

Early Detection of *Dreissena* Mussels in the West 21-22 January 2009 – Denver Colorado

- 8:00 Registration
8:30 Introduction by organizers and sponsors
Review agenda, meeting objectives, and outcomes (Marc Frischer)

Meeting Objectives and Outcomes

- 1) **Objective:** Identification of current state of the art detection and monitoring approaches.
Outcome: Participants should understand the state of the art of cross-polarized light microscopy-based and PCR-based larval detection assays. Participants should be familiar with survey/detection approaches for juvenile settlers and discovery of adult populations

- 2) **Objective:** Identification of current regional practices for early detection, monitoring of Dreissenid mussels.
Outcome: Familiarize all participants with ongoing early detection and monitoring programs. Recognize the priorities and limitations facing each state.

- 3) **Objective:** Identify the most important criteria for deciding that a body of water is infested with zebra/quagga mussels.
Outcome: Reach consensus among participants (managers and scientists) about when a water body is considered to be mussel infested. Propose a scaled (Green to Red) system of zebra mussel risk that could be linked to specific management actions. We won't deal with the specific management actions at this workshop but at the 100th Meridian meeting following.

- 4) **Objective:** Outline a comprehensive monitoring and early detection plan that can be used to draft the 2009 plan at the 100th Meridian meeting.
Outcome: Produce a draft of an early detection and monitoring plan that will facilitate its draft at the following 100th Meridian meeting.

DAY ONE – Wed 21 January 2009

Objective I – Current Early Detection Best Practices (Moderator Marc Frischer)

- 9:00 Detection of juvenile settlers and adults – Current Best Practices (Vicki Milano)
9:20 Microscopy- and PCR-based detection and enumeration of Dreissenid larvae detection in the plankton – History and a primer (Marc Frischer)
9:40 Microscopic detection of zebra and quagga mussel larvae in plankton samples; best practices; advantages, disadvantages, and technical hurdles (Denise Hosler and Steve Wells)

10:00 BREAK

10:20 PCR detection of zebra and quagga mussel larvae in plankton samples; best practices; advantages, disadvantages, and technical hurdles (John Wood)

10:40 Comparison of PCR and Microscopy. Results to date of analysis of western waters and round robin double blind comparisons (Marc Frischer, Denise Hosler, Kevin Kelly).

11:00 Open Discussion. Immediate needs, best practice based on current methods. Future research needs.

11:30 LUNCH

Objective II – Current Western Early Detection and Monitoring Programs: Needs for a Comprehensive Regional Plan (Moderator Paul Heimowitz)

1:00 Introduction by moderator. Setting the stage, issues and challenges of establishing a comprehensive standardized western early detection plan. Explanation of choice of “representative speakers (Paul Heimowitz)

1:15 Southwest Region (Utah) Current detection and monitoring program. Needs for a comprehensive plan. (Larry Dalton)

1:30 Columbia River Basin/Missouri River Basin. Current detection and monitoring program. Needs for a comprehensive plan. (Eileen Ryce or someone else from the Columbia or Missouri River Basin)

1:45 California - Current detection and monitoring program. Needs for a comprehensive plan. (Ricardo De Leon)

2:00 Round robin discussion. Any participant who wishes to describe similarities and/or differences in monitoring programs (all workshop participants)

2:15 BREAK

2:30 Open discussion: Response to the issue and challenge of establishing a regional early detection program. Needs for a comprehensive monitoring program and the appropriate use of available detection technologies (microscopy and PCR). Discuss immediate and future needs for research.

Outcome: Develop a general outline for comprehensive monitoring plan.

Objective III – When is a water body infested? (Moderator Dave Britton)

4:00 Possible criteria and risk scale – Open Discussion (David Britton)

4:30 Vote (sticky dots)

5:00 Adjourn

DAY TWO - 22 January 2008

Objective IV – Develop consensus proposal for a comprehensive early detection and monitoring program for the western region

- 9:00 Review task objective and outcome. To draft the early detection component of the 2009 comprehensive monitoring plan (Moderator – Marc Frischer)
- 9:10 Current status of Western invasion (distribution of confirmed observations of adults and larvae) (Elizabeth Brown)
- 9:20 Conduct a discussion and develop as much of a consensus as possible on issues critical to drafting recommendation for a comprehensive early detection plan
1. Definition of the “Western Region”
 2. State vs. basin organizational structure
 3. Data reporting, intra-state and -agency communication and risk assessment
 4. Develop list of items where it was not possible to achieve consensus.
- Recommendation to the 100th Meridian group that additional efforts be made to make progress on those issues.
- 11:30 Adjourn to Lunch and 100th Meridian Meeting. Core committee will report to 100th Meridian meeting and attempt to quickly prepare a rough draft for distribution at that meeting.