

The UMRCC Newsletter



Fall 2009

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>.

Chairman's Letter

Fall is ushered in by shorter days and cool nights. This allows us to take stock in the previous summer and to plan for the coming winter. Up in our portion of this great river we had a cold summer with very clear water and abundant submergent vegetation. I find it interesting, that as time goes on, I learn there is nothing normal. Every year is different. Normal is a condition around some fictitious mean that never happens. It is wonderful that this set of ecological parameters has allowed a very diverse community of fauna to evolve with the ability to exploit or at least tolerate almost anything that Mother Nature throws at it.

Have a great fall!

Ron Benjamin

River Resource News

MAFWA Biologist of the Year

Our very own Tom Beissel received the 2009 "Wildlife Biologist of the Year" award from the Midwest Association of Fish and Wildlife Agencies. The award was presented at the MAFWA Directors Meeting held in Peoria on June 29th - July 1st. This award goes to the individual who has shown an unparalleled initiative towards the better understanding of wildlife and their conservation. Tom Beissel is the Regional Wildlife Biologist (RWB) for Region I (25 counties in northwestern Illinois) for the Illinois department of Natural Resources. As the Region I RWB, Tom directs wildlife conservation field operations through the supervising of seven District Wildlife Biologists, working with other Regional disciplines, coordinating with 56 federal and state conservation sites, and cooperating with private land groups.

Tom is a TWS member and TWS Certified Wildlife Biologist, a past-president of the Illinois Chapter-TWS, and past secretary-treasurer of TWS North Central Section, and an officer of the Upper Mississippi River Conservation Committee. He is also the designated regional lead for Region I and is responsible for coordinating various regional resource issues for the four resource conservation disciplines within the region. Tom Beissel's



Tom Beissel (2nd from right) receives Biologist of the Year Award

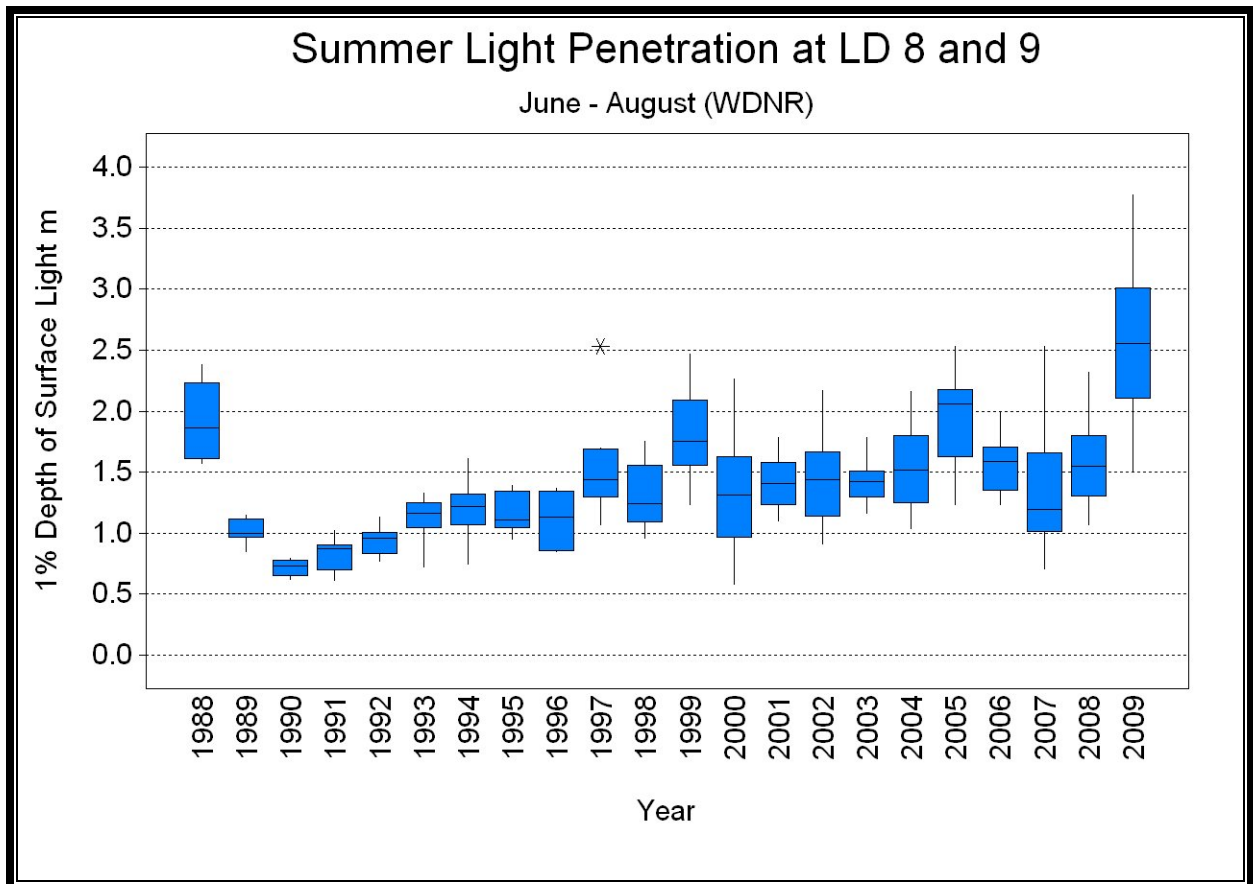
responsibilities with managing wildlife field operations within Region I are year round and are considered 100% of his work load. Despite this existing work load, Tom has also taken on with zeal the responsibilities of directing Chronic Wasting Disease (CWD) field operations in Regions I and II working extra hours annually to ensure the CWD management response was implemented successfully over the past six years. Much of the success of Illinois' CWD field operations can be contributed to Tom's hard work, persistence, creativity, personal motivation, and professionalism.

Congratulations Tom!

Article credit - Illinois Chapter of The Wildlife Society Summer 2009

Mississippi Clear as Gin

John Sullivan (Wisconsin DNR) reports record water clarity. The summer of 2009 had the greatest light penetration at LD 8 and LD 9 since this monitoring was started in 1988. The data include the June-August period. This is likely related to low flows (reduced TSS inflows), high SAV and zebra mussel filter feeding. Blue green algae (esp. Aphanizomenon) are present, but the levels seem to lower than what we saw early in the summer.



John F. Sullivan



USGS Upper Midwest Environmental Sciences Center Celebrates 50 years of Science & Service for Partners

Open House

On September 12th the United States Geological Survey (USGS)-Upper Midwest Environmental Sciences Center (UMESC) held an open house to celebrate their 50th anniversary. The event was open to the public and over 1,450 visitors came to see what USGS and their partners around the area do to protect and conserve their natural resources. Partners included offices from United States Fish and Wildlife Service (USFWS), Wisconsin Department of Natural Resources (WI DNR), Army Corps of Engineers (COE), University of Wisconsin-La Crosse (UWL), Viterbo University, and other Wisconsin USGS Science Centers.



Photo by Mark Steingraeber

A 50-Year History Synopsis (1959-2009)

1959 Fish Control Laboratory – The Upper Midwest Environmental Sciences Center (UMESC) was founded as a U.S. Fish and Wildlife Service (FWS) research facility. The laboratory's original mission focused on the control of common carp, and later expanded to include sea lamprey in the Great Lakes.

1970 Aquatic Contaminants – During the 1970's, science focused on the study of river sediments, nutrients, and toxic contaminants (organic and inorganic) in the Upper Mississippi River (UMR).

1977 Migratory Waterfowl – Recognizing the important role the UMR plays in providing resting and feeding habitats for migratory birds, research efforts were expanded to focus on diving ducks, waterfowl foods, and habitat restoration.

1981 Aquatic Ecology – The UMESC expanded its research activities to include the ecological relationships of water, plants, sediment, mussels and fish in the UMR.

1986 LTRMP – The Long Term Resource Monitoring Program (LTRMP) was created as a component of the Environmental Management Program to provide policy makers and natural resource managers with a better understanding of natural resource status and trends of the UMR. UMESC leads the LTRMP in partnership with the US Army Corps of Engineers, and the states of Illinois, Iowa, Minnesota, Missouri, and Wisconsin.

1991 Wildlife Contaminants – The UMESC began researching contaminants in aquatic and terrestrial environments, and their impact upon wildlife.

2004 Invasive Species Complex – In response to increasing requests from natural resource partners for information regarding aquatic invasive species, a new laboratory containment area was developed to support this research.

2009 Current UMESC Research – The UMESC continues research in a variety of important areas, including:

- aquatic invasive species, focusing on the development of ways to control their expanding populations
- development of safe and effective aquatic chemicals and drugs for use in fishery management and public aquaculture
- declining populations of birds, fish, amphibians and freshwater mussels
- patterns of contamination in terrestrial and aquatic environments
- large river health, including the LTRMP
- maps, visualization tools, and decision aides designed to help resource managers and engineers plan and implement habitat rehabilitation projects

Major Accomplishments –

- **Published over 1,000 journal articles**
- **Employed nearly 400 people**
- **Implemented the Amphibian Research and Monitoring Initiative (ARMI)**
- **Developed and improved new tracking, banding, modeling & survey technologies to monitor movement and survival of birds**
- **Research to develop, register, and expand applications of fishery management chemicals and drugs**
- **Research to develop, register and improve the larval lampricides**
- **Development of GIS-based and internet-based tools to guide strategic habitat management and restoration efforts across the Nation.**
- **Successfully coordinated over 20 years of comprehensive resource monitoring of the Upper Mississippi River.**
- **Studied endangered, threatened, and stable mussel species**
- **Produced vegetation data and maps**

Thank-you to all Partners –

UMESC would like to thank all of the agencies, organizations, and professionals that have supported our program and science during the past 50 years. We look forward to continuing and expanding our cooperative work with each of you in the future to maintain and improve conservation and natural resource management.

Randy Hines
Outreach & Partnership Coordinator



MDC Resource Science Science Notes



Understanding bottomland hardwood forest regeneration: A tale of cottonwood and willow tree recruitment

YAO YIN¹, DAWN HENDERSON², AND PAUL BOTCH²

¹U.S. Geological Survey Upper Midwest Environmental Sciences Center, 2630 Fanta Reed Road, La Crosse, Wisconsin 54603, USA . ²Missouri Department of Conservation, Open Rivers and Wetlands Field Station, 3815 East Jackson Blvd, Jackson, Missouri 63755, USA

SUMMARY

Early successional forest communities along the Mississippi River function as habitat for resident and migratory bird populations, provide spawning and refuge area for fishes, and function to improve water quality. The lower Mississippi River (from Lock and Dam 26 to the confluence with the Ohio River) is locked into a static position by channel-training structures (e.g., wing dikes), sediment dredging, and levees for navigation and flood control purposes. These activities have altered natural river processes that are essential for sustaining early successional forest communities of black willow (*Salix nigra* Marsh.) and eastern cottonwood (*Populus deltoides* Bartr. Ex. Marsh. var. *deltoides*). As a result, floodplain communities have shifted in composition from cottonwood/willow forests to those largely dominated by silver maple. The Great Flood of 1993 destroyed many of the silver maple dominated forest communities

(Yin 1998) and provided an opportunity to study early successional community development in an altered hydrologic regime. The objective of this study was to re-examine the forested stands, 13 years after the flood event, to determine if eastern cottonwood and black willow had successfully recruited into the forest canopy.

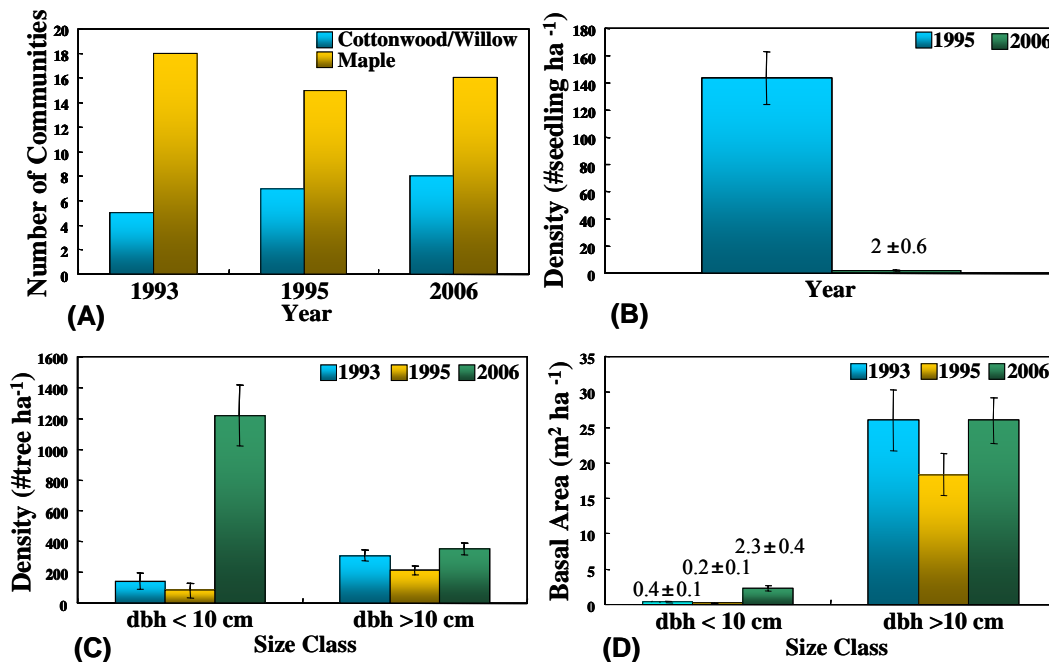
Goal: Determine if eastern cottonwood and black willow have successfully recruited into forest canopies 13 years after a rare flood event.

Table 1. Percent change in species composition for seedlings (dbh \leq 2.5cm) and trees (dbh $>$ 10 cm). Units for 1995 and 2006 represent individual seedling and tree species surveyed.

	S p e c i e s	1 9 9 5	2 0 0 6	% C h a n g e
S e e d l i n g s	C o t t o n w o o d	3 1	4 7	3 4
	W i l l o w	3 7 6	2 5	- 1 4 0 4
	S i l v e r m a p l e	5 2 6	1 0	- 5 1 6 0
T r e e s	C o t t o n w o o d	2 8	8 6	6 7
	W i l l o w	4 6	1 2 6	6 3
	S i l v e r m a p l e	1 0 5	3 2 7	6 8

Silver maple communities decreased following the 1993 flood, then recovered to near pre-flood numbers by 2006 (Fig. 1A). Cottonwood/willow forest communities experienced a minor increase from 1993 to 2006 (Fig. 1A). There was a 34% increase for the number of cottonwood seedlings (≤ 2.5 cm dbh – diameter at breast height, ~ 1.4 m) from 1995 to 2006; however, willow and silver maple had a 14- and 52-fold decrease, respectively (Table 1). Cottonwood/willow seedling density (number of seedlings per hectare) plummeted from 143 to 2 from 1995 to 2006, respectively (Fig 1B). Overall sapling (>2.5 and ≤ 10 cm dbh) density was much higher in 2006 than in previous years (Fig 1C). Adult tree (dbh > 10 cm) density declined from 309 to 211, then rebounded to 350 from 1993, 1995, and 2006, respectively (Fig 1C). Although the number of mature trees increased from 1995 to 2006, the percent changed remained similar for all three species (Table 1). Following the 1993 flood, overall basal area was lower in 1995 for both saplings and adult trees. By 2006, saplings surpassed pre-flood biomass while mature tree biomass rebounded to near pre-flood levels in 2006 (Fig. 1D).

Figure 1. Comparison of community numbers (A), sapling density (B), tree density (C), and basal area (D) over the three years surveyed.



Management Findings: As a result of forest canopy openings created by the 1993 flood, higher percentages of eastern cottonwood and black willow trees were found in 2006 than in 1995. These findings support the need of regular flood events to maintain cottonwood and willow regeneration.

Management Implications: Periodic flooding of passively managed floodplain forests may increase diversity of early successional tree species.

Acknowledgements: Special thanks go out to Josh Wibbenmeyer, Brian Whitehead, David Ostendorf, and Jason Crites for their assistance with data collection. Special thanks to Mike Hubbard, Norman Murray Yao Yin, and two anonymous reviewers for their assistance with an earlier version.

Congressional Action Related to the Upper Mississippi River



Climate Change

Bill # H.R.585, [Barbara Lee](#) (D-CA 9th)
To direct the President to enter into an arrangement with the National Academy of Sciences to evaluate certain Federal rules and regulations for potentially harmful impacts on public health, air quality, water quality, plant and animal wildlife, global climate, or the environment; and to direct Federal departments and agencies to create plans to reverse those impacts that are determined to be harmful by the National Academy of Sciences.

Bill # H.R.1438, [Jeff Fortenberry](#) (R-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 # H.R.1926, [Michael Honda](#) (D-CA)
To authorize the National Science Foundation to establish a Global Warming Education Program.

Bill # H.R.2192, [Raul Grijalva](#) (D-AZ 7th)
To establish an integrated Federal program to protect, restore, and conserve the Nation's natural resources in response to the threats of climate change and ocean acidification.

Bill # H.R.2306, [Norman Dicks](#) (D-WA 6th)
To provide for the establishment of a National Climate Service, and for other purposes.

Bill # H.R.2312, [Steve Israel](#) (D-NY 2nd)
To authorize the Secretary of Energy to make grants to encourage cooperation between the United States and China on joint research, development, or commercialization of carbon capture and sequestration technology, improved energy efficiency, or renewable energy sources.

Bill # H.R.2880, [Chellie Pingree](#) (D-ME 1st)
To require the Secretary of Agriculture to establish a carbon incentives program to achieve supplemental greenhouse gas emissions reductions on private agricultural and forestland of the United States, and for other purposes.

Conservation

Bill # S.655, [Tim Johnson](#) (D-SD)
A bill to amend the Pittman-Robertson Wildlife Restoration Act to ensure adequate funding for conservation and restoration of wildlife, and for other purposes.

Conservation cont.

Bill # H.R.996, [Devin Nunes](#) (R-CA 21st)
To temporarily exempt certain public and private development projects from any requirement for a review, statement, or analysis under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), and for other purposes.

Bill # H.R.1394, [Jay Inslee](#) (D-WA 1st)
To amend the National and Community Service Act of 1990 to establish the Clean Energy Corps to mobilize young people to promote energy conservation and mitigate threats to the environment.

Bill # H.R.1612, [Raul Grijalva](#) (D-AZ 7th)
To amend the Public Lands Corps Act of 1993 to expand the authorization of the Secretaries of Agriculture, Commerce, and the Interior to provide service-learning opportunities on public lands, help restore the nation's natural, cultural, historic, archaeological, recreational, and scenic resources, train a new generation of public land managers and enthusiasts, and promote the value of public service.

Bill # H.R.1916, [John Dingell](#) (D-MI 15th)
To amend the Migratory Bird Hunting and Conservation Stamp Act to provide for a revised schedule of price increases for the Migratory Bird Hunting and Conservation Stamp, popularly known as the "Duck Stamp", and for other purposes.

Bill # H.R.2188, [Frank Kratovil](#) (D-MD 1st)
To authorize the Secretary of the Interior, through the United States Fish and Wildlife Service, to conduct a Joint Venture Program to protect, restore, enhance, and manage migratory bird populations, their habitats, and the ecosystems they rely on, through voluntary actions on public and private lands, and for other purposes.

Bill # H.R.2213, [Ron Kind](#) (D-WI 3rd)
To reauthorize the Neotropical Migratory Bird Conservation Act.

Bill # H.R.2565, [Ron Kind](#) (D-WI 3rd)
To conserve fish and aquatic communities in the United States through partnerships that foster fish habitat conservation, to improve the quality of life for the people of the United States, and for other purposes.

Bill # H.R.2807, [Ron Kind](#) (D-WI 3rd)
To sustain fish, plants, and wildlife on America's public lands.

Bill # H.R.3046, [Denny Rehberg](#) (R-MT)
To recognize the heritage of hunting and provide opportunities for continued hunting on Federal public land.

Bill # H.R.3671, [Ron Kind](#) (D-WI 3rd)
To promote Department of the Interior efforts to provide a scientific basis for the management of sediment and nutrient loss in the Upper Mississippi River Basin, and for other purposes.

Endangered Species

Bill # S.197, [Russ Feingold](#) (D-WI) and
Bill # H.R.388, [Tammy Baldwin](#) (D-WI 2nd)
To assist in the conservation of cranes by supporting and providing, through projects of persons and organizations with expertise in crane conservation, financial resources for the conservation programs of countries the activities of which directly or indirectly affect cranes and the ecosystems of cranes.

Bill # H.R.1914, [Nathan Deal](#) (R-GA 9th)
To amend the Endangered Species Act of 1973 to provide for the suspension of each provision of the Act during periods of drought with respect to Federal and State agencies that manage Federal river basins that are located in each region affected by the drought.

Bill # H.R.2062, [Peter DeFazio](#) (D-OR 4th)
To amend the Migratory Bird Treaty Act to provide for penalties and enforcement for intentionally taking protected avian species, and for other purposes.

Invasive Species

Bill # S.462, [Barbara Boxer](#) (D-CA)
A bill to amend the Lacey Act Amendments of 1981 to prohibit the importation, exportation, transportation, and sale, receipt, acquisition, or purchase in interstate or foreign commerce, of any live animal of any prohibited wildlife species, and for other purposes.

Bill # S.1421, [Carl Levin](#) (D-MI)
Bill # H.R.3173, [Judy Biggert](#) (R-IL 13th)
To amend section 42 of title 18, United States Code, to prohibit the importation and shipment of certain species of carp.

Bill # H.R.48, [Judy Biggert](#) (R-IL 13th)
To amend section 42 of title 18, United States Code, popularly known as the Lacey Act, to add certain species of carp to the list of injurious species that are prohibited from being imported or shipped.

Bill # H.R.51, [Mark Kirk](#) (R-IL 10th)
To direct the Director of the United States Fish and Wildlife Service to conduct a study of the feasibility of a variety of approaches to eradicating Asian carp from the Great Lakes and their tributary and connecting waters.

Bill # H.R.669, [Madeleine Bordallo](#) (D-GU)
To prevent the introduction and establishment of nonnative wildlife species that negatively impact the economy, environment, or other animal species" or human health, and for other purposes.

Water Resources

Bill # H.R.631, [Jim Matheson](#) (D-UT 2nd)
To increase research, development, education, and technology transfer activities related to water use efficiency and conservation technologies and practices at the Environmental Protection Agency.

Bill # H.R.895, [Bill Pascrell](#) (D-NJ 8th)
To amend the Federal Water Pollution Control Act to reauthorize the sewer overflow control grants program.

Bill # H.R.1145, [Bart Gordon](#) (D-TN 6th)
To implement a National Water Research and Development Initiative, and for other purposes.

Bill # H.R.1262, [James Oberstar](#) (D-MN)
To amend the Federal Water Pollution Control Act to authorize appropriations for State water pollution control revolving funds, and for other purposes.

Climate Change Update

Check out the EPA Climate Change Strategy for Water Resources at http://www.epa.gov/water/climatechange/docs/executive_summary.pdf

In addition, the Department of the Interior issued a secretarial order requiring federal agencies to address climate change. The order can be viewed at: <http://www.doi.gov/climatechange/SecOrder3289.pdf>

Sent in by Tim Schlagenhaft

CALENDAR

Meetings, Conferences and Events

**UMRCC Fall Meeting
Water Quality Section
November 16 & 17, 2009
Rock Island – FWS Office**

**UMRBA/EMP Coordinating
Committee/NECC Meetings
November 17-19, 2009
Rock Island, Illinois**

**River Resources Forum Meeting
December 1 & 2, 2009
Bloomington, MN**

**2009 Midwest Fish and Wildlife Conf.
December 6-9, 2009
Springfield, Illinois**

**UMRBA/EMP Coordinating
Committee/NECC Meetings
February 23-25, 2010
St. Louis, MO**

**UMRCC Annual Meeting
March 16-18, 2010
Dubuque, Iowa**

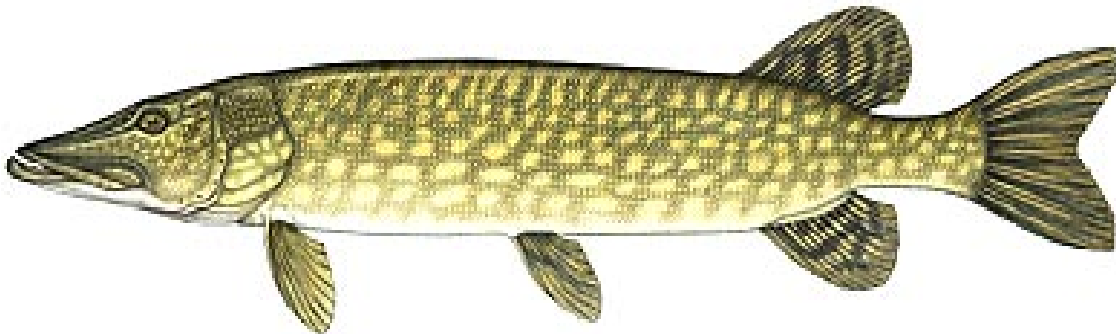
**UMRBA/EMP Coordinating
Committee/NECC Meetings
May 18-20, 2010
Twin Cities, MN**

**International Catfish Symposium
June 20-22, 2010 – St. Louis, MO
www.catfish2010.org**

**American Fisheries Society
Annual Meeting
September 12-16, 2010
Pittsburgh, PA
www.fisheries.org/afs/index.html**

**The Wildlife Society – Annual Conf.
October 3-7, 2010
Snowbird, Utah
<http://joomla.wildlife.org>**

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



Training/Workshops

Natural Resource Damages – November 12 & 13, 2009
Hilton Penn Station – Newark, NJ
www.lawseminars.com/detail.php?SeminarCode=09NRDNJ

Level 1 – Applied Fluvial Geomorphology, April 19-23, 2010
Level 2 – River Morphology and Applications, April 26-30, 2010
Level 3 – River Assessment & Monitoring, May 17-21, 2010
At FWS National Training Center – training.fws.gov

The 2010 workshop of the Freshwater Mollusk Conservation Society will be held in either late October or early November of 2010 in Kirkwood, Missouri.
For More information contact Steve McMurray (Stephen.McMurray@mdc.mo.gov) or Heidi Dunn (hdunn@ecologicalspecialists.com)

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

Coordinators Quiz

We had no responses sent in on the last quiz question. The question for the summer newsletter was: **How many channel training structures are there in the Mississippi River from Guttenberg, IA to Saverton, MO.** Answer - **1,100.**

The Quiz for the Fall newsletter is – **What Federally Threatened Plant, referred to by Dr. Galat, showed an increase in abundance following the 1993 Flood?** The first correct answer emailed to Scott_yess@fws.gov will receive a prize.

"Any river is the summation of the whole valley. To think of it as nothing but water, is to ignore the greater part" - Hal Borland



UMRCC Chairman

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

Kevin Stauffer – Minnesota Delegate, Minnesota DNR, Lake City, MN

Dan Sallee – Illinois Delegate, Illinois DNR, Sterling, IL

Patrick Short – Secretary/Treasurer, Wisconsin DNR, Prairie du Chien, WI

Jeff Janvrin – Fish Section Chair, Wisconsin DNR, La Crosse, WI

Mike Flaspohler – Wildlife Section Chair, Missouri DOC, Hannibal, MO

Matthew Short – Water Quality Chair, Illinois EPA, Springfield, IL

Jennifer Lancaster – Law Enforcement Chair, Iowa DNR, Manchester, IA

Scot Johnson – Recreation Section Chair, Minnesota DNR, Lake City, MN

Rick Frietsche – Acting 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:

UMRCC Coordinator - Scott Yess

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