Fish and Wildlife Working Group
August 19th, 2020, 8:00-11:00

Attending:
IA DNR: Kirk Hansen, Karen Osterkamp
MN Audubon/USFWS: Andy Beebe
MN DNR: Neil Rude, Brandon Schad, Kevin Stauffer
UMRBA: Andrew Stephenson
USACE: Steve Clark, Angela Deen, Karen Hagerty, Jon Hendrickson, Zachary Kimmel, Aaron McFarlane, Andy Meier, Marshall Plumley, Jon Schultz, Elliott Stefanik
USFWS: Erin Adams, Sharonne Baylor, Stephanie Edeler, Jennifer Froehly, Cheryl Groom, Neal Jackson (UMRCC), Tim Miller, Billy Reiter-Marolf, Rebecca Neeley (Fisheries), Steve Winter, Wendy Woyczik
USGS: Jennifer Dieck, Danelle Larson, Teresa Newton, Jason Rohweder, Jennifer Sauer
WI DNR: Andrew Schneyer

Bottomland Forests and Forestry Activities in the St. Paul District – Andy Meier (USACE) and Andy Beebe (MN Audubon/USFWS)

Comment from Andrew Beebe (MN Audubon/USFWS): Contractors might not scoff at $15,000/acre.

Comment from Kirk Hanson (IA DNR): Referring to slide #8, it's notable how important hackberry was to migrant warblers and that might indicate we should utilize it more in restoration plantings.

UMR Asian Carp Team Overview and Update – Neal Jackson (USFWS/UMRCC)

Comments from Karen Hagerty (UMRR LTRM)
The UMRR LTRM fisheries data, in place about 30 years, has served as a pre-invasion dataset in the La Grange pool. This monitoring has documented reduced body condition in native planktivores as Asian carps biomass increased. conversely, the intensive harvesting of Asian carps by the IL DNR has resulted in improved body condition more recently. The LTRM data can also be used for pre-invasion data in Pools 13, 8, and 4. Two UMRR LTRM publications documenting the effects of Carps on native fishes are:

Solomon, L. E., R. M. Pendleton, K. A. Maxson, J. N. McQuaid, D. K.Gibson-Reinemer, C. A. Anderson, R. L. Anderson, E. G. Lampo, J. T. Lamer, and A. F. Casper. 2019. Status, trends, and population demographics of selected sportfish species in the La Grange Reach of the Illinois River. Illinois Natural History Survey Bulletin 42:2019002. DOI 10.21900/j.inhs.v42.216.

Solomon, L. E., R. M. Pendleton, J. H. Chick, and A. F. Casper. 2016. Long-term changes in fish community structure in relation to the establishment of Asian carps in a large floodplain river. Biological Invasions 18:2883–2895. DOI 10.1007/s10530-016-1180-8.

All UMRR LTRM publications can be found here:
https://umesc.usgs.gov/reports_publications/ltrmp_rep_list.html

Question from Andrew Stephenson (UMRBA): Referring to slide #20, do larger fish in the Pool 19 and pools above that 19 indicate that larger fish are more capable of bypassing the Lock and Dam?

Response from Neal Jackson (USFWS/UMRCC): My gut feeling is no, but I'm not sure. Remainder of response wasn't captured by the note-taker.

Flowering Rush (aquatic invasive plant species) – Danelle Larson (USGS/LTRM), Steve Winter (USFWS), Jennifer Froehly (USFWS), Erin Adams (USFWS), Billy Reiter-Marolf (USFWS).

Comment from Karen Hagerty (UMRR LTRM): Danelle Larson is the new UMRR LTRM aquatic vegetation principle investigator (at UMESC). Response from Danelle Larson (USGS LTRM): Thanks for the introduction, Karen. I promise I did not bring Flowering Rush with me within the past year. Not guilty!

Comment from Kirk Hanson (IA DNR): On Pool 12 flowering rush is pretty much everywhere there is emergent vegetation. Kyle Bales (LTRM/IA DNR) has described the situation in Pool 13 similarly. Kirk saw a few plants in Pool 12 in 2014 but not in subsequent years until 2020. But all emergent vegetation has seemed to be doing well this year (2020). Kirk seems to see flowering rush on the edges of emergent vegetation patches/stands.

Comment from Jennie Sauer (USGS/LTRM): Because the aerial imagery is being obtained for the 2020 Land Cover/Land Use data layers, there is the potential to detect signals specific to flowering rush. A key factor is the minimum mapping unit of 1 acre. Response from Erin Adams (USFWS): there are probably several stands/patches in Pool 8 that are at least 1 acre.

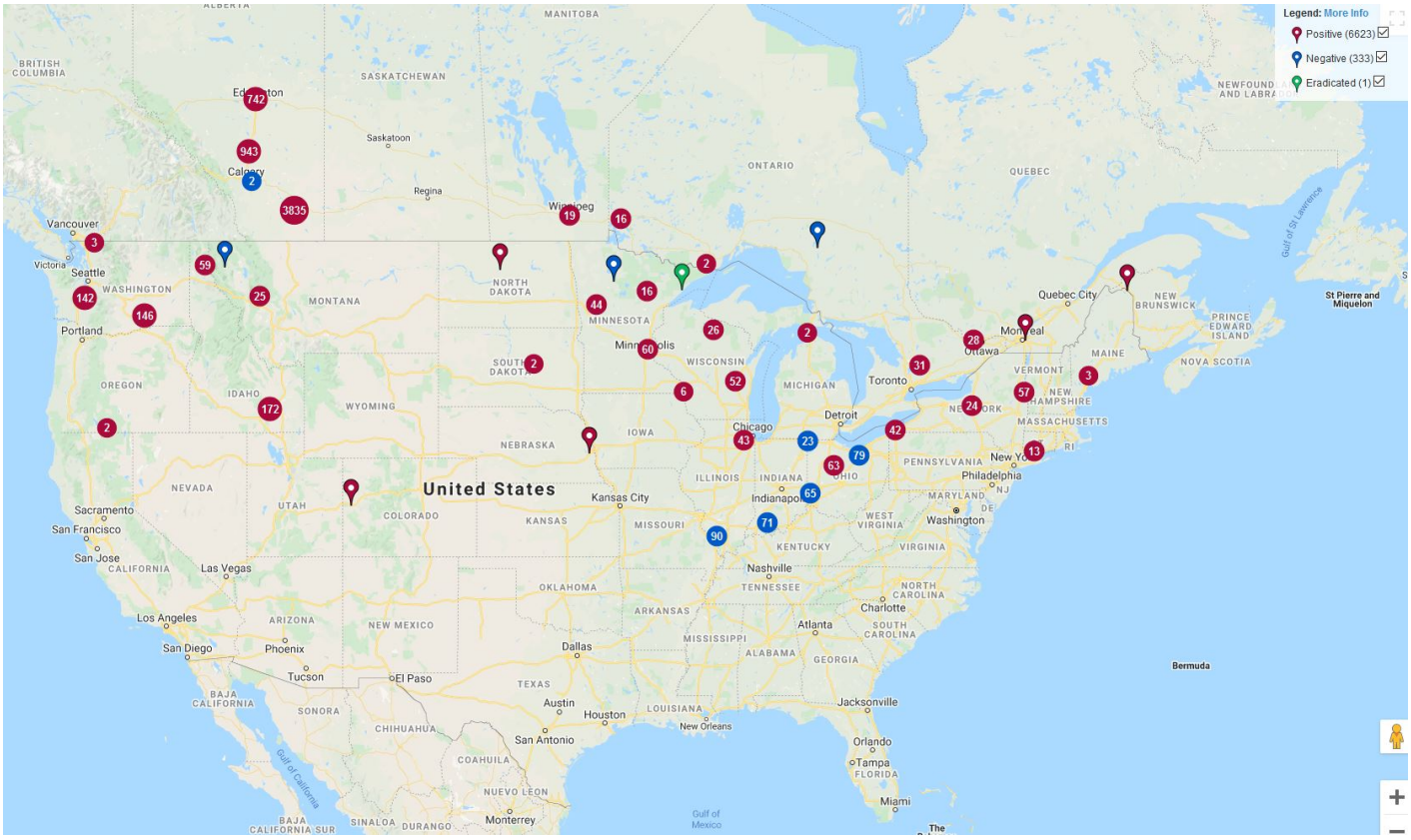
Question from Neal Jackson (USFWS/UMRCC): Did flowering rush really spread so much in the very short time of 2019 to 2020, or was its abundance fairly similar in the recent years but the amount of flowering in 2020 was much greater, making it much more noticeable? Response from Danelle Larson (USGS) provided after the meeting: We have some evidence from the LTRM dataset that there was increased spread and increased abundance in year 2020; specifically, the LTRM "SRS" (stratified-random selected) sites had flowering rush detected for the first time in the 22-year record at 5 out of 450 sites in Pool 8. However, the LTRM land cover datasets showed flowering rush in the Upper River System since at least 2010. The increased search efforts for the distinguishable flowering plant in year 2020 would increase detection and awareness. The past abundance and distribution of the plant is not well understood, although LTRM has historic land cover data that could be analyzed for flowering rush to better address this question.

Question from Neal Jackson (USFWS/UMRCC): What are some thoughts on the costs vs benefits of control efforts, relative to how widespread and abundant it is or may be? Response from Danelle Larson (USGS) provided after the meeting: A strategic analysis of the LTRM's land cover data from years 1989, 2010, and 2020 would provide information on the abundance and distribution of flowering rush. Field notes from multiple LTRM staff suggest that flowering rush was common in Pool 12 since at least year 2010. Current field mapping by various agencies are beginning to show widespread distribution in Pools 4, 7, 8, and 13 (the pools searched thus far). Detailed mapping of the past and present distribution of flowering rush could help prioritize management and control efforts, predict future spread, and assess the impacts to native plant diversity.

Question from Karen Hagerty (UMRR LTRM): Are there restoration practices that maybe should be avoided? Response from Jennifer Froehly (USFWS): Maybe the use of mud motors or other similar things that stir up and chew through sediments and vegetation should be avoided where flowering rush is present. Additional response from Jennifer may not have been captured by the note-taker. Response from Steve Winter (USFWS): Maybe we should avoid dredging for fines that will cap coarse dredge material on islands, or dredging for seed/tuber-rich sediments that will be placed in "mudflat" areas shouldn't be done when flowering rush is known to be in the potential dredging location.

Question from Karen Hagerty (UMRR LTRM): How far downstream is flowering rush found? Response from Steve Winter (USFWS): After the meeting I looked at EDDMapS and there aren't any positive records farther downstream on the Mississippi (all the way to the Gulf of Mexico) or on the Illinois River (see the supplemental figure provided below). There are a number of negative records on or near the Mississippi and Ohio Rivers from Kaskaskia to their confluence, and from the confluence over to Louisville. Negative records indicate there was some level of search effort expended but there was no detection of the species. I had also queried the USFWS Pesticide Use Proposal System database earlier in August and that query didn't turn up any records of refuges on the Mississippi or Illinois Rivers using herbicides for flowering rush control during the years 2010–2019. The USFWS Region 3 refuges that did were located in Michigan (Detroit River International Wildlife Refuge; Shiawasee NWR) and Ohio (Ottawa NWR). Similarly, there weren't any refuges farther downstream of us on the Mississippi River in USFWS Region 4 that used a herbicide for flowering rush control.

Supplemental Figure: Locality records for flowering rush in North America as indicated by the EDDMapS database (https://www.eddmaps.org/distribution/).



Additional items, open discussion

Tim Miller (USFWS): After today's discussions about flowering rush and Asian carp, Tim is wondering if there is a way to effectively communicate between the USACE Districts and their respective River Teams to share information about issues such as these.

Agency Updates

Minnesota DNR

- Dan Dieterman retired in early August and his role and duties are now being covered by Neil Rude (neil.rude@state.mn.us) and Kevin Stauffer (kevin.stauffer@state.mn.us). As a note, Dan has been fishing on the river almost every day since retiring, but he will have to take a couple week break soon because of a hunting trip in Colorado :).
- Taylor Huinker (taylor.huinker@state.mn.us) is the Hydrologist covering the Mississippi River/former duties of Bill Huber.
- MN DNR employees will continue to work from home when conducting typical office duties for an unspecified amount of time, so email is the best way to contact MN DNR employees.
- MN DNR was able to conduct most of its typical annual Mississippi River sampling (fish and habitat/vegetation) despite COVID-19 restrictions.
- The MN DNR project at Reno Bottoms (floodplain forest and aquatic habitat enhancement) funded by the Lessard-Sams Outdoor Heritage Fund is still in the initial planning phase, but we hope to have a more solidified project plan in the coming months.

UMRBA (Andrew Stephenson)

- UMRBA continues to facilitate the UMRR Coordinating Committee discussions on developing the 2022 Report to Congress, identifying issues affecting program implementation, as well as a communications strategy connecting UMRR with work in the Lower Illinois River Basin.
- UMRBA continues to facilitate the ongoing work of the WLM Regional Coordinating Committee. On Friday, August 21, 2020 UMRBA will discuss the application of Structured Decision Making in developing ecological goals and objectives, as well as a case study on mussels.
- UMRBA and Corps staff continue to draft the "Keys to the River 2020" report. Next steps include convening the chapter team leads for their review of the draft report.
- UMRBA continues to collaborate with the Corps, states, USFWS, USGS, USEPA, and candidate nonprofit cost-share sponsors in discussing a construction-ready package of ecological restoration projects for NESP that could be started in FY 2021. On behalf of the five states and USFWS, UMRBA sent letters to the Corps providing their endorsement for Pool 2 wing dam/wing dike alterations and L&D 22 fish passage on the Upper Mississippi River and Twin Islands, Alton Pool, and Starved Rock on the Illinois Waterway.
- UMRBA recently released the proposed legislative text of the Water Quality Improvement Act (see attachments that were distributed to the FWWG email list on 08/19/2020). The objectives of the WQ Improvement Act include the following:
    - Establish a Mississippi River program office to organize state and federal solutions for robust and cost-effective nutrient and sediment reduction on the Upper Mississippi River and its watershed. This extends from the longstanding relationships among USEPA, NRCS, and the five states built through the Hypoxia Task Force.

    - Minimize the effects of excess sediment and nutrients on the Upper Mississippi River and its watershed as well as the Gulf of Mexico by building on, and leveraging, existing state and federal programs and initiatives.
    - Improve knowledge of water quality status and trends on the Upper Mississippi River and its watershed among decision makers, water users, and the general public.
- UMRBA's Executive Director, Kirsten Wallace, serves as a trustee of the National Waterways Foundation. The NWF recently released a series of state economic profiles that outline the impact of inland waterways to state economies. Profiles for the FWWG states can be found here: Minnesota, Wisconsin, and Iowa.

UMRR LTRM (Jennifer Sauer)

- LTRM aerial photo collection as of today: Pools 10-18, Peoria-Lockport, Open River South, and the bottom half of Open River North are completed.
- LTRM Status and Trends Version 3 underway hope to get out for review late-Sept. early-Oct.
- LTRM Vegetation sampling: completed
- LTRM WQ sampling (Fixed and SRS) underway
- LTRM Fisheries Sampling underway: Pools 4 and 8 can do netting only (electroshocking not allowed due to Covid-19 restrictions—no 3 person sampling); Pools 26, Open River, and La Grange can do both netting and electroshocking.
- Illinois Waterway Closure Study
    - Fisheries: The LTRM Havana field office (INHS) is planning on sampling for year 2 of the UMRR funded IWW navigation closure study. This is a multi-agency and multi-partner effort, leveraging staff, material support, and costs from LTRM, the Illinois River LTER program, the Asian Carp Task Force, the USFWS, and others. Full LTRM fisheries SRS sampling frames and methods are being deployed upon all Illinois River navigation pools and annual site selections have been generated for the next 20 years with the expectation of continued extra-programmatic LTRM fish community sampling well beyond the time horizon of the UMRR funded IWW navigation closure study. Funding IDNR
    - Water Quality: the fisheries teams are set up to collect chlorophyll and turbidity at sites in Alton, Peoria, Starved Rock and Marseilles Pools during periods 2 and 3. The Rock Island water quality staff will be deploying two sondes at sites in Starved Rock pool to measure several parameters (turbidity, chl, etc).
    - Aquatic Vegetation: Cancelled this year due to Covid-19 travel restrictions for the states. Fisheries crews will help document vegetation and also may pick up with LTRM 2020 aerial imagery collection.

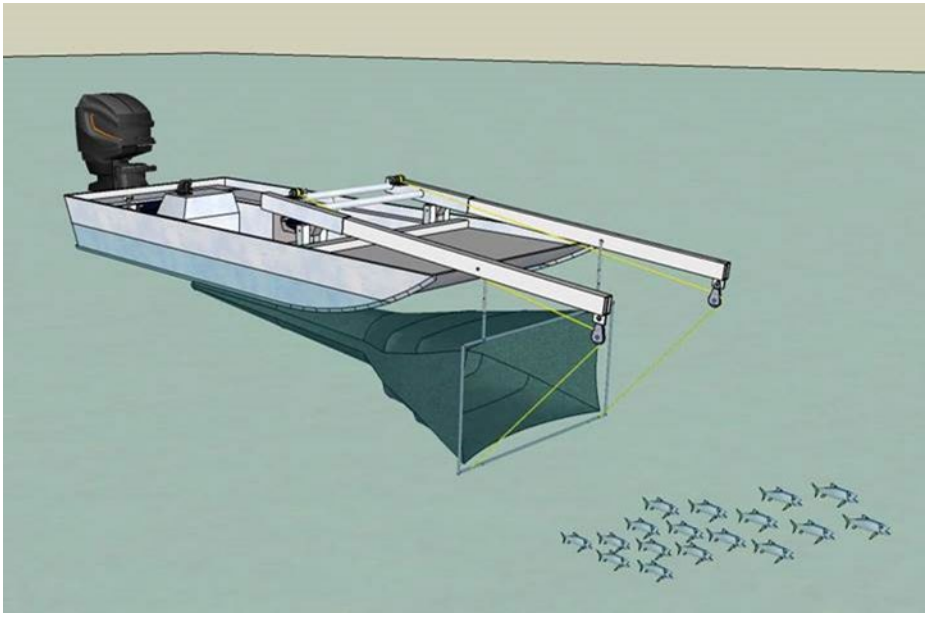
USACE (Steve Clark)

- Jon Sobiech was promoted to Deputy Chief of Regional Planning and Environment Division North, which was previously held By Terry Birkenstock.
- Channel maintenance this year has gone more smoothly than expected. After the excess dredging needed in 2019, it was expected that we would run into issues managing the volume this year, but things have gone fairly well thus far.

- Dredged Material Management Plans: Pool 5 is complete and we recently purchased the Rolling Prairie property from two willing sellers; Pools 4 and 6 are both being reformulated at this time; we plan to kick off Pool 9 and 10 in the near future.

USFWS La Crosse Fish and Wildlife Conservation Office (Rebecca Neeley, Project Leader)

- Due to COVID-19, the majority of field work in the UMR has been put on hold until FY21.
- Staff from the FWCO took possession of AC that were collected by the MNDNR contract fishermen in pools 6 & 8. One Silver Carp was collected in pool 6, 39 Silver Carp/hybrid Silver & Bighead Carp and 12 Grass Carp. All Grass Carp collected were diploid.
- Telemetry receivers were deployed in pools 5A-10 in the UMR. Receivers will be downloaded once a month.
- Biologist conducted multiple hydroacoustic surveys in pool 8 in support of the tentatively scheduled Modified Unified Method proposed by the MNDNR. This effort is tentatively scheduled for the spring of 2021.
- Assisted Dr. Peter Sorenson with tagging efforts at Lock and Dam 8 in support of his ongoing deterrent project.
- Staff have been working to build an electrified Dozer trawl which will be used to monitor Asian carp and the fish community as a whole throughout the UMR. See picture below.



USFWS Upper Mississippi River National Wildlife & Fish Refuge HQ Office (Tim Yager, Deputy Refuge Manager; Sharonne Baylor, Environmental Engineer)

- The HQ office has moved to 102 Walnut Street, Suite 204, in Winona.
- HQ staff continue to primarily telework from home. Because of this, cell phones are better for contacting HQ staff in a timely manner.
- Bass Ponds, Marsh, and Wetlands HREP (Minnesota Valley NWR on the Minnesota River): Construction starting up, pre-con next month.

- Reno Bottoms HREP (Pool 9): Planning.
- Conway Lake HREP (Pool 9): Construction ongoing, should be substantially complete this year.
- Cold Springs HREP (Pool 9): Tweaking.
- Harper's Slough Islands HREP (Pool 9): High water repairs design underway.
- McGregor Lake HREP (Pool 10): Bids just opened.
- Lower Pool 10 HREP: Planning.
- Pool 12 Overwintering HREP: Finishing up Stage II construction.
- Green Island HREP in Pool 13: Planning
- Lower Pool 13 HREP: Planning.
- Beaver Island HREP (Pool 14): Construction ongoing.
- Steamboat Island HREP (Pool 14): Planning, finishing up feasibility phase.
- Keithsburg Division HREP (Port Louisa NWR on Pool 18): Stage I under construction. Stage II design ongoing.

USFWS Upper Mississippi River National Wildlife & Fish Refuge Winona District (Jennifer Froehly, Wildlife Biologist)

- The Winona District office has moved to 102 Walnut Street, Suite 204, in Winona.
- Deputy Manager Curt McMurl has transferred to the Illinois River NWR.
- Significant time spent searching for and mapping Flowering Rush.
- Completed forest inventory on Aghaming Island in Pool 6.
- Additional biological work includes bumblebee surveys, heron rookery surveys, woody invasive work, and Inventory and Monitoring Plan writing.
- Currently posting waterfowl hunting closed areas.

USFWS Upper Mississippi River National Wildlife & Fish Refuge La Crosse District (Tim Miller, La Crosse District Manager)

- Substantial mapping of flowering rush in Pools 7 and 8, followed by planning for control efforts.
- Forest Inventory in Pool 8.
- Grassland surveys.
- Terrestrial invasive species management.
- Bat Acoustic Surveys.
- Black tern surveys in Blue Lake and Lawrence Lake in Pool 8, as well as Trempealeau NWR (adjacent to Pool 6). Flush counts have been used to monitor numbers from 2015-2020. During high water years there are typically fewer adults present. In 2020 there were a greater number of adults and juveniles detected during flush counts than previous years, likely because water levels weren't high in 2020. There is concern about the effect of human disturbance during the nesting season such as bow fishing and water rescues.
- Disturbance Monitoring of the Lake Onalaska Voluntary Waterfowl Avoidance Area was conducted by the USGS during the fall of 2019 and the report was recently completed. A season-long average of 2.3 major disturbances per day was documented and that is above the threshold of 1 major disturbance per day that is specified in the refuge's Comprehensive Conservation Plan. Work on this issue will continue in 2020.

USFWS Upper Mississippi River National Wildlife & Fish Refuge McGregor District (Wendy Woyczik, Acting District Manager)

- Brandon Jones (District Manager) is still on an extended detail as Hunt and Fish Chief for USFWS Region 3. Wendy Woyczik is Acting District Manager during this time.
- The McGregor District staff are busy working on HREPS in Pool 9 (Reno Bottoms, Conway Lake, Cold Springs, Harpers Slough) and Pool 10 (McGregor Lake, Lower Pool 10).
- Working on Forest Inventory, mapping and spraying flowering rush, and posting Closed Areas.
- Noted a significant increase in public use on the river and some conflicts with beach use and boaters in and around HREPs.