Freshwater Mussels Working Group
Issues and Concerns
March 25, 2008

The Freshwater Mussels Public Working Group identified the following issues and concerns as being important considerations as they developed management goals and objectives for freshwater mussels for the period 2008 – 2023.

Conservation Issues and Points of Clarification

1. More research is needed on basic biology/life history of FW mussels
2. There are distribution gaps for most of the FW mussel species– mostly fine scale (vs. coarse)
3. Baseline Monitoring
   - Vigorous protocols are lacking
   - Statewide monitoring is overwhelming
   - Is there a body of theory that can work with just presence/absence data?
   - Current surveys are qualitative – presence/absence and relative abundance
   - Expensive and time-intensive to do quantitative surveys
4. Threats
   - Need to be better documented
   - Effects of climate change? *Margaritifera* potentially sensitive because of coldwater fish hosts
   - Toxins from cyanobacteria blooms?
5. Fish host movements/identification
   - Dams
   - Perched culverts – MDOT can help
   - Shouldn't we also be monitoring fish host populations?
   - Need more field (vs. lab) verified testing
   - Fish host lists should be refined to ID high value (successful) hosts
6. Water quality and aquatic habitat integrity – threats
7. Rare spp. mapping needs to be improved
   - GPS and GIS technology helps
   - Current surveys have "typical" but not standardized protocols
8. Landowner notification
   - Not yet in place
   - What are the protocols for when and where notification occurs?
   - Notification of species presence and management guidelines are needed
   - IFW needs a more standardized approach toward environmental review – region-specific review is variable
   - Consider a real-time, web-based environmental review tool
9. Need management standards and guidelines (and cooperative agreements) for managed water bodies
10. Riparian management standards are needed

11. Recommendations during incidental take process need to be standardized
    - Approx. 5-6 projects to date
12. Ditto above regarding relocation protocols
    - More research needed on this
    - Some literature exists to help
    - Post monitoring is key
13. What are the effects of dam removal on and significance of impoundments to Yellow Lampmussels and Tidewater Muckets?
14. Lack of public knowledge/appreciation of FW mussels
    - Life history message is powerful
    - Water quality filtering message is powerful
15. Invasive spp. (e.g., zebra mussels)
    - Need more proactive public messaging
16. No protection from commercial harvest
    - Mussels can be harvested in large numbers for sale to Biological supply companies, and they have (its not the companies doing the harvest, I believe, but more likely individuals selling to the companies)
    - MESA only protects 3 ET species from commercial harvest
17. Current Departmental funding for nongame efforts poor and getting worse
18. No comprehensive conservation strategy for mussels statewide – perhaps management system can serve this purpose
19. Disease – how much of an issue for FW mussels?
20. What other species or taxa could FW mussels be packaged with in our comprehensive planning? – Aquatic biodiversity compliments and priorities?
    - Aquatic reserve/focus area component needed for Beginning with Habitat program
    - TNC is starting a process of identifying high priority biodiversity waters in the State
21. Lack of strategy for reintroductions into historical waters – e.g., brook floater in Presumpscot and Dennys Rivers
    - Need to work out methods and techniques
    - Consider experimental reintroductions/restoration
22. Where does conservation genetics fit into the conservation strategy? Do we need more info before we translocate FW mussels?