

Sheboygan River Basin PARTNERSHIP



BITS FROM THE BASIN

Summer 2011

Exploring Sheboygan River Fish, Wildlife and Habitat in 2011

By Stacy Hron-WDNR and Debbie Beyer-UWEX

In late 2009 and early 2010, the Sheboygan River Fish and Wildlife Technical Advisory Committee submitted a \$200,000 Great Lakes Restoration Initiative (GLRI) proposal to fund a rapid ecological assessment of the lower 14 miles of the Sheboygan River, from the Sheboygan Falls dam to the Sheboygan Harbor, which is the Area of Concern (AOC). The AOC is where there are consumption advisories on the fish and waterfowl due to PCB contamination.

The purpose of the ecological assessment is to gather baseline data on various fish, wildlife and habitat components needed in planning habitat restoration projects and to measure success once the projects are implemented. The ecological assessment has ten components funded under the GLRI grant:

Fish community assessment

Fish surveys were conducted at 16 sites in the Sheboygan River, Willow Creek, Weeden Creek and the Onion River below the Hingham dam. Spring northern pike spawning surveys were done in the AOC upstream of Taylor Drive.

Macro-invertebrate and fish habitat assessment

Macro-invertebrates are the critters you can see with your naked eye and do not have back bones . . . like crayfish, mussels, insect larvae, etc. Surveys were done at 16 sites in the Sheboygan River, Willow Creek, Weeden Creek and Onion River below the Hingham dam. Fish habitat assessments were done at the same sites. Two aquatic plant surveys were done, the first near the Wildwood Park Island complex and the second near the stormwater detention pond at the entrance to UW-Sheboygan.

Mussel survey

Mussel surveys were performed at select locations in the Sheboygan River AOC. The biologist compiled a list of mussel species found at each location and noted the apparent overall health of the mussel community, species abundance and evidence of recent reproduction.

Bat survey

WDNR conducted bat surveys along the entire reach of the Sheboygan River AOC with a hand-held device called Ana-Bat Detector, which detects bat vocalizations above the auditory range of the human ear. The Ana-Bat puts a species name, time, date, and location stamp on each bat occurrence. Additional land-based surveys were conducted from Sheboygan Falls to Taylor Drive, where the river is shallow and difficult to canoe at night.

Continued on Page 3.



On August 10th, 30 people learned about night-time bat surveys being done on the Sheboygan River to assess its ecological health.

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Exploring the Sheboygan River

By Kendra Schielke

The past few months have been an exciting time to explore the Sheboygan River! With historically significant efforts taking place to clean up sediments in the river and restore its health, community members are eager to learn more about it.

Over 65 people attended the various events that were offered by the Sheboygan River Basin Partnership, Camp-Y-Koda Outdoor Skills and Education and UW-Extension Regional Natural Resources Program with funding from the Wisconsin Department of Natural Resources and U.S. EPA Great Lakes Restoration Initiative. These events provided participants of all ages with firsthand experiences and allowed them to discover the details of the task of cleaning up the river and learn about wildlife within and along the river corridor with the help of local experts.

Participants got the chance to search for bats in the night along the Sheboygan River using a bat detector to convert echolocation ultrasound signals to frequencies that could be heard and identified. One event invited the public on a tour of the Camp Marina Superfund Site where the monumental cleanup is under way. Members of the community also had the opportunity to go on kayak expeditions during which they were able to relax and enjoy the scenery while spotting wildlife and even bumping into salmon along the way. Concerned and thoughtful citizens dedicated their time to clean up the shorelines of Lake Michigan near the mouth of the Sheboygan River and spent the morning collecting litter to make the beach a more beautiful place.

These events have allowed the public to get involved and gain an understanding of why the Sheboygan River is considered one of the 43 most areas in the Great Lakes drainage basin needing special attention and what we can do to help restore its health. Most importantly, these events have sparked the interest of the community and shown participants why the health of the Sheboygan River is important.



Above: A Girl Scout troop poses after a morning of cleaning up trash along the Sheboygan beach. Participants of a kayak expedition enjoy the scenery as they make their way down the Sheboygan River.

BITS FROM THE BASIN

Sheboygan River Fish, Wildlife and Habitat

Continued from page 1.

Herptile survey

Herptile is the scientific term for reptiles and amphibians collectively. Herptile surveys were done at selected locations within the in the Sheboygan River AOC and its riparian corridor, including the Schuchardt property. At each location, surveyors compiled a list and numbers of all herptile species seen or heard. These surveys focus on endangered, threatened, special concern, and regionally rare species, but all species encountered were noted.

Breeding bird survey

Breeding bird surveys were done at selected locations within the in the Sheboygan River AOC and its riparian corridor. At each location, a list of bird species seen or heard was compiled. These surveys focus on endangered, threatened, special concern, and regionally rare species, but all species encountered were noted.

Natural community, rare plant, and invasive plant survey

Natural communities, rare plants and invasive plants were surveyed in the Sheboygan River AOC and its riparian corridor. Characteristic, rare, and invasive plant species of suspected high-quality natural communities within the area were surveyed. The surveyors took notes on apparent health, approximate species abundance, and other relevant factors.

Wintering bird survey

Wintering bird surveys were conducted using methods that expand upon those for the Mid-Winter Waterfowl Surveys, performed every January in cooperation with the U.S. Fish & Wildlife Service. These surveys were done bi-weekly throughout the winter season. Biologists recorded bird species and numbers, weather, and other factors.

Kingfisher nest survey

DNR staff located belted kingfisher nest burrows along the Sheboygan River AOC and visited them weekly through mid-May, or until eggs were laid, whichever came first. When eggs were first detected, nests were visited twice weekly to record stage of incubation, clutch size, and the age and condition of chicks. This information was gathered using a video burrow probe system. Nest checking continued until the young successfully fledged or the nest failed.

Small mammal and mink survey

WDNR collected small mammals (mice, voles, shrews, etc.) from floodplain areas in the Sheboygan River AOC and an uncontaminated control site for contaminant analysis. Comparing the AOC sample results to those from the control site will provide information on the current extent of contamination of small mammals in the floodplains of the AOC. Mink will be collected during the winter 2011/2012. It is suspected that mink are missing from the area due to the contamination.

The data from these surveys and others are being analyzed over the winter. Stay tuned for future programs and articles reporting these anxiously awaited results!

BITS FROM THE BASIN

Helping Farmers Improve Water Quality

By John Nelson, Project Manager-The Nature Conservancy

Can water quality improve while farming flourishes? That is the question being tested in the Sheboygan River Basin by The Nature Conservancy (the Conservancy) and its many partners over the next six years. A grant by the Kohler Trust for Preservation is making the effort possible.

The Conservancy and Sheboygan County Planning & Conservation staff will be working with farmers in the Otter Creek sub-watershed west of Johnsonville to reduce soil and phosphorus runoff from fields and pastures. Phosphorus is being targeted for control because it is most often the element that causes severe algae and aquatic plant growth in lakes or streams. The benefit to farmers is that the phosphorus will remain on fields where it can stimulate growth of crops and reduce the need for more fertilizer.

The Fischer Creek sub-watershed in the Pigeon River drainage will be used as a “control” watershed. There, no significant changes to farming practices will be promoted.

A key strategy of the entire effort is to find those fields which are most likely to contribute phosphorus to the surface waters of the watersheds. Once identified, these landowners and farmers will be offered cost-sharing opportunities to take steps to reduce soil and phosphorus loss. The SNAP-Plus computer model developed by the UW – Madison Department of Soil Sciences will be used to identify the most vulnerable fields. The model incorporates soil sample results, fertilizer use, field slope, soil type, plus other factors to rank fields.

A variety of “Best Management Practices” (BMP’s) will be incorporated in the Otter Creek sub-watershed to reduce phosphorus loss by concentrating our resources on fewer farms in the watershed. We will be listening to and working with farmers to create site-specific solutions that meet the needs of the farms and the environment. Some examples of those BMP’s include streamside buffers, alternative crop rotations or manure spreading strategies, and no-till planting. Farmers in the watershed are already using many of those BMP’s but, there is still room for improvement. Those changes will benefit the farmers and water quality.

Another key component of the effort is to monitor water quality and the aquatic life in the two watersheds. U. S. Geological Survey (USGS) and Wisconsin DNR (WDNR) staff will conduct most of the monitoring. USGS has installed and operates monitoring stations at the downstream ends of both Otter and Fischer creeks. The stations continuously monitor water flows and automatically collect water samples during storm events. WDNR biologists collect data on bacteria, fish, and aquatic macro-invertebrates.

The work being done in the Sheboygan River Basin is part of a larger effort by TNC to develop farming strategies that are friendly to the environment. Similar efforts are taking place throughout the Midwest. Targeting cost share funding to those fields losing the most phosphorus should be the most cost-effective means of improving water quality while sustaining a healthy agricultural economy. In the end, everyone wins!



Above: USGS Monitoring Station at Fischer Creek.

BITS FROM THE BASIN

WANTED!

YOUR PARTICIPATION ON THE SHEBOYGAN RIVER COMMUNITY ADVISORY COMMITTEE!

Interested in keeping up-to-date with the \$80 million dollars worth of clean-up and restoration projects on the Sheboygan River? Want to provide input on fish and wildlife projects?

Join a small, but enthusiastic group the 2nd Thursday of the month. 6:00-7:30 pm
Contact Debbie Beyer, UWEX for details.
920-467-3343, deb.beyer@ces.uwex.edu



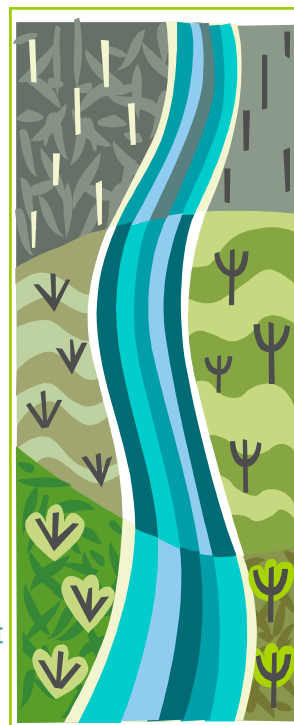
Above: CAC habitat presentation-The Sheboygan River Community Advisory Committee started meeting in August.

Become a Stream Friend Today!

Make a difference
by
adopting a stream
or watershed
in your
community!

For more information
see our
Adopt-A-Stream
Program website at

www.sheboyganrivers.org
or contact Camp Y-Koda at
(920)-467-6882.



Membership Updates

Kristi Sorenson

With your support, SRBP continues to work on our watershed projects and programs. Thank you for your confidence in the Partnership. Together we are making a difference in the Sheboygan River Basin.

Thank You Renewing SRBP Member Partners

Bob and Jo Birkmeyer
Vickie Hall
Christine Viglietti

Membership updates through 9/13/11

Thanks one and all for your Generosity and Support!!

Please let a representative from SRBP know if you have been inadvertently left off the membership list. We apologize in advance and will be sure to acknowledge your support in our next newsletter.

To increase efficiency membership renewals are being sent out one time per year in February. If you have not sent in your renewal, please do so in the addressed envelope you received.

To continue the work of SRBP in and around the Sheboygan River Basin we need the membership and support of water-minded people like you, your friends and relatives.

If you have questions about your SRBP membership, please contact Kristi at (920) 528-7258.

BITS FROM THE BASIN

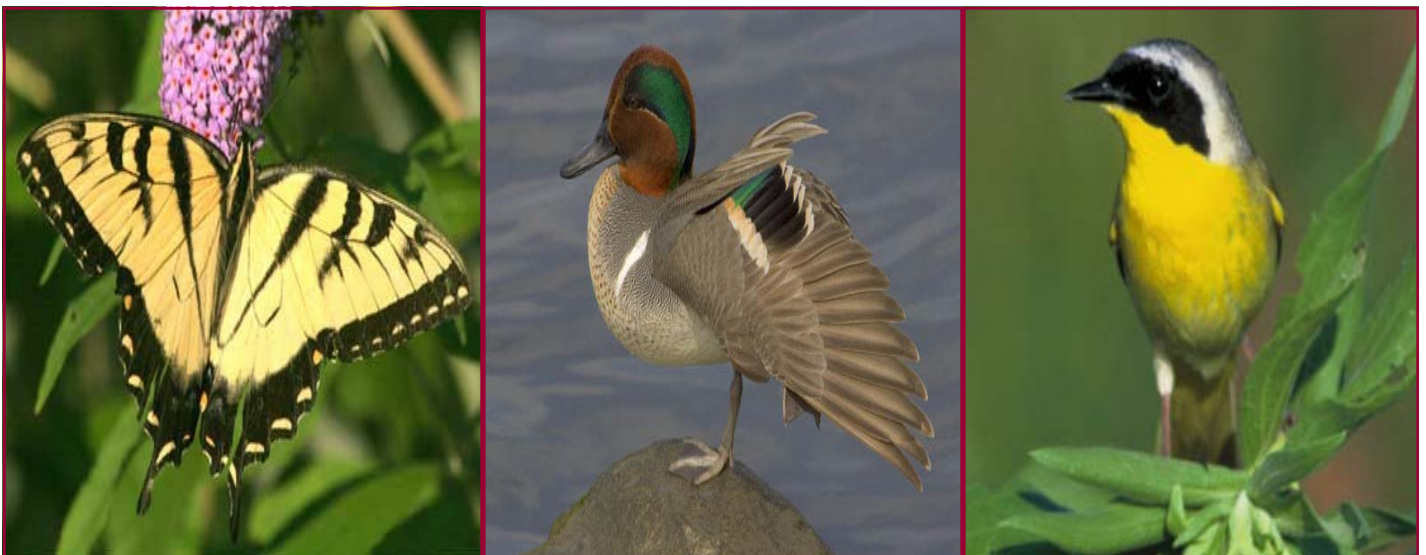
Ephemeral Pond Monitoring in 2011

By Dexter Porter

2011 found me and another interested friend doing our third year of monitoring ephemeral ponds. This year we monitored four ponds. Last year the sites were in a forested landscape. In 2011 we selected sites that were back in the open field setting. As in 2009, we found more organisms living in the ephemeral ponds in the open field environment. We expect that the open sites have more fertility and are exposed to additional heat units from the sun. For whatever reason, the ephemeral ponds located in the open field setting have an abundance of insect and amphibious life.

Some of the observed highlights were: an increased number of both leopard and green frogs being present during our field visits. This increased number was also up from 2009. We observed our first water scorpion this year. It was undergoing metamorphosis during our July visit. Bird species seen included a green wing teal that appeared to be using one of the ponds as a nesting site. During our first visit a common yellowthroat warbler was busy in a green ash tree. In August, we spooked a solitary sandpiper off one of the ephemeral ponds. As we left the site it returned to continue its investigation of the exposed pond bank. Cicadas were also heard during our July visit. Finally, in late summer we saw the most eastern tiger swallowtail butterflies that I have ever seen. They were attracted to the flower blossoms of the common bull thistle. There must have been fifteen to twenty individual swallowtails working this small area. Several other butterfly species were also present including the sulfurs, and the cabbage white.

To sum up we confirmed that the four ephemeral ponds were indeed ephemerals. However, as volunteers doing the field investigation on this project, the real joy is finding the unexpected wonders of nature. Whether it's observing the wetland characteristics and the organisms that live there, or finding that wildflower in full bloom. Stimulating ones curiosity and continuing to learn whether it's a new critter or a new plant that catches your eye, it is a satisfying experience to be in the field. I would encourage anyone who desires to learn more about their natural environment to volunteer with the project. If Anyone is interested in getting involved with this project in 2012, I would be willing to assist them in learning the steps.



Above: Observed highlights of the ephemeral pond monitoring include an eastern swallowtail butterfly, a green wing teal and a yellowthroat warbler.

BITS FROM THE BASIN

Rhythms on the River



Left: David H.B. Drake provided a wonderful musical backdrop for our "Rhythms on the River Celebration" September 7 at the Highland house Restaurant in Sheboygan.



Above: WDNR Office of Great Lakes Director, Steve Galarneau.
Below: Sheboygan County Executive, Adam Payne.



Above: More than 50 people joined us for Rhythms on the River. It was a fun event!
Below: U.S. EPA Project Manager, Ted Smith.



Below: Debbie Beyer-UWEX presents Mike DeMaster with a 2010 Watershed Leadership Award.



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Explore and Learn More!

Wisconsin Great Lakes Areas of Concern
(including the Sheboygan River)

<http://fyi.uwex.edu/aocs>

<http://dnr.wi.gov/org/water/greatlakes>

For more activities and information on issues in our watershed please visit
www.sheboyganrivers.org.