

The UMRCC Newsletter



Spring 2014

This Newsletter is a publication of the Upper Mississippi River Conservation Committee but does not necessarily represent the official views of the UMRCC. Suggestions or comments regarding its content should be directed to the Chairperson, 555 Lester Avenue, Onalaska, Wisconsin 54650. Phone: (608) 783-8432. E-mail Coordinator at umrcc@mississippi-river.com. Visit our website at <http://www.mississippi-river.com/umrcc>.

Chair's Letter

I would like to talk about stakeholders. We all work with stakeholders. We are all stakeholders. In January Mississippi Interagency Cooperative Resource Association (MICRA) held a stakeholder workshop for State fishery chiefs and State agency administrators. For me it was very enlightening. We spent a fair amount of time talking about decisions and perceptions of buy-in by stakeholders. It is clear that sustainable decisions are decisions those stakeholders feel are fully vetted in partnership. Decisions that are not fully vetted are full of pitfalls that lead to unsustainable decisions that are reversed. The chiefs and administrators discussed this with an eye on our client and the politics of good decisions. As we think about the people that started the UMRCC so many years ago and the people that were instrumental in things like EMP, partnerships and shared decision making were of the utmost importance. In fact the congressional record for EMP states that this is a **partnership** program. Does that mean if it is not a partnership it is not a viable program anymore? The problems with partnerships are they are very difficult. We all would like to be the ultimate decision maker. But, that is not realistic. The benefits of a partnership approach are that through deliberations, give and take, the tough decisions, we can arrive at a better more equitable, sustainable, decision than could be derived by acting alone. Of course partnership dialogs are hard and take time. Consensus is sometimes the hardest thing. Look at DC. Even on the river we all know it is hard to set aside the things we don't agree on to find the things we do. We need to try harder.

Ron Benjamin

River Resource News

SHORT COMMUNICATION PATTERNS OF FISH PASSAGE IN THE UPPER MISSISSIPPI RIVER

By - *S. TRIPP, R. BROOKS, D. HERZOG AND J. GARVEY*



Dams have been implicated in the alteration of natural river processes. Quantifying spatial and temporal movement and passage patterns of large river fishes are critical for determining the extent of restricted passage and the needs for fish passage improvements. However, limited information regarding this topic exists because of the inherent difficulties associated with large river systems and assumptions associated with movement studies. Because of this lack of information, we investigated broad scale passage patterns of several riverine fish species through seven locks and dams complexes of the Upper Mississippi River using telemetry.

Over the course of our 5-year evaluation, we observed species-specific movement and passage patterns, and how these trends were affected by factors such as water level and lock and dam management. Stationary receivers placed in a monitoring array detected a total of 1036 passage events. Eighty-four percent of the passage occurred through all but one of the lock and dam

structures during both open and closed river conditions.

While 70% of the passage occurred during open river conditions, further investigation of passages that occurred during closed river conditions (when gates are extended into the water column at some level) revealed that the majority of passage occurred when the average opening for all gates ranged from 0.6 to 1.2 m.

Lock usage was also quantified, and most species were not routinely using the lock chambers for passage. Ultimately, these data have shown that individuals of each study species were able to negotiate most of the locks and dams during open and closed river conditions in both directions.



The Next Step in Stopping Invasive Species: New Boat Designs

Industry experts will discuss how manufacturing may play a role in stopping the spread of aquatic pests. The battle to protect Minnesota's cherished lakes and rivers from ruinous invasive species such as zebra mussels has for years focused on cleaning and inspecting boats. Now that high-stakes fight is shifting to boat design. This week leaders in the boating industry will gather in Washington, D.C., to take the extraordinary step of examining how boats could be redesigned in ways that would make it harder for the aquatic pests to hide, even as inspections intensify for Minnesota's 2.3 million boaters.

Gabriel Jabbour, a boat manufacturer who owns four marinas on Lake Minnetonka, has been one of the loudest voices calling for a fresh look at boat design. "These are time bombs and they are a liability to the owners," he said. "I believe this is a major consumer issue that no one is paying attention to." On Wednesday, the American Boat and Yacht Council, which develops widely used safety standards, will ask a national task force led in part by the U.S. Fish and Wildlife Service to bring together everyone from boat builders to scientists to draft design standards to slow the spread of aquatic invasive species. "I don't think it's been on their radar," John Adey, the council's president, said about manufacturers. "There could be simple solutions we haven't thought about." For instance, on pontoons — the fastest-growing sector of the boating industry — it's increasingly popular to have lifting strakes that run along the side to help it go faster and turn, allowing water skiing or tubing.

But that same part is often sealed at one end and left with a tiny drainage hole at the other end that fingernail-sized zebra mussels can get into, multiply rapidly and be difficult — if not impossible — to flush out. That kind of pontoon, if placed on Lake Minnetonka, may never be able to leave it since it's illegal to transport contaminated boats. "The boating industry has been saying 'we make boats, you clean them,'" said Jabbour, who's on a state Department of Natural Resources committee on aquatic invasive species. "But with some minor modifications, we could make an enormous stride in the time it takes to wash and inspect boats." While some manufacturers may not welcome design changes, it's something Bob Menne says he's been doing for years. He is the owner of Wyoming, Minn.-based Premier Marine, the fourth-largest pontoon manufacturer in the nation and the only one, he said, to weld strakes and keels to keep out zebra mussels.

In Minnesota, invasive species aren't just an annoyance but a threat to property values and the livelihood of many resorts and other business that depend on pristine lakes. Zebra mussels, perhaps the most dreaded invasive species in Minnesota, can attach to boats, docks, rocks, native clams and other solid surfaces. They proliferate by the millions, cluttering beaches with razor-sharp shells, clogging motors, changing the habitat for fish and insects, and jamming intake pipes for water. Lake Minnetonka is one of about 40 state lakes and rivers infested with zebra mussels; the DNR suspects another 100 waterways connected to them also are infested. But there are several other invasive species here, and more are expected to come. That threat has triggered increasing



inspections at boat launches and roadside checkpoints, educational campaigns and other efforts to limit the spread. While those measures are valuable, Jabbour said, the next step needs to include boat builders. At Tonka Bay Marina on Lake Minnetonka, he pointed to water that shoots out of motors that could be self-draining, as well as the crevices of a fishing boat that he said could be welded together. “The boats coming in better be easier to deal with,” he said. The state DNR agrees and sent a letter to the national task force to support looking at boat designs. The DNR’s Ann Pierce said they’ll also be studying this summer the risk that residual water poses and how it can be minimized.

Menne, who’s on the board of the National Marine Manufacturers Association, said he will bring up the issue at a Washington meeting Monday. “It’s a high priority in Minnesota,” he said. “If [boat manufacturers] want to sell their products in Minnesota, they are going to have to make some changes.” Leaders of Menne’s group and the Water Sports Industry Association say they prefer looking into voluntary design standards that companies can phase in over time instead of new government regulations. “It serves our best interest for boaters to have a boat design that makes it easy to follow the [decontamination rules],” said David Dickerson of the marine association. “We want to make it simple for the boaters.”

One product that’s being tested on wakeboard boats, which collect extra water to create huge wakes, filters water to keep microscopic zebra mussel larvae and other invasives out. But that’s just one solution to one type of boat. Industry experts say it will take bringing the entire industry, government groups and environmentalists together to address such a widespread problem. “This is a national issue and frankly, it’s an international issue,” said Michael Hoff, the Fish and Wildlife Service’s Midwest aquatic invasive species program coordinator. “Every corner of every state is potentially impacted by better boat standards.”

Article by: KELLY SMITH , Star Tribune

Invasive Carp Update

The FWS La Crosse FWCO is trying to improve the transfer of information regarding invasive carp monitoring, actions, and noteworthy events that occur on the UMR. If you have something to report or you are working on a project that we are not already aware of, please drop an email message to Ann Runstrom, ann_runstrom@fws.gov. We will distribute information on to a larger group of folks interested in all things invasive carp on the UMR. There are some concurrent research projects underway in the UMR. I apologize for any that I have neglected to include here. The plan is to continue to generate similar reports from Pool 12 to 19, and Pool 20 down to the Middle Miss.

What is the buzz about eDNA?

Because of the experience in invasive carp control and monitoring efforts in the Chicago Area Waterway System, eDNA is no longer used to trigger a rapid response action. Low levels of invasive carp eDNA do not always represent the presence of a live fish. Sampling repeatedly in the same area over a period of time is now known to be the appropriate application of eDNA as an early detection monitoring tool. This establishes baseline data and identifies normal variability. Significant changes in the data trend can be detected with repeated sampling if fish move into the sampling area. Probability models are currently being developed by the eDNA calibration study (ECALS) team to develop some confidence associated with presence or absence of live fish depending on the levels of eDNA collected. Additionally, the FWS and USGS are conducting exploratory research with eDNA sampling at low, medium and high invasive carp densities to determine detection levels relative to abundance (Emy Monroe, personal communication). Monitoring the extent of the presence front of invasive carp can be conducted most efficiently through the use of environmental DNA (eDNA) technology. At stray and extremely low densities of the presence front, monitoring with traditional gear has a high probability to yield no catch of the target species, while eDNA monitoring through time can detect low levels of eDNA and changes in those levels when fish become present.

The Fish and Wildlife Service is proposing the following sampling plan for the UMR. Samples will be collected by the La Crosse FWCO and processed at Whitney Genetics Lab, 50 samples per site, 4 sites per pool. All Pools will be sampled in June. Pools with positive results will be sampled again in 2014.

- Pool 5A
- Pool 8
- Pool 9

The following sites will be sampled and archived by FWS for University of Minnesota Aquatic Invasive Species Research Center (MAISRC)

- St. Croix River near Taylors Falls
- Near Lock and Dam 1
- Pool 5A

TRADITIONAL FISHERIES MONITORING

There is also a significant amount of traditional gear sampling planned to target Asian carp. This is brief summary of activities from Coon Rapids Pool and the St. Croix River down to Pool 12

ICTHYOPLANKTON

Egg and larvae sampling will be conducted by Minnesota DNR at the following sites:

- St. Croix River
- Pool 2
- Pool 3
- Pool 6

Egg and larvae sampling will be conducted by USGS at the following sites:

- Pool 8 (Lake City DNR may assist)
- Pool 9
- Pool 10
- Wisconsin River
- Pool 12
- Pool 14
- Pool 16
- Pool 19 2 sites

YOUNG OF YEAR

Young of year sampling by Minnesota DNR – East Metro will be conducted at the following sites:

Pool 2

St. Croix River

Minnesota River

Young of year sampling by Minnesota DNR – Lake City will be conducted at the following sites

Pools 3

Pool 4

Pool 5

Pool 5A

Pool 6

Pool 7

Upper Pool 9

Young of year sampling by FWS La Crosse FWCO will be conducted at the following sites

Pool 9

Pool 10

Pool 11

ADULT SAMPLING

Minnesota DNR – East Metro will target adult invasive carp and native species using multiple gears in the following areas:

St. Croix River

Pool 2

Pool 3

Minnesota DNR also has a commercial fishing contract in place to utilize the expertise of local fisher for sampling invasive carp as needed and where specified.

TELEMETRY

FWS La Crosse FWCO placed 38 acoustic receivers from pool 19 up to pool 11 (i.e., 232 river miles), inside lock chambers, and also in a few backwaters. Receivers were also placed in the Skunk, Wapsipinicon, and Iowa rivers. In April 2014 a total of 23 bighead and silver carp from Pools 17 and 18 were implanted with transmitters. With fish tagged in 2013, we now have 50 acoustic tagged fish. Additional receivers will be installed from pool 11 up to pool 5 after water levels recede. Up to 100 additional transmitters will be implanted in fish from Pools 16 up to 12. If we are unsuccessful at capturing Asian carp in these pools, we will shift our effort into Pool 17.

Minnesota DNR has also implemented an acoustic tagging study on native species with some aspects of life history similar to or in competition with invasive carp. In 2013, 50 receivers were deployed in the Minnesota, Mississippi, and St. Croix rivers. Thirty-four of them were in a 63 river mile stretch of the Mississippi River, spanning multiple pools. One was deployed in the Coon Rapids Pool, one in the Upper St. Anthony Falls Pool, five in Pool 1, 23 in Pool 2, and four in Pool 3. The remaining 16 were deployed in the Minnesota (four) and St. Croix (12) rivers. In 2013, 92 transmitters were implanted in smallmouth buffalo, common carp, freshwater drum, paddlefish, flathead catfish, shovelnose sturgeon, lake sturgeon, and white bass. Flood conditions in 2014 have delayed plans to tag additional fish with acoustic transmitters. Only one white bass and one paddlefish in the St Croix and three freshwater drum in Pool 2 were implanted with transmitters. Plans for 2014 include implanting 10 muskellunge with temperature and pressure sensor tags in the St Croix River this year (paid for by Muskies Inc.)

Missouri Department of Conservation has arranged and installed receivers on commercial navigation vessels. These vessels travel from St. Paul to New Orleans.

POPULATION DYNAMICS

Iowa State University has a population dynamics study in Southeast Iowa focusing efforts in the SE part of Iowa in the Cedar, Iowa, Skunk, and Des Moines rivers and Mississippi River sampling for eggs, larvae, juveniles, and adults.

ISOTOPE ANALYSIS

Numerous agencies and individuals are cooperating on isotope studies with invasive carp. USGS UMESC is in the water analysis stage of a study to identify the isotope signatures at various sites throughout the UMR. Otoliths will be analyzed to try and identify the geographic life history of invasive carp collected. Depending on the location of the collection, we would like to acquire the otolith of any invasive carp collected. For black and grass carp, we would also like to collect the eyeballs (for ploidy analysis). Otoliths are easy to remove if you know where to make the initial cut. If you are unsure of your skills, we can make arrangements to get the specimen from you and remove them ourselves. Contact Ann Runstrom at 608-769-7481 or ann_runstrom@fws.gov

NOTEWORTHY EVENTS

Wisconsin DNR recovered an invasive carp from Pool 12 (from the fishing barge just below L&D 11) on April 12, 2014. It was a gravid female silver carp weighing 21.8 pounds and measured 36 inches. La Crosse FWCO collected otoliths for age and isotope analysis and vertebrae for Duane Chapman with USGS.

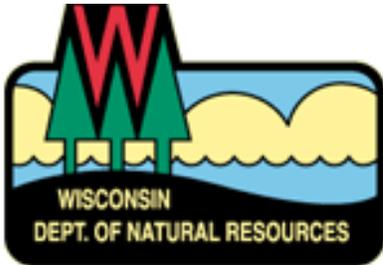
A commercial fisherman captured a black carp near Thebes, IL on March 8, 2014. We received the eye from Jim Lamer, WIU, and delivered it to Whitney Genetics Lab where flow cytometric analysis indicated the black carp (14-006-01) was diploid.

A quick check on the St Paul District water control website indicates Pool and tailwater elevation at Lock and Dam 5 have been less than 1 foot (gates pulled, open river) May 3-May 9 and from May 14 through today (May 20). L&D 8 was in open river conditions from April 16-23 and from April 29 through today (May 20). L&D 2 has remained in control with the lowest head at 1.4' on May 4. It looks like a good year for fish movement.

Sent in by Ann Runstrom - FWS

Coordinator Comments

Wisconsin Hosts the 70th Annual UMRCC Meeting



The Wisconsin DNR staff, led by Ron Benjamin, went out of their way to make sure the 70th Annual Upper Mississippi River Conservation Committee Meeting a huge success. All aspects of the meeting were carefully planned and well thought out. This year's meeting was held in beautiful La Crosse. At the general session presentations were given by a host of invited presenters which focused on the Upper Mississippi River Comprehensive Master Plan.

The highlight at the banquet was the Conservation Award which was presented to Gary Swenson (USACOE). This is the highest honor the UMRCC presents to individuals that have excelled in their efforts to make the Upper Mississippi River a special resource.

Gary's professional career on the Mississippi River began in 1989 as a forester in the Natural Resources Management Section of the Corps' Mississippi River Project in Pleasant Valley, Iowa. Although Corps involvement in timber management on Mississippi River floodplains of that region had been on-going since the mid-1940s, Gary stepped into a relatively new forestry program with a new set of goals that placed primary emphasis on

sustaining forested habitat for wildlife rather than producing forest products.

Gary provided forestry input to the Environmental Management Program (EMP) and more specifically the Habitat Rehabilitation and Enhancement Projects (HREP) over the years including those like Odessa, Huron Island, Gardner Division, and many more. HREPs (even perhaps regionally) have seen additional forest emphasis over the years we think in part due to Gary's leadership and work on the subject.

Gary has been a very active participant in UMRCC activities as will be confirmed by issuance of a 25-year River Rat Award at the 2014 Spring Meeting. He has organized and hosted forestry field tours as part of Wildlife Technical Section meetings, provided forestry presentations at annual meetings, provided staff planning and field support for Vegetation Ad Hoc Committee pool vegetation surveys, allowed staff to serve as Vegetation Ad Hoc Committee chairs, and co-authored the 2002 UMRCC report entitled, Upper Mississippi and Illinois River Floodplain Forests: Desired Future and Recommended Actions.

The Corps NESP Program offered another opportunity to emphasize floodplain forest management needs along the Upper Mississippi River. And again, Gary was in the forefront when the interagency Forestry Product Delivery Team was formed and embarked on a multi-year effort to produce the Upper Mississippi River Systemic Forest Stewardship Plan.

Starting in 2007, the scope of Gary's Mississippi River influence expanded beyond forest and other environmental stewardship to include management of Corps-operated and out granted recreation facilities from Pools 11 to 22. As Chief of the Mississippi River Project Natural Resource Section, Gary was responsible for staffing and management at 26 recreation areas that included 6 class A campgrounds, nearly 600 campsites, many day-use areas, and boat ramps. Gary supported staff participation in the OREIT Technical Section.



Gary Swenson Conservation Award recipient at the 70th Annual Meeting

Gary's efforts also had regional and national impacts to Corps natural resource projects by his service as the Mississippi Valley Division Environmental Stewardship Business Line Manager and member of the Corps' national level Stewardship Advisory Team. Congratulations Gary!

This year we also want to extend our thanks to the out-going Chair **Kevin Irons** and Tech Chairs; from Wildlife – **Megan Moore**, Fish – **Travis Moore**, Water Quality – **Louise Hotka**, OREIT – **Cindy Samples** and Law Enforcement – **Tyler Strelow**. Each of these individuals worked extremely hard to make a difference on the River and added these duties to an already full workload.

The UMRCC Annual Meeting is held each year in March. The location rotates amongst the five member states – Wisconsin, Minnesota, Iowa, Illinois and Missouri. Each state puts their best foot forward when hosting the annual meeting and there are always outstanding presentations. In addition to the general session each Technical Section (Fish, Wildlife, Water Quality, Law Enforcement, Recreation, and Mussels) holds a meeting. Issues pertaining to these sections are reported on and action items are developed.

Action Items from the Annual Meeting

- Define Grant Application
- Print Mussel Handbooks
- Update Website
- Distribute Field Trip Grants

Congressional Action Related to the Upper Mississippi River



Climate Change

Bill # H.R. 4393, [Jeff Fortenberry \(NE\)](#)
To prohibit any Federal agency or official, in carrying out any Act or program to reduce the effects of greenhouse gas emissions on climate change, from imposing a fee or tax on gaseous emissions emitted directly by livestock.

Bill # S.1905, [Joe Manchin \(WV\)](#)
Bill # H.R. 3826, [Ed Whitfield \(KY\)](#)
To provide direction to the Administrator of the Environmental Protection Agency regarding the establishment of standards for emissions of any greenhouse gas from fossil fuel-fired electric utility generating units, and for other purposes.

Bill # S. 1230, [Ron Wyden \(OR\)](#)
A bill to reduce oil consumption and improve energy security, and for other purposes.

Bill # S.2242, [Sheldon Whitehouse \(RI\)](#)
A bill to amend the Federal Water Pollution Control Act to reauthorize the National Estuary Program, and for others purposes.

Conservation

Bill # H.R. 1825, [Dan Benishek \(MI\)](#)
To direct Federal public land management officials to exercise their authority under existing law to facilitate use of and access to Federal public lands for fishing, sport hunting, and recreational shooting, and for other purposes.

Endangered Species

H.R. 3533, [Mark Amodei \(NV\)](#)
Bill # S. 1731, [Rand Paul \(KY\)](#)
A bill to amend the Endangered Species Act of 1973 to permit Governors of States to regulate intrastate endangered species and intrastate threatened species and for other purposes.

Invasive Species

Bill # H.R. 709, [Keith Ellison \(MN\)](#)
To authorize the Secretary of the Army to take actions to manage the threat of Asian carp traveling up the Mississippi River in the State of Minnesota, and for other purposes.

Bill # H.R. 996, [Louise Slaughter \(NY\)](#)
To establish an improved regulatory process for injurious wildlife to prevent the introduction and establishment in the United States of nonnative wildlife and wild animal pathogens and parasites that are likely to cause harm.

Bill # H.R. 1823, [Joseph Heck \(NV\)](#)
To amend title 18, United States Code, to prohibit the importation or exportation of mussels of a certain genus, and for other purposes.

Invasive Species Continued

Bill # H.R. 3994, [Rob Bishop](#) (UT)

To improve the control and management of invasive species that threaten and harm Federal lands under the jurisdiction of the Secretary of Agriculture and the Secretary of the Interior, and for other purposes.

Bill # H.R.4001, [Candice Miller](#) (MI)

To authorize the Secretary of the Army to carry out certain activities to prevent the interbasin transfer of aquatic invasive species between the Great Lakes and Mississippi River, and for other purposes.

Water Resources

Bill # S.601, [Barbara Boxer](#) (CA)

Bill # H.R 3080, [Bill Shuster](#) (PA)

To provide for improvements to the rivers and harbors of the United States, to provide for the conservation and development of water and related resources, and for other purposes.

H.R. 2609 [Rodney Frelinghuysen](#) (NJ)

Energy and Water Development and Related Agencies Appropriations Act, 2014 - Makes appropriations for energy and water development and related agencies for FY2014.

CALENDAR

Meetings, Conferences and Events

LMRCC Annual Meeting
July 15 & 16, 2014
Memphis, TN
Memphis, TN

UMRBA Meeting
August 5, 2014
UMRR-EMPCC
August 6, 2014
East Peoria, IL

UMRCC Fall Fish, Wildlife and
Mussel Tech Sections Meeting
Sept. 8-10 2014
Wylusing State Park, WI

UMRCC Water Quality Tech Section
Muscatine, Iowa
Date – TBD

See www.big-river.com/br.calendar.html for additional interesting events on the UMR!

Training/Workshops

Check out the FWS National Training Centers Web Site at training.fws.gov

Coordinators Quiz

The Winter Newsletter quiz question was: **What year did the U.S Fish Commission begin fish rescue work?**

Answer –1889 sent in by Mark Cornish, who donated the prize to the UMRCC raffle, thanks Mark!

The Quiz Question for the Spring Newsletter is – **What furbearer species was so popular in the early to mid-1800's that resulted in a written record stating it was seldom seen in Illinois and depleted along some Wisconsin tributaries to the Mississippi?** The first correct answer emailed to Scott_yess@fws.gov will receive a \$10 gift certificate.



UMRCC Chair

Ron Benjamin – Wisconsin Delegate - Wisconsin DNR - La Crosse, WI

Executive Board

- Martin Konrad – Iowa Delegate - Iowa DNR - Des Moines, IA
- Janet Sternburg – Missouri Delegate - Missouri DOC - Jefferson City, MO
- Brad Parsons – Minnesota Delegate - Minnesota DNR – St. Paul, MN
- Kevin Irons – Illinois Delegate - Illinois DNR - Springfield, IL
- Bernie Schonhoff – Secretary/Treasurer - Iowa DNR - Fairport, IA
- Scott Gritters – Fish Section Chair – Iowa DNR – Bellevue, IA
- Mike Griffin – Wildlife Section Chair - Iowa DNR – Bellevue, IA
- John Olson – Water Quality Section Chair – Iowa DNR – Des Moines, IA
- Jennifer Lancaster – Law Enforcement Section Chair - Iowa DNR – Manchester, IA
- Ron Benjamin – OREIT (Recreation) Section Chair – Wisconsin DNR – La Crosse, WI
- Rich Lewis – Mussel Section Chair – Illinois DNR – Springfield, IL
- Tim Yager – Refuge Observer - Fish & Wildlife Service - Winona, MN
- Scott Yess – Coordinator - Fish & Wildlife Service - La Crosse, WI

The Upper Mississippi River Conservation Committee (UMRCC) was established in 1943 with the goal to: “Promote the preservation and wise utilization of the natural and recreational resources of the Upper Mississippi River and to formulate policies, plans and programs for conducting cooperative studies”.

Send comments and items for future editions to:

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