

Advancing Tools for Modeling, Forecasting and Managing for Vibrio spp. in the North East Region

November 17 -18, 2015

University of Connecticut Avery Point Campus and Webinar

ORGANIZERS: NOAA, UCONN, FDA, MARACOOS, Sea Grant, and Regional Shellfish Control Authorities from ME, NH, MA, RI, CT and NY

MEETING BACKGROUND: NOAA is working in partnership with State, federal, tribal and private sector industries to understand regionally specific data and information needs; integrate existing data and identify data gaps; and develop new assessment and forecast tools that result in regional economies and environments that are increasingly resilient to changing conditions.

The purpose of this workshop is to assess the requirements and needs of stakeholders (public health officials, shellfish growers, managers, IOOS community) based on shellfish operations and harvest management practices, and the current state of the science for Vibrio forecast and risk assessment in North East Region. Outcomes of this meeting will help shape NOAA's effort in the development of forecasting tools that are tailored to the unique needs of North East Region.

We will also offer a Webinar option for those who cannot participate in person but who would like to be involved in this process.

Registration for this workshop is FREE.

Workshop Webpage:

<http://cprime.uconn.edu/meeting/>

Link to Register to Attend Meeting at Avery Point:

<https://www.eventbrite.com/e/northeast-region-vibrio-forecasting-workshop-tickets-18905119722>

Link to Register for Webinar Only:

<https://attendee.gotowebinar.com/register/3453014438373215490>

Options for lodging in the area:

Mystic Marriott: <http://www.marriott.com/reservation/rateListMenu.mi>

Hilton Garden Inn: <http://hiltongardeninn3.hilton.com/en/hotels/connecticut/hilton-garden-inn-mystic-groton-GONNLGI/index.html>

Thank you!

Organizers

John Jacobs (NOS), Angelo DePaola (FDA), Michael Whitney (UCONN), Kristin DeRosia-Banick (CT Department of Agriculture), Chris Schillaci (MA DMR), Peter Moore (MARACOOS)

MEETING OBJECTIVES:

1. Participants gain a shared understanding of:
 - The unique characteristics of the shellfish industry in the North East Region;
 - The current state of scientific modeling and management of Vibrio risk (including current assumptions and limitations); and
 - Existing tools and techniques for Vibrio risk assessment, and resource management
 - Information and messaging on Vibrio for a variety of audiences to inform future regional outreach efforts
2. Shellfish growers provide input on data and information needed to improve resource/harvest management operations, and offer thoughts on what tools and development efforts would be most useful for their commercial operations.
3. Academic, state and federal research community provide input to improve current tools and/or develop new tools and techniques for risk assessment and harvest management, and to discuss outreach

Participants leave meeting with a shared understanding of next steps.

Workshop Summary

November 17, 2015

Day 1 - Assessing the Current State (Industry/Management focused for those who cannot participate on Day 2)

Platform presentations on:

- Current Vibrio research in the NE Region, Vibrio illnesses and control plans;
- Grower and industry observations and concerns;
- Tools and models being developed for Vibrio management

Late PM: Facilitated discussion of industry and management needs

November 18, 2015

Day 2 – Planning for the Future

Platform Presentations on:

- Environmental Observations and Monitoring
- Analytical Methods/Phylogenetics
- Vibrio Risk Assessments and Statistical Analysis
- New Time Temperature Technologies

Facilitated break-out sessions addressing the following:

- What products would be most useful for the region?
- What observations and resources are available for development?
- What is the best approach for disseminating products?
- How do we get there from here?

WORKSHOP AGENDA

Tuesday, November 17, 2015 (Industry/Management Focused)

8:00 Registration/Coffee

9:00 Welcome and Introductions

9:30 Ecology of *Vibrio parahaemolyticus* in the North East Region: Steven Jones, University of New Hampshire

9:45 **Session I: Panel Presentations - Current Management and Risk Assessment in the North East Region**

1. Overview of Illness Occurrence and Regulations in North East Region:

Lizzie Evans, FDA

Kristin DeRosia-Banick, CT Department of Agriculture Bureau of Aquaculture (CT DABA)

Christopher Schillaci, MA Department of Marine Resources (MA DMR)

Deb Barnes, NY Department of Environmental Conservation (NY DEC)

2. Epidemiological Perspective on Vibrio Infections in the Northeast Region, Paul Gacek, Field Epidemiologist, Epidemiology and Emerging Infections Program, CT DPH

3. Current FDA Vp risk assessment and vision for updating and regionalization/Emerging risk management tools: Angelo DePaola, FDA

11:00 Break

11:10 **Session II: Panel Presentations - Overview of North East Region Shellfish Industry**

1. Bob Rheault, East Coast Shellfish Grower Association

2. MA Aquaculture Cage Cultivation

3. NY Clam harvester, Aquaculture Cage Cultivation

4. CT Aquaculture and Bottom Cultivation

12:15 Lunch

1:00 **Session III: Panel Presentations - Vibrio Hindcasting/Forecasting, Environmental Observations**

1. NOAA/FDA Vibrio forecasting, John Jacobs, NOAA, NOS

2. Prototype of an Operational Global Vibrio Risk Assessment Tool, Joaquin Triñanes, Technological Research Institute, Universidad de Santiago de Compostela, Spain

3. Overview of the Long Island Sound Model and its Application to Vibrio Management, Michael Whitney and Kristin DeRosia-Banick, UCONN and CT DABA

4. Modeling for Vibrio Management in Massachusetts, Chris Schillaci, MA DMR

5. Tools for Accessing Ocean and Coastal Data for the North East Region, Peter Moore, MARACOOS

2:50 Break

3:00 **Working Session 1: Refining Industry Needs and Management Application Requirements:**

- Harvesters, public health practitioners, and researchers provide input on opportunities for improving current tools and/or developing new tools and techniques for Vibrio spp. risk assessment and harvest management

- This work session will generate input on the data and information needed to improve resource/harvest management operations. Results from this session will inform the next day's technical workshop activities

Wednesday: November 18, 2015

8:00 Coffee

8:30 Welcome and Day 2 Overview

9:00 Session IV: Panel Presentations - Environmental Observations/Analytical Methods/Phylogenetics

1. Regional Environmental Monitoring: EPA, NOAA Marine Fisheries, DEC/DEEP/DMR, Harbor Watch/River Watch
2. Phylogenetic and Comparative Genomic Analysis of Resident Pathogenic *Vibrio parahaemolyticus* Strains in the North East Region: Feng Xu, Jeffery Hall, Steven Jones, Cheryl Whistler, Cooper Vaughn, University of New Hampshire
3. Regional Vp Risk Assessment/Data Analysis: John Bowers, FDA
4. Laboratory Methods for Vp Detection: Jessica Jones, FDA
5. VITSAB Smart Time Temperature Indicator Label Applications for Vibrio: Jeff Desrosiers, VITSAB
6. Extension Perspectives on Regional Understanding of Vibrio

10:30 Break

10:45 Working Sessions 2: Modeling and Outreach

Participants will be asked to engage in discussion on paths forward

Workgroup Breakout Sessions:

	Hindcasting Forecasting Modeling	Outreach
Workgroup Leads	John Jacobs	Andy Depaola
	Chris Schillaci	Kristin DeRosia-Banick
	Mike Whitney	Bob Rheault
		Diane Murphy MA Sea Grant

12:15 Lunch

1:00 Working Sessions 3: Analytical, Data Management, Risk Assessments

Laboratory Molecular Analytical	Real Time Data and Data Management	Regional Risk Assessment/ Management Tool
Jessica Jones	Peter Moore	John Bowers
UNH Team Designee	Chris Schillaci	Andy Depaola
Joe DeCrescenzo/Diane Regan	Mike Whitney	Kristin DeRosia-Banick
		Diane Murphy MA Sea Grant

2:15 Workgroup Session Reports

3:00 Closing Remarks and Adjourn