

NACE/MAS Aquaculture Conference Schedule						
Wednesday, January 14						
8:00 AM - 5:00 PM Recirculating Aquaculture Systems Workshop (Connecticut/Rhode Island Room)						
Field Trips (meet in the Hotel Lobby) Bigelow Laboratory, Darling Marine Center & Mook SeaFarm tour (departs at 8:30 AM) University of New England Aquaculture Facilities tour (departs at 9:00 AM) Portland Fish Exchange, Gulf of Maine Research Institute & Fish Vet Group tour (departs at 10:00 AM) Ocean Approved & Trundy Point Farm Tours (departs at 10:00 AM)						
12:00 PM - 5:30 PM Aquaculture Research & Development Networking Forum (New Hampshire Room)						
4:00 PM Registration opens in the Hotel Lobby						
7:00 PM Opening Reception in the Casco Bay Exhibit Hall (trade show opens)						
Thursday, January 15						
7:00 AM Registration in Hotel Lobby						
8:00 AM Breakfast in Casco Bay Exhibit Hall						
8:00 AM Plenary Session in the State of Maine Ballroom (Vermont/New Hampshire) Rapid fire industry updates of issues facing the northeastern states and maritime provinces						
9:30 AM Break & Trade Show Opens in the Casco Bay Exhibit Hall						
Vermont General Aquaculture Chair: Walter Błogostawski		New Hampshire Seaweed Farming Co-Chairs: Jang Kim, Sarah Redmond & Charles Yarsik		Massachusetts Vibrios in Shellfish: Public Health Management and Research Chair: Steve Jones	Rhode Island Predators, Nuisance Species and Biofouling Chair: Sandra Shumway	Connecticut General Shellfish Chair: Lisa Milke
10:00 AM Aquaculture as a vital component of the new ocean clusters at the University of New England Barry Costa-Pierce		Introduction to the kelp nursery technologies: Wild-sourced seeding and hybridization Jang Kim		Genetic characterization of clinical and environmental <i>Vibrio parahaemolyticus</i> from the northeastern US reveals emerging resident and invasive pathogen lineages Feng Xu	Aquatic invasive species in Prince Edward Island, Canada: A look at industry innovation Kim Gill	The Connecticut shellfish initiative: building on the past and creating a vision for the future Tessa Getchis
10:15 AM Demonstration of living shoreline technology on Martha's Vineyard, MA Emma Green-Beach		Introduction to the kelp farming technologies: Open water farming Sarah Redmond		<i>Vibrio parahaemolyticus</i> prevalence in Maine oysters Cem Giray	Why sea ducks forage in mussel farms? Preferences and efficiencies when foraging on cultivated or intertidal mussels Elisabeth Varennes	Development of Maryland shellfish aquaculture: a ten-year assessment Don Webster
10:30 AM Getting the N out - a search for bioremediation alternatives to sewage treatment Richard Karney		Development of a cultivation program for a morphologically distinct strain of the sugar kelp, <i>Sargassum muticum</i> forma <i>angustissimum</i> from Southern Maine Simona Augyte		<i>Vibrio parahaemolyticus</i> control for oysters in Massachusetts Christopher Schillaci	High brightness LEDs deter eider predation at mussel rafts Donald Ranning	Comparison of bottom and floating gear for growing and floating gear (<i>Crossostrea virginica</i>) in Southeastern Massachusetts Abigail Archer
10:45 AM Eastern Maine Skippers Program: 21st Century Pedagogy found on the water, on the shore and in eastern Maine schools David Mckechnie		Kelp farm design for Long Island Sound Clifford A. Goudey		Connecticut's <i>Vibrio parahaemolyticus</i> control plan and monitoring program Kristin Derosi-Banick	Sea duck predation in mussel farms: the best nets for excluding common eiders safely and efficiently Elisabeth Varennes	Arctic surfclam, <i>Macromerus polymorpha</i> , Culture at the Downeast Institute: exploring methods to diversify domestic seafood by creating a new, farmed-raised bivalve Brian Beal
11:00 AM Maine seafood study: a look at the integration of Maine seafood into food distribution systems Hugh Cowperthwaite		Experience with the culinary industry: Developing new seaweed products Paul Debbins		Effect of intertidal exposure on <i>Vibrio parahaemolyticus</i> levels in Delaware Bay oysters Lisa Calvo	Novel anti-predator coatings for shellfish aquaculture Daniel Ward	Fresh local shrimp in the northeast: can recirculating systems make it happen? Josh Reitsma
11:15 AM Capitalizing on waste streams in aquaculture Patrick Arnold		Training guidance to new kelp growers Bren Smith		Development and application of a duplex qPCR for the detection of <i>Vibrio parahaemolyticus</i> and <i>Vibrio vulnificus</i> in enriched oyster homogenates from Rhode Island and Massachusetts Kathryn Markey	Development of novel antifouling coatings for the aquaculture industry Alex Walsh	An initial look at batch culture of juvenile American lobsters, <i>Homarus americanus</i> , at the Sound School Aquaculture Center Sarah Vedder
11:30 AM Common mistakes for new growers to avoid Susan Brawley		Development of liver, gut, and alaria in the University of Maine's Sea Vegetable Nursery Facility Susan Brawley		Human health safety considerations for using <i>Vibrio</i> sp. Probiotic strain oY15 as a feed supplement to improve survival of larvae of the eastern oyster (<i>Crossostrea virginica</i>): genome sequencing and mammalian cytotoxicity assay Diane Kaparekio	Treatments to eradicate bacterial fouling from blue mussel seed and aquaculture bags Mary Carmen	Summaring Milford Laboratory's research on the ecological effects of hydraulic dredging, as used in clam cultivation in Long Island Sound Ronald Goldberg
11:45 AM Seaweed Farming in the Northeast Atlantic: A Roundtable Discussion Robert Rheault		Yarish, Redmond & Kim		Long-term trends of pathogenic <i>Vibrio</i> sp. Populations in New Hampshire oysters Stephen H. Jones	Two potential passive anti-predator techniques for longline mussel culture Marcel Fréchet	Discussion
12:00 PM Lunch in the Casco Bay Exhibit Hall Special Guest Speaker John Bullard						
Vermont Ocean Planning for Offshore Aquaculture Chair: John Weber		New Hampshire Finfish Chair: William Wolters		Massachusetts Shellfish Farming 101 Co-Chairs: Gef Filimin, Dale Leavitt & Bob Rheault	Rhode Island Mussel Farming Chair: Scott Lindell	Connecticut Sustainability Chair: Paul Anderson
1:30 PM Selection responses for carcass weight in four Atlantic salmon year classes William Wolters		Investigating factors contributing to reduced embryo survival in farm-raised Atlantic salmon, <i>Salmo salar</i> Leanne Thyner		Initiating a shellfish culture operation can be quite challenging. This workshop will focus on several of the basic concepts that new growers must face when starting a shellfish aquaculture business. The session will cover the basics of shellfish animal husbandry; an overview of nursery and growout techniques for dams and oysters; common mistakes for new growers to avoid; recordkeeping makes good business sense; addressing hazards in shellfish farming/biosecurity; and niche marketing for oyster growers. Nathaniel Mulcahy	Advancing blue mussel longline aquaculture techniques in Rhode Island Mason Silkes	Sustainable Ecological Aquaculture Network (SEANET): A Maine EPSCoR Project Paul Anderson
1:45 PM This session will provide an overall update on the progress since the last discussion at the NACE meeting in Mystic in 2012, including the results of discussions with industry, government, and non-governmental organizations about ways in which regional plan data and guidance can enhance the regulatory process. Adam St. Gelais		A strain comparison of striped bass cultured in salt water recirculating systems Linus Kenter		Structural and functional advantages of <i>Conus intestinalis</i> for use as fish feed Nathaniel Mulcahy	Establishing offshore mussel farms in federal waters Edward (Ted) Maney Jr.	An integrated ecological-economic modeling framework for the sustainable management of oyster farming Carrie Byron
2:00 PM 2:15 PM 2:30 PM 2:45 PM 3:00 PM		Student run recirculating aquaculture system for aquaculture of the kaimings variety of steelhead trout (<i>Oxyrinchus mykiss</i>) Adam St. Gelais		Initial training of fishermen on small scale, integrated multi-trophic aquaculture in New Hampshire, USA Michael Chambers	Facts and figures for farming, business planning and marketing mussels Scott Lindell	Annual consistency in blue mussel, <i>Mytilus edulis</i> , seed production using hatchery methods at the Downeast Institute Brian Beal
3:00 PM		The effects of temperature and photoperiod on blue mussel (<i>Mytilus edulis</i>) health Kyle Pfau		Hydrodynamics and mussel raft technology Carter Newell	Are the aquaculture practices sustaining our goal to restore oysters (<i>Crossostrea virginica</i>)? Gulnihal Ozbay	Building a national financing fund for responsible fisheries and aquaculture businesses Richard Clime
Break at the Casco Bay Exhibit Hall						
Vermont ECSGA Annual Meeting Chair: Bob Rheault		New Hampshire Eel Culture Symposium Chair: Barry Costa-Pierce		Massachusetts Use of Instrumentation for Aquaculture Site Selection and Water Quality Monitoring Co-Chairs: Dale Leavitt & Chris Davis	Rhode Island Mussel Farming Chair: Scott Lindell	Connecticut NE Oyster Breeding Update and Roundtable Chair: Paul Rawson
3:30 PM		Eel aquaculture team: a partnership to develop eel aquaculture and enhance eel value chains Barry Costa-Pierce		Identification of optimal aquaculture sites and monitoring the water quality on those sites depends on a variety of physical, chemical and biological factors such as bathymetry, currents, temperature, salinity, dissolved oxygen, turbidity and phytoplankton abundance. This hands-on workshop will demonstrate a wide range of instruments available to aquaculturists and how they can be used to assist growers in site selection and monitoring water quality both shore-side and out on the farm. Brian Preziosi	Mussel farming - a vertical integration approach - it's risks and rewards Ian Jeffords	Disease-resistance and improved performance for genetically improved and cross-bred eastern oysters (<i>Crossostrea virginica</i>): results from a decade of field trials in New England Paul Rawson
3:45 PM		Research and development challenges leading to viable farming of <i>Anguilla rostrata</i> in North America Paul Smith		Management, regulation and stock assessment for <i>Anguilla rostrata</i> Mitchell Feigenbaum	Mussel farming in state and federal waters of southern New England Scott Lindell	Performance of selectively-bred lines of Eastern oysters, <i>Crossostrea virginica</i> , at different locations along the east coast of the United States Marta Gomez-Chiarri
4:00 PM		Eel diseases in aquaculture Michael Pietrak		A handful of eels: sharing initial experiences and observations Sara Radamaker	An overview of the PEI cultured mussel industry: Ongoing challenges and recent developments Peter Warris	Round Table Discussion of Oyster Breeding Efforts in the Northeast Region
4:15 PM		Discussion Discussion		Direct measurements of the nutrient management potential of ribbed mussels, <i>Goukenia demissa</i> , at two sites in upper Narragansett Bay, Rhode Island Mark S. Dixon	Discussion	
5:00 PM Poster Session & Happy Hour in the Casco Bay Exhibit Hall						
7:00 PM Dinner on your own out on the town						
Friday, January 16						
7:00AM Registration in the hotel lobby						
7:00AM Breakfast in the Casco Bay Exhibit Hall						
Vermont US/Canada Roundtable Chair: Dana Morse		New Hampshire Green Crabs I Chair: Joe Buttner		Massachusetts General Shellfish Chair: Lisa Milke	Oxford/Somerset The Billion Oyster Project: Engaging Students in the Restoration of a Degraded Estuary Chair: Peter Malanowski	Kennebec/Lincoln Preparation of Shellfish for Disease Diagnostics I Co-Chairs: Dale Leavitt & Roxanna Smolowitz
8:30 AM		Green crab, <i>Carcinus maenas</i> , wars in southern Maine: managing public shellfish stocks during times of exploding predator abundance Brian Beal		Remote setting training program: supporting seed production for Maryland oyster growers Don Webster	Students of the aquaculture program at the New York Harbor School will present their work on the Billion Oyster Project (BOP) including the history of oyster restoration in New York Harbor, Harbor School's work to date and the development of the BOP. The aquaculture students will discuss how they work with other career and tech ed programs at Harbor School to restore oysters to New York Harbor. A detailed overview of the oyster cultivation process and the future plans of the BOP will be discussed. Students will also present short explanations of their own research projects. These projects are designed to better understand and improve on the oyster cultivation techniques employed by the school. Finally, students will lead the audience in an oyster gardening workshop.	This hands-on laboratory will provide both practical experience and useful knowledge to culturist. In the first session, participants will examine the anatomy of 3 important bivalves, eastern oysters, surf clams (a proxy for hard clams), and sea scallops. Participants will learn how to identify disease abnormalities and evaluate the animal's condition. The how and why of sample submission to a diagnostic lab will be discussed.
8:45 AM		European green crabs in southern Maine marshes: trends in abundance and marsh impacts Kristin Wilson		Derived macroalgae feed and its potential use in shellfish aquaculture Zach Hope	Continuation of the previous session	
9:00 AM		Northwest Atlantic population structure and gene flow in the green crab: an update on the crab's dynamic invasion front April Blakeslee		The effects of candidate probiotics on several species of cultured larvae shellfish Saebom Sohn		
9:15 AM		Economic assessment of using a commercial fishery to control the invasive green crab in PEI Sophie St-Hilaire		Microalgae concentrates: a "disruptive technology" that can revolutionize bivalve hatcheries Eric Henry		
9:30 AM		Comparison of proposed control methods for the invasive European green crab (<i>Carcinus maenas</i>) James Elliott		New insights into the development and function of hemocyte types in oysters Gary Wilfords		
9:45 AM		Invasive European green crabs: sudden increase in erosion potential on salt marshes in southern and central coastal Maine Daniel Belknap		Classification of Atlantic razor clam (<i>Esis directus</i>) hemocytes using light and transmission electron microscopy Brian Preziosi		
10:00 AM Break at the Casco Bay Exhibit Hall						
Vermont Scallop Culture Chair: Dana Morse		New Hampshire Green Crabs II Chair: Joe Buttner		Massachusetts USDA Opportunities In Aquaculture Chair: Ken Gustin	Oxford/Somerset Physical Therapy for Aging Aquaculturists Chair: Kassia Garfield	Kennebec/Lincoln Preparation of Shellfish for Disease Diagnostics II Co-Chairs: Dale Leavitt & Roxanna Smolowitz
10:30 AM		Progress in aquaculture of sea scallops (<i>Placostrota magellanicus</i>) in Maine Dana Morse		Results of the 2013 U.S. Census of Aquaculture show industry growth Gary Keough	This hands-on workshop will provide information on how to make better work habits, how to maximize efficiency and save you back! Exercises will be provided with demonstrations. This fun, interactive presentation will show you how to create better work environments in the aquaculture workplace	Continuation of the previous session
10:45 AM		Shellfish sanitation management framework for aquaculture scallops Kohl Karwit		Aquaculture in the Northeast is a major economic activity, and FSA program and loan offerings provide options to mitigate risk of loss, improve financial viability, obtain critical working capital for operating needs, make improvements or accomplish updates and refurbishments of equipment and facilities, and meet storage needs following harvest. USDA representatives from the Farm Service Agency (FSA) will present a workshop on program and loan opportunities for the aquaculture industry.	Making the leap from part-time to full-time in aquaculture Co-Chairs: Dana Morse & Don Gooding	Preparation of Shellfish for Disease Diagnostics I Co-Chairs: Ian Bricknell, Debbie Bouchard & Mike Pietrak
11:00 AM		Scallops and algal toxins - same threat different day Sandra Shumway		Discussion		
11:15 AM		Recent developments in purple hinged rock scallop culture on the US west coast Joh Davis		Preliminary results generated by MTI CIP 163 "Under-Utilized Shellfish Products With Emphasis on Green Crab Maine" John Der Kinderen		
11:30 AM		Magellan Aqua Farms utilizes lantern nets suspended from a buoyed long line Steven Bachman		Discussion		
11:45 AM		Discussion				
12:00 PM Lunch in the Casco Bay Exhibit Hall Special Guest Speaker Barton Seaver						
Vermont Gear Entanglement Workshop Chair: Scott Lindell		New Hampshire Ocean Acidification I Chair: Mark Green		Massachusetts Aquaculture Farm Modeling and Site Selection Chair: Damian Brady	Oxford/Somerset Making the leap: strategies, people and resources to help you go from part-time to full-time in aquaculture Co-Chairs: Dana Morse & Don Gooding	Kennebec/Lincoln Preparation of Shellfish for Disease Diagnostics I Co-Chairs: Ian Bricknell, Debbie Bouchard & Mike Pietrak
1:30 PM		Collaborating to develop offshore aquaculture while minimizing potential impacts to protected species David Bean		Ocean acidification: The current state of knowledge Mark Green	Merging, modeling and mapping to improve shellfish aquaculture site selection Julie M. Rose	The goal of the workshop is to provide commercial aquaculturists and extension professionals with a working knowledge of what constitutes good quality fish disease diagnostic specimens, how to select those specimens, how to properly package those specimens for shipment to a fish disease diagnostic laboratory and what information should be provided with those specimens. Information will also be provided describing the various testing methods and time required to obtain test results.
1:45 PM		Entanglement risk reduction in aquaculture gear Clifford A. Goudey		Upwelling of acidified water: Not just an issue for shellfish hatcheries on the West Coast of the US Daphne Munroe		A proactive GIS assessment of suitable offshore aquaculture sites in the Gulf of Maine integrating social, biological, and economic factors Michael Thutzy
2:00 PM		Entanglements of North Atlantic right whales in fishing ropes Scott Kraus		Emergent regional interest to combat ocean acidification Suzanne Arnold		Production modeling and siting for mussel and oyster farms in the Northeast Carter Newell
2:15 PM		Fixed gear and protected species in Massachusetts - implications for subtidal aquaculture gear Erin Burke		Subaqueous soils and coastal acidification: A hydrogeology perspective Brett Stoll		Modeling flow through aquaculture farms John Richardson
2:30 PM		What we can learn from entanglement cases of whales and turtles in mussel farming gear Scott Lindell		Acidic mud and clam shell pitting in Casco Bay, Maine Joe Payne		In vivo fluorescence based chlorophyll a measurements - how close are we to the truth? Judy Li
2:45 PM		Spatial-temporal management of conflicts with protected species Hauke Kite-Powell		Coping with copious freshwater in mid-coast Maine Bill Mook		Sediment flux modeling of bivalve aquaculture spatial impacts on sediments (BASIS) Damian Brady
3:00 PM Break in the Foyer						
Vermont Shellfish Health Chair: Tim Bowden		New Hampshire Ocean Acidification II Chair: Mark Green		Massachusetts Farm Modeling & ShellGIS Workshop Chair: Carter Newell	Oxford/Somerset Aquaculture Farming & Management Chair: John Ewart	Kennebec/Lincoln Preparation of Shellfish for Disease Diagnostics II Co-Chairs: Ian Bricknell, Debbie Bouchard & Mike Pietrak
3:30 PM		Detection of live marine mollusc pathogens: Are we heading in the right direction? Ryan Carnegie		Biological responses of multiple Northeast taxa to ocean acidification Meredith M. White		Clearance rate regulation in mussels: adding the effect of organic seston level to a model of intertidal site-based regulation Marcel Fréchet
3:45 PM		Skulking behind an MSX smokescreen: SSO prevalence in Maine and Massachusetts Cem Giray		A preliminary assessment of the effect of increased seawater acidity on juvenile bay scallops (<i>Argopecten irradians irradians</i>) from two genetic lines Isaiah Mansour		Identifying and addressing process-related challenges to the expansion of sea vegetable aquaculture in Connecticut Anushka Concepcion
4:00 PM		Screening biofouling organisms around oyster cages for potential reservoir species or intermediate hosts of the oyster parasite MSX in the Damariscotta estuary Nicole Messerian		Why ocean acidification may not be the end of shellfish Robert Rheault		Shellfish aquaculture in Delaware's coastal (inland) bays: regulatory status and outlook for 2015 John Ewart
4:15 PM		The application of a quantitative PCR with a plasmid standard curve to evaluate <i>Parvovirus marinus</i> levels in the Eastern oyster, <i>Crossostrea virginica</i> Whitney Jalliet		Lessons learned from stakeholders at Maine's Ocean Acidification Workshop towards an implementation plan Esperanza Stancioff		Aquaculture and the Rhode Island Shellfish Management Plan David Beutel
4:30 PM		Epizootiological analysis of QPX disease shellfish from hard dam (aka quagga) monitoring in an estuarine estuary. Soren Dahl		Prevalence of the oyster parasite MSX in the Damariscotta estuary during 2012 Nicole Messerian		Aquaculture standards and certification Cormac O'Sullivan
5:00 PM Closing Remarks (New Hampshire Room)						