN EARNING SOCIAL LICENSE, A FARMER'S PERSPECTIVE

Sebastian Belle, Executive Director, Maine Aquaculture Association & President, National Aquaculture Association
SOCIAL LICENSE AND COMMUNITY BUY IN: PUTTING IT ALL TOGETHER

THURSDAY

FEED INGREDIENTS

Thursday, February 19 9:30 AM - 5:00 PM Concorde B
Chairs: Vikas Kumar, Marina Rubio Benito

Daniela P. Rodrigues, Luisa Marques, João P. Sousa, Felisa Rey, M. Rosário Domingues, Rafael C. Duarte, Ricardo Calado
TROPHIC UPGRADE OF PLANT BASED DIETS BY THE MARINE GAMMARID AMPHIPOD *Gammarus locusta*: ANOTHER STEP TOWARDS INGREDIENT DIVERSIFICATION FOR AQUAFEEDS

Luisa Marques, Daniela P. Rodrigues, João P. Sousa, Felisa Rey, M. Rosário Domingues, Rafael C. Duarte, Ricardo Calado
MULTIGENERATIONAL PERFORMANCE AND FATTY ACID PROFILES OF THE MARINE GAMMARID *Gammarus locusta* USING VEGETABLE CO-PRODUCTS

Vikas Kumar, Matheus R. de Lima, Danielle D. Brutti, Ângela S. de Freitas Nascimento, Naiane C. de Lima Silva, Marcos A.V. de Assunção, Romulo de Carvalho Cabral, Ana C.A. Lopes, Warley M. Figueiredo, Natanael S. Félix
DIETARY INCLUSION OF CONDENSED TANNINS ENHANCES THE PERFORMANCE OF WHITELEG SHRIMP *Litopenaeus vannamei*

Sunnia Chiang, 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 FINGERLING HYBRID CATFISH *I. punctatus* female × *I. furcatus* male IN CLEAR WATER SYSTEM

Delbert Gatlin, Pedro Carvalho, Blaine Suehs, Gabriel Bake, Tara McNeil, Jeffery Tomberlin

EVALUATING THE NUTRITIONAL VALUE OF BLACK SOLDIER FLY LARVAE MEALS PRODUCED ON SUBSTRATES CONTAINING SEAFOOD PROCESSING BYPRODUCTS WITH RED DRUM *Sciaenops ocellatus* SUB-ADULTS

Jing Huang, Caitlin Older, Ganesh Kumar, Joshua Bumgarner, Matt Griffin, Peter Allen, Penelope Goodman, Grant Reifers, Fernando Yamamoto
COMPLETE REPLACEMENT OF MENHADEN FISHMEAL WITH ANIMAL PROTEIN CONCENTRATE ON A NITROGEN- OR COST-BASIS IN CATFISH FINGERLING FEEDS: EFFECTS ON PRODUCTION PERFORMANCE AND DISEASE RESISTANCE

Gabriel Bake, Delbert M. Gatlin III

SORGHUM PROTEIN CONCENTRATE: A VIABLE AND HIGHLY DIGESTIBLE ALTERNATIVE TO SOY AND FISHMEAL IN SUSTAINABLE TILAPIA AQUAFEED

Krishna P. Singha, Federico Moroni, Brian C. Small, Michael P. Phelps,

Derek J. Pouchnik, Vikas Kumar, Federico Moroni, Brian C. Small, Michael P. Phelps, Derek J. Pouchnik, Vikas Kumar

INTEGRATING AND MODELING PERFORMANCE WITH MICROBIOME-GUT-LIVER AXIS RESPONSES TO STRATEGIC REDUCTION OF SOY PROTEIN CONCENTRATE BY INCREASING SOYBEAN MEAL IN RAINBOW TROUT DIET

John Grayson, John Bowzer, Brandon Sorrell

UTILIZATION OF A PHYTOSTEROLS CONCENTRATE IN PRACTICAL DIETS FOR PACIFIC WHITELEG SHRIMP

Alex Gregory, Peter Shep, Wendy Sealey, Dong Fang Deng

REPLACING SOYBEAN OIL WITH BLACK SOLDIER FLY OIL IN YELLOW PERCH *Perca flavescens* DIETS: IMPACTS ON GROWTH, HEALTH, AND HEAT SHOCK TOLERANCE

Vikas Kumar, Indira Medina, Timothy J. Bruce, Alexandre Brito, Gustavo Cordero, Gilson Gomes, D. Allen Davis

EFFECTS OF DIETARY INOSITOL, PHOSPHORUS, AND PHYTASE ENZYME ON THE PERFORMANCE OF WHITE-LEG SHRIMP *Litopenaeus vannamei*

Julio Camperio, Carlos Carroza-Meza, Jorge Suarez, Daniel Benetti

GLOBAL RESEARCH TRENDS OF BLACK SOLDIER FLY LARVAE *Hermetia illucens* MEAL IN AQUACULTURE FROM A SCIENTOMETRIC PERSPECTIVE (2007-2025)

Pallab Sarker, Anne R. Kapuscinski, Brandi McKuin, Benjamin V. Schoffstall, Duncan Gwynne, Devin Fitzgerald

TOWARDS SUSTAINABLE FISH-FREE AQUAFEEDS: EVALUATING LOW-EMISSION, LOW-PHOSPHORUS MICROALGAL DIETS FOR RAINBOW TROUT *Oncorhynchus mykiss* AQUACULTURE

Daniel Assan, Brian Small

EVALUATING THE EFFECTS OF DIETARY PROPOLIS IN MITIGATING SOYBEAN MEAL-INDUCED ENTERITIS IN RAINBOW TROUT *Oncorhynchus mykiss*

Cristian Suarez Barazeta, Ana Beatriz de S. Farias, Caitlin E. Older, Grant Reifers, Penelope M. Goodman, Matt J. Griffin, Fernando Y. Yamamoto

FROM FEED COMPOSITION TO IMMUNE FUNCTION: EXPLORING MACRONUTRIENT RATIOS IN CATFISH AQUACULTURE

Alice Wynn, Barbara A. Bailey, Michael F. Tlusty, Nancy E. Breen, Andrew L. Rhyne
RELATIONSHIP BETWEEN FATTY ACID PROFILE AND EGG QUALITY IN MARINE FINFISH SPAWNS AT PUBLIC AQUARIUMS

Kyle Freimuth, Dong Fang Deng, Sharon Moen

VALORIZING LAKE WHITEFISH *Coregonus clupeaformis* BYPRODUCTS FOR AQUAFEED PRODUCTION

Sharareh Jahanbin, Leonid S. Brown, Anna K. Shoveller, Dominique P. Bureau
CHEMICAL DETERMINANTS OF DIGESTIBILITY OF PROTEINS AND BIO-AVAILABILITY OF AMINO ACIDS AND IDENTIFICATION OF EFFECTIVE INDICATORS OF HEAT DAMAGE IN ANIMAL PRODUCTS

Tanaboon Junlaprom, Waldemar Rossi Jr., Kasondra Miller, Craig M. Schluttenhofer, Femi J. Fawole, Brandy E. Phipps, Brandon R. McFadden
APPARENT DIGESTIBILITY OF FULL-FAT AND DEFATTED HEMP HEART MEALS IN JUVENILE RAINBOW TROUT *Oncorhynchus mykiss*

Jairo A. Gonzalez, Timothy J. Bruce, D. Allen Davis

DIETARY BARLEY INCLUSION AS A REPLACEMENT OF WHEAT, AND CARBOHYDRASES SUPPLEMENTATION ON GROWTH PERFORMANCE AND NUTRIENT UTILIZATION IN PACIFIC WHITE SHRIMP *Litopeanus vannamei*

Mian Adnan

EFFECTS OF MICROPLASTIC AND NANOPARTICLES CONTAMINATED FISH FEED ON *Cyprinus carpio* GROWTH AND ORAL/INTESTINAL MICROBIOME

STAYING AHEAD: UNDERSTANDING AND RESPONDING TO ANIMAL ACTIVISM

Thursday, February 19 11:00 AM - 12:30 PM Champagne 3

Chairs: Caitlyn Czajkowski, Mariai Smithson

An update from the National Aquaculture Association on some recent animal activist and anti-aquaculture activities and efforts.

Caitlyn Czajkowski, Executive Director, National Aquaculture Association
UPDATES ON THE NATIONAL AND STATE LEVEL AND WHAT TO LOOK FOR

Maria Smithson, Director of Membership and Marketing, National Aquaculture Association

ANIMAL RIGHTS ACTIVISM AND AQUACULTURE: PROTECTING FARMS THROUGH FACT & SCIENCE

THURSDAY

AQUATIC ANIMAL HEALTH 101

Thursday, February 19 1:30 PM - 5:00 PM Champagne 1

Chair: Kathleen Hartman

Introduction to aquatic animal health in aquaculture: its importance, how to incorporate biosecurity into your operations, fish diagnostics and more.

Connie Silbernagel, USDA APHIS VS
SCHOOLING THE REGULATORS: AN ADVENTURE IN AQUACULTURE HEALTH TRAINING FOR VS FIELD OPERATIONS

Beth Cleveland, USDA ARS, Shepherdstown, WV
GENETIC STRATEGIES FOR IMPROVING GROWTH PERFORMANCE AND NUTRIENT UTILIZATION IN SALMONIDS

Mark Polinski, USDA ARS, Maine
DISEASE DIAGNOSTICS AND PATHOGEN SURVEILLANCE: WHAT IS THE DIFFERENCE AND WHAT DO THEY TELL YOU

Paul Grech, Octapulse
HEALTHIER COHORTS FROM DAY ONE: USING AI FOR PHENOTYPING AND DEFORMITY INSPECTION

Glenda Dvorak, Iowa State University
START YOUR BIOSECURITY JOURNEY! TOOLS AND RESOURCES TO HELP AQUACULTURE FARMS MANAGE AND PREVENT INFECTIOUS DISEASES OF AQUATIC ANIMALS

Tony Vaught, ProAquaculture Services

BETTER HANDLING, BETTER HEALTH: PRACTICAL TIPS TO PROTECT YOUR AQUATIC STOCKS

Leah Stoker, FishPros Network

FROM SYMPTOMS TO SOLUTIONS: USING AI TO DIAGNOSE FISH DISEASE IN REAL TIME

Sarah Mielke, USDA APHIS VS

RETROSPECTIVE INFECTIOUS SALMON ANEMIA PROGRAM REVIEW

FINDING, DEVELOPING AND KEEPING TALENT IN TODAY'S AQUACULTURE WORKFORCE

Thursday, February 19 1:30 PM - 3:00 PM Chablis

Chair: Leah Stoker

Leah Stoker, FishPros Network

Finding, Developing & Keeping Talent in Today's Aquaculture Workforce

Q&A and Discussion on Aquaculture Workforce

CAREER NAVIGATION, BRANDING AND NETWORKING IN THE NEW WORK WORLD

Thursday, February 19 3:30 PM - 5:00 PM Chablis

Chair: Leah Stoker

Leah Stoker, FishPros Network

CAREER NAVIGATION, BRANDING & NETWORKING IN THE NEW WORK WORLD

Q&A and Discussion on Career Navigation, Branding & Networking

LAB-ON-A-CHIP WORKSHOP

Thursday, February 19 1:30 PM - 5:00 PM Burgundy

Chair: TBA

See Conference APP for details

AQUACULTURE COMMUNICATIONS

Thursday, February 19 1:30 PM - 5:00 PM Champagne 3
Chair: Afton Vigue

David J. Cline, Shima Rezaei, Brendan Higgins, Sheena Stewart
OPPORTUNITIES AND CHALLENGES ASSOCIATED WITH CONDUCTING
AQUAPONICS RESEARCH IN A HIGH SCHOOL SETTING

Nitzan Unger

ALASKA MARICULTURE INSIGHTS: ELEVATING ALASKA'S MARICULTURE
INDUSTRY THROUGH KNOWLEDGE SHARING AND INNOVATION

Imani Black

REFRAMING THE NARRATIVE: COMMUNICATING AQUACULTURE THROUGH
CONNECTION, CULTURE, AND COMMUNITY

Kurt Servin Arce

MARINE WHITE SNOOK *Centropomus viridis* CULTURE ON LOW SALINITY PONDS:
A NEW APPROACH ON MARINE AQUACULTURE

THURSDAY

Ashley Boggs, Fabio Casu, Jessica Reiner, Tracey Schock

ADVANCING AQUACULTURE BIOTECHNOLOGY THROUGH MEASUREMENT
SCIENCE: THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY'S ROLE

Benjamin Young, Saif Algethami, Anwer Abed Alazwari, Faris Alghamdi, Ali AL Shaikhi
SHRIMP AQUACULTURE BIOSECURITY IN SAUDI ARABIA: HISTORICAL
DEVELOPMENTS AND FUTURE DIRECTIONS

Andrew Ray, Dayan Perea, Gulnihal Ozbay

EXPERIENTIAL LEARNING AND EXTENSION TRAINING IN AQUACULTURE AND
FISHERIES FOR STUDENTS AT 1890 LAND GRANT INSTITUTIONS

Benter Anyango, Zixuan Ma, Hao Xu, Richard Newton, Dingxi Safari Fang, Chun Wang,
David Little, Wenbo Zhang

AQUACULTURE INDUSTRY COMPOSITION, DISTRIBUTION, AND DEVELOPMENT
IN CHINA

GENERAL CONTRIBUTED 3

Thursday, February 19 1:30 PM - 5:00 PM Loire

Chair: Carolyn Burdette

Carolyn Q. Burdette

QUALITY, SAFETY, AND TRUST: HOW NIST REFERENCE MATERIALS ADVANCE AQUACULTURE

Kristin Elliott, Michael Head, Brian Haist, Peter Frazier

HARNESSING HIGH-RESOLUTION OXYGEN DATA TO REVEAL TRENDS IN CATFISH POND DYNAMICS, AND UTILIZING MACHINE LEARNING TO FORECAST ANOXIC EVENTS

Austin Vincent, Kristin Elliott, Brenda Hernandez, Erik Elliott
WATER QUALITY MONITORING FOR SHRIMP FARMS**ECOLOGY / ENVIRONMENT**

Thursday, February 19 1:30 PM - 5:00 PM Versaille 2

Chair: Aaron Watson

Baba Usman Ibrahim

FOOD AND FEEDING HABITS OF CICHLIDAE IN TAGWAI RESERVOIR, NIGER STATE, NIGERIA

Sierra Greene, James Crimp, Arron Jones, Ginny Eckert
OCEANOGRAPHIC VARIABILITY ACROSS GULF OF ALASKA MARICULTURE FARMS**Ginny Eckert**, Rob Campbell, Becca Cates, James Crimp, Alysha Cypher, Muriel Dittrich, Melissa Good, Sierra Greene, Katrina Hoffman, Jordan Hollarsmith, Alex Huller, Arron Jones, Amanda Kelley, Brenda Konar, Angela Korabik, Christopher Long, Spencer Lunda, Caitlin McKinstry, Riley O'Neil, Michael Rehberg, Anne Schaefer, Schery Umanzor
ECOSYSTEM INTERACTIONS AND INFLUENCES AT MARICULTURE FARMS IN ALASKA**Olatayo Michael Ogunbanwo**MULTI-SYSTEM METABOLIC ALTERATIONS IN TISSUES OF *Oreochromis niloticus* EXPOSED TO DICLOFENAC SODIUM SALT TOXICITY IN A MICROCOISM EXPERIMENT**Paolo Pastorino**, Antonia Concetta Elia, Camilla Mossotto, Alice Gabetti, Monia Renzi, Giuseppe Esposito, Damià Barceló, Marino Prearo
THE ROLE OF ECOTOXICOLOGY IN SUSTAINABLE AQUACULTURE

Abul Bashar, Niels O.G. Jorgensen, Mohammad Mahfujul Haque
PATHWAYS TO CLIMATE-RESILIENT PRAWN AQUACULTURE: EVIDENCE FROM
INTEGRATED MULTI-TROPHIC SYSTEM

Shuva Saha, Uttam Deb, Benjamin Johnson, Michael Eggleton, Erin Thayer
FISH ASSEMBLAGE AND WATER QUALITY RELATIONSHIPS IN NORTHEASTERN
ARKANSAS WETLANDS

ADVANCES IN RAS

Thursday, February 19 1:30 PM - 5:00 PM Bordeaux

Chairs: Michael Ben Timmons, Steven Hall

Sponsor: Aquacultural Engineering Society

Joya Saha, Jemuel S. Doctolero, Timothy Allen Rice, Aya S. Hussain, Paul B. Brown
INTEGRATING REVOLVING ALGAL BIOFILM (RAB) IN A RECIRCULATING
AQUACULTURE SYSTEM (RAS) FOR NUTRIENT RECYCLING AND WATER QUALITY
IMPROVEMENT

Ze Zhu, Amit Gross, Paul Brown
RESOURCE RECOVERY AND INCREASING PRODUCTIVITY IN SUSTAINABLE
INTENSIVE NEAR ZERO WASTE ASSIMILATION BASED RECIRCULATING
AQUACULTURE SYSTEMS (AsRAS)

Steven Hall, Daniel Smith, Randy Price, Natalie Nelson, John-Paul Ore,
Celso Castro-Bolinaga, Sierra Young, Sam Holberg, Swarna Chowdhury, Ethan Mullen,
Lirong Xiang, Yael Edan, Elizabeth Gillikin
AQUACULTURAL ROBOTICS ENHANCE MEASUREMENT, PRODUCTIVITY AND
SAFETY

Michael B. Timmons, Robert E. Abend
RESULTS FROM AN INNOVATIVE MIXED CELL RACEWAY (MCR) DESIGN

Katie McCann
RAS TO RICHES: SKRETTING'S STRONGHOLD IN CLOSED-LOOP AQUACULTURE
SYSTEMS FOR WARMWATER FINFISH

Abhinav Choudhury, Christine Lepine, Christopher Good, Brian Vinci, Scott Tsukuda,
Shanen Cogan, JC Stanley
TURNING FISH WASTE INTO ENERGY: BUILDING A PILOT ANAEROBIC DIGESTER
FOR AQUACULTURE WASTE

Nowrin Akter Shaika, Halis Simsek
INTEGRATED FISH FARM WASTEWATER TREATMENT AND BIOFUEL FEEDSTOCK
PRODUCTION USING GREEN MICROALGAE

THURSDAY

Travis Knorr, Jason Smause, Jackson Woods, Patrick Poulin, Dee Dee Smause, Donna Vaughan, David Vaughan

DEVELOPMENT OF OFF-GRID LIFE SUPPORT SYSTEMS TO ENHANCE AQUACULTURE FACILITY RESILIENCY IN COASTAL REGIONS

Chimezie Chiama, Michael Benton, Ronald Malone, Chinedu Chiama

EVALUATION OF NATURAL WAX-BASED CARBON SUBSTRATES FOR HETEROTROPHIC AMMONIA ASSIMILATION FOR APPLICATIONS IN RAS START-UP

Aya S. Hussain, Jemuel Doctolero, Thomas To-Hung Tsui, Robert Anex, Jen-Yi Huang, Paul Brown, Jemuel Doctolero, Thomas To-Hung Tsui, Robert Anex, Jen-Yi Huang, Paul Brown

INSIGHTS FROM LIFE CYCLE ASSESSMENT: DEVELOPING QUANTITATIVE METRICS FOR SUSTAINABLE AQUACULTURE IN THE NORTH CENTRAL REGION OF THE UNITED STATES

Marissa Bermeo, Andrew J. Ray

FROM BIOFLOC TO CLEAR WATER: A PROGRESSION OF RAS DESIGNS FOR OPTIMIZING SHRIMP FARMING SYSTEMS