

Water Quality and Biological Characteristics and Responses to Agricultural Land Retirement in Three Streams of the Minnesota River Basin, Water Years 2006-08, USGS Scientific Investigations Report 2009-5215, by Christensen, V.G., Lee, K.E., Sanocki, C.A., Mohring, E.H., and Kiesling, R.L.

The U.S Geological Survey and the Minnesota Board of Water and Soil Resources, with partial funding provided by the Legislative-Citizens Commission on Minnesota Resources, assessed water-quality and biological characteristics in three streams in the Minnesota River Basin using data collected during 2006–08. In general, total nitrogen, suspended-sediment, chlorophyll-a, and fish resource quality in streams improved with increasing land retirement. Index of biotic integrity (IBI) scores increased as riparian land-retirement percentages increased. Data and analysis from this study can be used to evaluate the success of agricultural land retirement programs for improving stream quality and may have implications for prioritizing land in retirement programs in the Minnesota River Basin and other basins.

For full report: <http://pubs.usgs.gov/sir/2009/5215/>

Global Climate Change Presentation

Will Steger, polar explorer and climate change activist, will help the Freshwater Society begin its celebration of 2010 – The Year of Water. You are invited to hear Mr. Steger talk about his passionate interest in global climate change and its effect on water resources, and you are invited to help us inaugurate this yearlong effort to enlist Minnesotans in activities that value, conserve and protect water.

When: January 26th (Tuesday) at 7 p.m. Where: Gray Freshwater Center, 2500 Shadywood Road in Excelsior. Seating will be limited, so if you can join us, please register now. If you cannot join us, please indicate that as well. We hope you can be a part of this interesting and important event. RSVP by going to the web site: <http://freshwater.org/2010Kickoff/>

2010 – The Year of Water is a year-long campaign to raise awareness of the growing water issues in Minnesota. The campaign provides a variety of educational and outreach activities to target the critical issues of groundwater sustainability, groundwater quality and surface water quality.

Ney Nature Center – January and February Programs

Don't Hibernate this January and February! The Ney Nature Center will be open Saturdays and Sundays in January and February from 1:00pm to 4:00pm. Come snowshoe or cross country ski (some equipment available). Relax inside while finishing a puzzle, bird-watch at the feeders, kids activities, or read books out of our library. Enjoy some hot chocolate after sledding or skating by the pond.

Or Join us for these programs: Local Expert, Saturday Morning Coffee Series, January 9th – 9 a.m.

Wood Carving presented by Orville Heitkamp and Karl Keup

Orville Heitkamp is a self taught wood carver of about 25 years experience. A local resident of Belle Plaine and former high school physics, Chemistry, and biology teacher of Belle Plaine High School. He specializes in bird carvings in a variety of woods and finishes, and from life size to smaller scale pieces. Example of all stages of a carving will be presented and a finished piece will be awarded to someone in attendance. Karl Keup began wood carving with Orville and has recently taken up caricature carving. He has had instruction in the techniques from carver Marv Kaisersatt of Faribault. Karl also lives in Belle Plaine. The Second Saturday of each month the Ney Nature Center invites you to join us for an informational presentation and discussion presented by locals. Topics will vary monthly so watch our website calendar and newsletters for the list of upcoming presenters, topics, and program descriptions. (Program offered at no cost, donations appreciated.)

Lil' Ney Naturalist (and their folks) Third Saturdays in January, February, and March at 10:30 a.m. Allow your preschooler to explore the natural world, looking for bugs, birds, animals and their signs! Lil' Ney Naturalist will enjoy learning through nature hikes, games, stories, songs and seasonal activities.

Dates: The third Saturdays of the Month: January 16th, February 20th, and March 20th from 10:30 am – 11:30 am Cost: \$12.00 per family w/NNC Family membership, \$15.00 per family for non-NNC Members. Please call 507-248-3474 for more information or to register.

Nature in Winter Presented by Beth Beuch on January 17th at 2:00pm

How do plants and animals survive when the cold winds blow and snow piles up against our doors and windows? Come to this program to learn about hibernation, adaptation, migration and the world under the snow. Cost: \$5.00 per family w/NNC Family membership and \$2.00 per individual w/NNC membership, \$7.00 per family for non-NNC Members and \$3.00 per individual for non-NNC Membership. After receiving her Bachelor's Degree in Wildlife Ecology, Beth spent 20 years traveling and teaching nature education at State Parks, National Parks and Nature Centers in Minnesota, Pennsylvania, and Virginia. Beth says, "It is great to be back home and have an opportunity to introduce the hometown-folks to this great natural resource right in our own backyard."

Upper Cannon River Assessment Project Open House

Want to know what's going on with the lakes and streams in your area? The public is invited to an Open House to learn about the findings from the Upper Cannon Assessment Project that has been going on since 2007 to study the water quality in the Cannon River and several of the lakes it flows through in the Waterville area. Staff from the Cannon River Watershed Partnership, Le Sueur County Environmental Services, the Minnesota Pollution Control Agency, DNR, and our other project partners will be there to share our findings about and more importantly to listen to ideas on solutions to the water quality problems. The meeting will be held on January 14th at 7 PM at the Waterville Senior Center, 220 East Paquin Street, Waterville, Minnesota. Light refreshments will be provided. Please contact Beth Kallestad at Cannon River Watershed Partnership at (507) 786-3913 or via email at beth@crwp.net if you have questions.

Job Announcements:

Mussel Research Internship – 2010

The Minnesota Department of Natural Resources may be filling up to 8 student intern positions to assist with mussel surveys, monitoring, host identification, and propagation of endangered species. Positions will be based in St. Paul or Lake City, Minnesota, but will travel statewide. Start date is somewhat flexible, but is expected to begin by May 17, or soon thereafter, and continue to at least August 27 (POSSIBLY extending through mid October).

Duties include (but are not limited to):

- Diving in large rivers such as the Mississippi and St. Croix
- Sample mussels in streams, rivers and lakes while snorkeling or diving
- Quantitatively sample mussel beds to establish long-term monitoring stations
- Assist with endangered mussel propagation and reintroduction activities
- Assist with host identification studies
- Collect and maintain live native fishes
- Operated GPS receiver and light microscope
- Maintain and organize field and SCUBA equipment
- Prepare and label voucher specimens
- Operate state vehicle, tow and launch boat

SCUBA certification and Class D Driver's License or equivalent are required. Student interns must be enrolled in a degree seeking biology (or related) program. For more information:

<http://mavdisk.mnsu.edu/kudels/musselresearchinternship.pdf>

Shallow Lakes Internship

The Shallow Lakes Program will again be hiring 8 interns for the summer field season. They will be stationed at Brainerd (2), Glenwood (2), Madelia (2), and Marshall (2). The application deadline is February 5th. The major responsibility of these internship positions is to assist with surveying wildlife habitat in shallow lakes throughout Minnesota. Interns will prepare survey maps; conduct lake surveys –

including sampling aquatic vegetation, measuring water clarity and depth, and identifying waterfowl and other aquatic wildlife; write-up survey reports; and maintain equipment. Additional responsibilities may include data entry and miscellaneous office tasks. For more information <http://mavdisk.mnsu.edu/kudels/shallowlakesinternship.pdf>

Surface Water Intern

RMB Environmental Laboratories of Detroit Lakes is looking to hire an intern position geared toward someone planning on a future career in the field of surface water quality such as a freshwater ecologist, limnologist, biomonitoring, etc. This internship will provide a wide variety of experience in everything from fieldwork to data analysis. Responsibilities will include: Assist program coordinators with lake and stream monitoring program; Surface water data analyses: data entry, charting and graphing, statistical analysis, educational and management reports; Assist with citizen volunteer training workshops in lake and stream monitoring; Assist with online lakes monitoring database data entry; Assist with lake and stream monitoring fieldwork (collection of water samples and physical parameters) and Assist program coordinators with data analysis for publication. For more information: <http://mavdisk.mnsu.edu/kudels/rmbelsurfacewaterposition.pdf>

Field Services Intern

RMB Environmental Laboratories of Detroit Lakes is hiring a field services intern position geared toward someone planning on a future career in the field of surface water quality, but related fields may also apply. This internship will involve a lot of physical outdoor work. The intern will be outside 4-5 days a week, driving throughout Minnesota collecting water samples from streams and lakes. Certain trips may include overnight stays. Training will be provided at the start of the job. Responsibilities include: Assist program coordinators with implementing lake and stream monitoring programs; Surface water data analyses: data entry, charting and graphing, statistical analysis; Accompany Field Specialist with lake and stream monitoring fieldwork (collection of water samples and physical parameters). For more information <http://mavdisk.mnsu.edu/kudels/rmbelfieldinternposition.pdf>

Farm and Distribution Center Fulltime Assistant

Hidden Stream Farm of Elgin, MN is currently looking for a fulltime assistant to help in various tasks of providing local food to greater Minnesota. The applicant will assist in the day-to-day activities of the farm and distribution center.

Requirements for this job are a working knowledge of basic farm skills, possess the ability to safely operate a delivery truck in the Twin Cities and have good organizational skills to handle inventory and distribution. A college degree is helpful but not mandatory.

This is a year-round salaried position with lots of room for growth. This will be a challenging job that changes daily, but is also rewarding in caring for animals and providing customers with quality local food. Interested applicant may send a resume and cover letter to eric@hiddenstreamfarm.com

Events:

January 13th (Wednesday) is **Healthy Homes, Healthy Planet Workshop** starting at 6:00 p.m. at the SSND Conference Center in Mankato. Bring your own re-usable bottle and take some all-purpose cleaner home with you. We'll have recipes and sample products on-hand for you to see. Suggested donation \$5-\$10. (No one turned away for lack of ability to pay.)

January 14th (Thursday) is a **CRP presentation and citizen forum addressing CRP Acres**: what will be the impact of expiring parcels on water quality and wildlife? The presentation and forum go from 5:30 p.m. to 7:00 p.m. at the Montevideo Community Center (550 South 1st Street). Presentation by Dr. David Mulla, Professor with the University of Minnesota's Department of Soil, Water and Climate. He will present a research project that seeks to rank the statewide ecological sensitivity of expiring CRP parcels and others in order to identify lands that could be protected and develop a plan that optimizes wildlife corridors. For more information <http://mrbdc.mnsu.edu/calendar/pdfs/crpflyer.pdf>

January 19th (Tuesday) is the **Minnesota River Watershed Alliance quarterly meeting** starting at 6 p.m. with a social hour and the formal meeting at 7 p.m. at the Hutchinson Event Center (1005 15 South Plaza 15). This meeting will focus on choosing a 2010 "Clean Up the Minnesota River" issue.

January 20, 2010 (Wednesday) is **Perspectives on Water in our Changing World: From Climate to Culture** from 6:00 p.m. to 7:30 p.m. at Breck School (123 Ottawa Avenue North) in Golden Valley. This event promotes World Savvy's free online global affairs publication, the World Savvy Monitor (monitor.worldsavvy.org), *Perspectives on Water in our Changing World* will feature diverse viewpoints on water issues locally, nationally and globally from:

- Mark Seeley; Climatologist, University of Minnesota
- Deborah L. Swackhamer; Director, Water Resources Center
- Joan Nephew; Executive Director, Freshwater Society

For more information <http://www.worldsavvy.org/minneapolis>

February 3rd (Wednesday) is the **Hawk Creek Watershed Project Annual Meeting** starting at 8:30 a.m. with registration and going to 12:30 with a meal for those who send a RSVP email to hawkcreeksteph@redred.com before January 29th. The annual meeting will be held at the Kandi Entertainment Center (500 19th Avenue) in Willmar. For more information <http://mavdisk.mnsu.edu/kudels/hawkcreekannualmeeting.pdf>

February 18th (Thursday) is **Nutrients in Our Environment: Past, Present, and Beyond Conference** from 8:30 a.m. to 4:00 p.m. at the Verizon Civic Center in downtown Mankato. To register please call 651-201-6141. A \$10 registration fee includes lunch and refreshments. For additional information go to <http://www.upstreamheroes.org/nutmgmtconf.php>

February 20th (Saturday) is the **Clean Up the River Environment (CURE) Annual Meeting** starting at 6:00 p.m. at the Hollywood Theater in Montevideo. For more information <http://www.cureriver.org/events.html>

March 11-12, 2010 (Thursday and Friday) is the **22nd Annual Erosion Control & Stormwater Management Conference & Trade Show** in St. Cloud, Minnesota sponsored by the Minnesota Erosion Control Association. For more information: <http://www.mnerosion.org/>

Check out additional upcoming events and workshops on the Minnesota River Calendar at: <http://mrbdc.mnsu.edu/calendar/index.html>

[Water Quality Articles:](#)

[Minnesota family-farm groups urge independent EPA review of atrazine](#) (St. Paul Pioneer Press). Almost a dozen Midwestern family-farm groups urged the Environmental Protection Agency on Tuesday to give greater weight to independent science as the agency undertakes a re-evaluation of a popular and controversial weed killer.

[Whitney Olson, Woodbury's official tree counter, says it's not as easy as one, two, three](#) (St. Paul Pioneer Press). 23-year-old Whitney Olson, Woodbury's official tree tallier, is charged with locating, measuring, identifying and assessing the health of all the trees on 3,000 acres of city land.

[Feds oppose closing locks to stop Asian carp](#) (Associated Press). The Obama administration opposes closing shipping locks near Chicago to prevent Asian carp from invading the Great Lakes.

[Fighting formaldehyde exposure dangers](#) (Twin Cities Daily Planet). Minnesota Senator Amy Klobuchar is co-sponsoring a bill to establish national health standards for formaldehyde in composite wood.

[Proposed smog rules would require changes in Minnesota](#) (Minnesota Public Radio). The federal Environmental Protection Agency is proposing stricter health standards for smog, and Minnesota may have some work to do to meet the new standards.

[Public invited to 'listening sessions' about state's lakes and rivers](#) (MinnPost). Here's a chance for those who care about Minnesota's wealth of lakes and rivers to sound off about official water priorities – and to do it at a crucial time for state's investment in those waters.

[Council OKs Legacy Amendment funding](#) (St. Paul Pioneer Press). The Lessard-Sams Outdoor Heritage Council recommended Thursday that the Minnesota Legislature approve \$56.2 million for conservation projects tied to a second round of Clean Water, Land and Legacy Amendment spending.

[Dennis Anderson: Legacy fund battle not over](#) (Minneapolis Star Tribune). Some legislators disagree with outdoorsmen over the definition of what "protect" means in regards to clean water.

[Major trout-stocking changes coming](#) (Minneapolis Star Tribune). The Department of Natural Resources will eliminate trout stocking in 60 lakes and streams and close part of its French River Hatchery near Duluth as part of a major change to its statewide trout program.

[Locks stay open while U.S. Supreme Court considers Asian carp lawsuit](#) (Minnesota Public Radio). Shipping canals near Chicago will stay open at least another week, while the U.S. Supreme Court prepares to consider a lawsuit seeking to keep Asian carp out of the Great Lakes.

[Xcel Energy awards \\$945K to Minnesota Chamber of Commerce affiliate to promote energy efficiency](#) (MinnPost). When Xcel Energy laid out its map on how to help customers boost their energy efficiency by 35 percent over the next three years, the utility already had a game plan in place.

[Counties look to wind power for energy, income](#) (Minnesota Public Radio). The nation's increasing focus on renewable energy has sparked interest in wind energy projects throughout Minnesota and counties are taking notice.

[Deer kill drops below 200,000](#) (Minnesota Outdoor News). Deer hunters killed fewer than 200,000 deer during the 2009 seasons, the first time since 1999 the kill has dropped below that level.

[DNR roundtable kicks off Friday](#) (Minnesota Outdoor News). The precipitous decline of waterfowl in the state will be one of the main themes at this year's DNR_Roundtables, set for this week in Brooklyn Center.

[Duck hunting's unfriendly skies](#) (Minneapolis Star Tribune). "Crisis" wasn't in the plan -- the decline of ducks in Minnesota will be discussed at the DNR's "roundtable" meetings this week.

[Peterson waffles on House climate bill](#) (Minneapolis Star Tribune). Blue Dog Democrat Collin Peterson, who played a major role securing rural lawmakers' support for cap-and-trade legislation this summer, said today he would vote 'no' if a similar bill returned to the House for final passage.

To live by a large river is to be kept in the heart of things. – John Haines

The Minnesota River Watershed Alliance (Watershed Alliance) is an organized network of citizens, public agencies, and private organizations dedicated to communicating the benefits of an ecology healthy Minnesota River Watershed to others and are actively working towards its improvement and protection. We meet four times a year and encourage landowners and recreational users of the river to be part of the effort. For more information on the Watershed Alliance:

<http://www.watershedalliance.blogspot.com>

Please register at the Minnesota River Watershed Alliance's bulletin board at <http://mail.mnsu.edu/mailman/listinfo/mrwa> to receive regular updates on what is happening in the Minnesota River Watershed.

Thanks,

Scott

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