**UMRCC Mussel Tech Section notes:**

**Date: 20 March, 2012**

**Chairperson and scribe: Scott Gritters**

Forty-five members attended including representatives of all the member state and most the partner federal agencies.

**Mussel Technical Committee changes from sub-committee:**

The Mussel Tech Section (MTS) is now indeed a fully fledged technical working group of the UMRCC. This follows years of being a sub-committee of the fisheries technical working group. Since the mussel sub-committee was so strong, long-lived and active it was thought somewhere in 2009 that it should be a separate technical section itself. After a year or so discussion it was decided to move forward on the matter. In 2011, the motion to move to a technical working group was favorably voted on in the fall fisheries technical meeting held in Florida, Missouri and by the Executive board during the fall conference call. UMRCC Coordinator Scott Yess reports that the bylaws will need a simple amendment to list the MTS.

**Chair Rotation issues:**

It was decided on at the meeting to have a two year rotation for the chairperson for the MTS. Past chairpersons of the mussel sub-committee were Ken Lubinski (USGS), Dave Heath (Wi DNR), Mike Davis (Mn DNR) and Gary Wege (USFWS). Scott Gritters replaced Gary Wege in 2009, and a served as chairperson till 2011 when the MTS became a fully fledged working group. Scott Gritters will remain chairperson of the MTS until 2013 when the chair will begin rotation. Gary Wege was nominated to determine a proper rotation schedule which was then given to coordinator Scott Yess. After next year’s spring meeting, the chair position will rotate to Illinois where Rich Lewis has accepted becoming the future chairperson for the MTS. After Rich, the chairperson will then rotate to Missouri in 2015 and 2016.

**Update on Mussel Symposium co-sponsored by UMRCC:**

Twenty presentations were made at the 2011 Midwest Fish and Wildlife Symposium held in Des Moines, Iowa. Jeremy Tiemann (INHS) and Scott Gritters (IA DNR) co-chaired this symposium entitled “The Good, the Bad and the Helpful”

The talks are listed below. UMRCC sponsored hotel bill to UMRCC members Teresa Newton and Nathan Eckert.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| State surveys | DeLorme | A two phase population survey of mussels in North Dakota |  |  |  |  |  |  |
| State surveys | Schainost | Freshwater mussels in Nebraska |  |  |  |  |  |  |
| State surveys | Angelo | Historical changes in the occurrence and distribution of freshwater mussels in Kansas |  |  |  |  |  |  |
| State surveys | Kurth | Freshwater mussels in Iowa |  |  |  |  |  |  |
| State surveys | Cummings | Changes in the freshwater mussel fauna of Illinois |  |  |  |  |  |  |
| Reintroduction | Eckert | Recent projects and progress of the mussel propagation |  |  |  |  |  |  |
| Reintroduction | Delphey | Conservation of winged mapleleaf |  |  |  |  |  |  |
| Management | Kelner | Reintroduction activities to conserve the federally endangered |  |  |  |  |  |  |
| Reintroduction | Gritters | The search for a "needle in a hayfield" |  |  |  |  |  |  |
| Reintroduction | Tiemann | Reintroduction of the federally-endangered northern riffleshell |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Management | McMurrary | Conservation and management of freshwater mussels |  |  |  |  |  |  |
| Management | Duyvejock | Freshwater mussel management on the upper Mississippi River |  |  |  |  |  |  |
| Management | Dunn | Long-term monitoring of six mussel beds in Pool 14 |  |  |  |  |  |  |
| Management | Newton | Water level management and native mussels |  |  |  |  |  |  |
| Management | Roe | Genetic struction intraspecific phylogeography |  |  |  |  |  |  |
| Other |   | Sowards | Assessment of cylindrical papershell populations in Kansas |  |  |  |  |  |  |
| Gastropods |   | Pyron | Ecological niche analysis of aquatic gastropods |  |  |  |  |  |  |
| Exotics |   | Perez | Origins and potential range of North American populations of the faucet snail |  |  |  |  |  |  |
| Exotics |   | Sandland | Utiling empirical and theoretical approaches to better… |  |  |  |  |  |  |
| Exotics |   | Luoma | Comparison of clearance rates and particle size selection of native unionids and zebra mussels |  |  |  |  |  |  |

**Summary of 19 March 2012 Mussel Coordination Team meeting:**

Meeting was held in La Crosse at the USGS lab the day prior to the UMRCC meeting. Three items were discussed at the MCT meeting including zebra mussels, winged mapleleaf issues and Higgins eye. Some highlights of the discussion is the zebra mussel veliger sampling will be discontinued on most main stem Mississippi sites due to funding reductions. These sites have been sampled for many years mainly during the summer months. Samples do indeed track the veliger zebra mussels but data has been unclear as to trends and mechanisms for high or low counts. Sampling on the tributary streams to the UMR will be maintained.

Prioritizing winged mapleleaf relocation sites was discussed. Since so few individuals have been produced to date, the MCT want to make sure a sound discussion of relocation sites is pursued.

Higgins eye reintroductions and surveys are ongoing and for the most part very successful. Genoa NFH still successfully culturing individuals in cages but success has varied. Free release inoculated fish has been very successful on the Wapsipinicon River in Iowa, with numerous adult Higgins eye’s recovered from the stocking program. Some now are gravid females. Young Higgins eye have been found around cage sites on the Wisconsin River at Prairie du Sac, Mike Davis updated the group on Upper Pool 2 search for young Higgins eye after adult relocations. Finally, the essential habitat area surveys (ESA) were discussed. The ESA’s in Pool 10 are very discouraging. The East Channel site by Prairie du Chien is once again declining as apparently is the Harpers Slough site. This falls on the tails of declines noted at the McMillan Island site noted last year.

**Corps O and M and EMP monitoring:**

Dan Kelner updated the group on a potential O & M site at Boulanger bend in Pool 2 concerning the potential of a main channel barge cutoff along that site. The Capoli EMP project in Pool 9 is about ready to commence and all mussels in “harms way” have been relocated. It was surprising to note that many fewer Higgins eyes were found than expected at the site. Finally, Dan updated the MTS on a project for the Ho-Chunk Nation and a bank stabilization site for Native American mounds. Stabilization of the site may impact a think vein mussel be in that location.

**Mussel re-introductions:**

Two mussel relocation projects may commence in the near future and UMRCC members Jon Duvejonck and Mike Coffey both with the USFWS are the leads. One project involved the pistolgrip or bullhead mussel. Attempts will be made to propagate this species from stockpiles made on the Iowa River near Iowa City. This Iowa City stockpile appears to be one of the last remaining strongholds for this species in the area. Pistolgrips use flathead catfish as their hosts and the hatcheries at Genoa, Fairport and Excelon Power many all be involved in the culture of these critters. The pistolgrip populations have been decimated in recent history on the UMR and no one is really sure why.

A second introduction involved the fat pocketbook. This is a federally endangered mussel with still lives in the Ohio River and in the St. Francis River in Missouri. Sites will be discussed and it is hoped to begin reintroduction around the Pool 15 area of the UMR in the near future.

**MN statewide surveys:**

Mike Davis updated the group on the Minnesota mussel database and surveys going on presently. They are working on the Cannon watershed right now. Mike also updated the group on the successful culturing of the snuffbox mussel and relocation plans for that species.

**Impacts of Dams:**

This topic was sent to the UMRCC chairperson as a potential discussion item. Even though dams and dam removal issues are largely an off- UMR issue it was felt that this item needed more discussion at a future MTS meeting. Especially with the invasive carp issue and the hydropower issue the membership felt we could give this topic its due diligence at the next spring meeting. Hoping this discussion moves into a workshop event at a future FMCS meeting possibly.

**Snuffbox, sheepnose and spectacle case Federal listings:**

Phil Delphey and Kristen Lunhd gave an update to the group on snuffbox, sheepnose and spectaclecase listings. Below is an excerpt from their 2012 news release:

On March 13, 2012, the U.S. Fish and Wildlife Service published a rule in the Federal Register listing two freshwater mussels, the sheepnose (*Plethobasus cyphyus*) and the spectaclecase (*Cumberlandia monodonta*), as endangered under the U.S. Endangered Species Act (ESA) of 1973.

The sheepnose occurs in 25 streams, down from 76, a 67 percent decline. Very few of these populations are known to be reproducing. Sheepnose are currently found in Alabama, Illinois, Indiana, Iowa, Kentucky, Minnesota, Mississippi, Missouri, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and Wisconsin. In Iowa the sheepnose is found in the Mississippi River.

The spectaclecase once occurred in at least 44 streams but now occurs in 20 streams, a 55 percent reduction in the number of occupied streams. Of the 20 remaining populations, six are represented by only one or two known specimens each. Spectaclecase mussels are currently found in Alabama, Arkansas, Illinois, Iowa, Kentucky, Minnesota, Missouri, Tennessee, Virginia, West Virginia, and Wisconsin. In Iowa the spectaclecase is found in the Mississippi Rivers.

For additional information about the sheepnose and spectaclecase mussels, go to [www.fws.gov/midwest/endangered](http://www.fws.gov/midwest/endangered).

 **Mussel sampling standardization.**

Jon Duyvejonck is leading an effort to try standardizing what is required to be sampled in a permit situation. A sub-committee was formed to look over the draft that Jon has prepared and provide comments.

Sub-Committee members include:

Heidi Dunn

Don Baker (Mn DNR)- volunteered by Mike Davis

Don Helms- already provided some comments

Dave Heath- WI DNR

Travis Moore- MO DOC

Rich Lewis- Illinois DNR

Scott Gritters- Iowa DNR

**Mussel Community Assessment:**

Heidi Dunn gave a very fine talk on metrics to determine the health of a mussel “bed”. Heidi identified 10 metrics that were robust and non- repetitive that could classify mussel aggregations into such classifications such as good, fair and poor when compared to other areas. In trial runs very few aggregations rate similarly for all metrics studied but good or poor beds seem to fall out similarly with when all 10 metrics are evaluated. One use of this assessment would be to determine when a permit situation is impacting a significant mussel resource.