



MinnAqua Moments with Fishing: Get in the Habitat!

August 2008

Minnesota DNR
MinnAqua Program

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Welcome Back

By Jenifer Matthees

Greetings everyone! We know many of you run on a school calendar year and may just be returning to your offices or gearing up for your next season of programs and lesson plans. We hope you spent some time Fishing... getting in the habitat! and enjoyed your summer vacations, we'd like to say welcome back!

MinnAqua has had a full summer of **Fishing: Get in the Habitat!** programming and holding workshops for educators across the state on using our Leaders Guide. We're also planning our schedules so read on for upcoming workshops to share with your friends or to attend yourself. This e-newsletter has a bit of a focus on what others are doing in the realm of environmental education and getting youth connected with the outdoors. Are you or your group someone we should highlight in a future e-newsletter? Let us know! Want some idea of where to go fishing? Check out Piers and Places where we've highlighted a few of Minnesota's State Parks. Of course we have book reviews, tips for our featured lesson, a species profile and fishing equipment tips.

Thanks for your time...fish on!



Remember Us?

MinnAqua is sending you this newsletter because you have received the new leader's guide, **Fishing: Get in the Habitat!** either through a training workshop or you have requested information about the leaders guide. If you would like to be removed from our mailing list please let Jenifer Matthees know by contacting her at 651-259-5217 or jenifer.matthees@dnr.state.mn.us.



MinnAqua Workshops Across the State - Open To All

In October, 2008 the MinnAqua Program is providing workshops across the state that are open to anyone who would like to learn about their new **Fishing: Get in the Habitat!** Leaders Guide.

Since April of 2007, the MinnAqua staff have been providing workshops by request for schools, colleges, and other education learning centers. The series of workshops in October are for educators who may not be able to schedule a private workshop. These workshops are for youth leaders, environmental educators, interpretive naturalists, teachers, those who have not received materials about the MinnAqua program and those that have only received a MinnAqua Leader's Guide CD at a conference, in the mail, or in person.

In the training workshop, participants explore the lessons and activities in a way that is engaging and hands-on. Consequently, they quickly see that **Fishing: Get in the Habitat!** is not only user-friendly and scientifically illustrated with hundreds of images, it is also a resource that is fun to use. Further, the workshops help educators learn from experience how these lessons will help them address their existing objectives; engaging their students in learning that is challenging, relevant, and fun! This resource helps educators connect their students meaningfully to their local Minnesota aquatic resources; introducing the students to the life-long, healthy, outdoor activity of fishing.

We've received a great many enthusiastic comments from teachers who have attended our workshops, such as:

- "It's beautiful, I can't wait to start using these lessons."
- "We wish you wrote all our textbooks"
- "It's much more than I expected it would be."
- "My students can learn, and then mentor younger kids."
- "It's great for nearly all grade levels."
- "Great workshop!"
- "It's very comprehensive - I'll be able to get rid of all my other stuff!"

If you have a group of educators who would like to schedule a MinnAqua **Fishing: Get in the Habitat!** workshop, contact us!

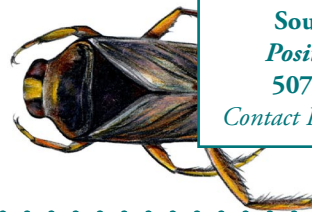
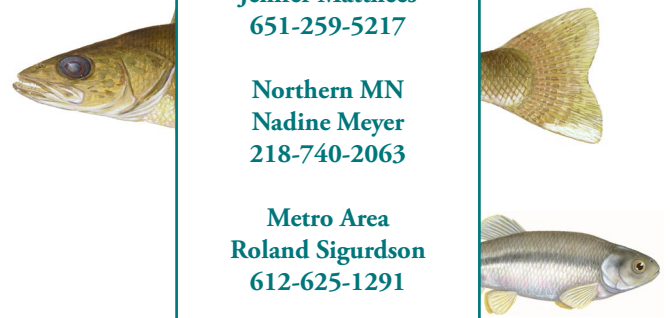
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- October Public Workshop Dates - Tell your Friends Register Now!
- Saturday, October 11 9 a.m. - 3 p.m. - Twin Cities Metro Area - Contact Michelle Kelly
- Monday, October 13 4:30-8 p.m. - Twin Cities Metro Area - Contact Roland Sigurdson
- Thursday, October 16 9 a.m. - 3 p.m. - SW Minnesota - Contact Roland Sigurdson
- Friday, October 17 9 a.m. - 3 p.m. - North East Minnesota - Contact Nadine Meyer
- Saturday, October 25 9 a.m. - 3 p.m. - North West Minnesota - Contact Nadine Meyer

Species Profile** - Close-up on the Channel Catfish

By Roland Sigurdson

Channel Catfish: *Ictalurus punctatus*, from the Greek ictalurus (fish cat) and punctatus (spotted)

Channel catfish are exciting sport fish and tasty table fare that are becoming more and more popular with Minnesota anglers. They can be found in large and small rivers, lakes, and ponds. In Minnesota, channel catfish are common in the Minnesota River, Mississippi River, St. Croix River, and Red River of the North. Channel catfish can also be found in many of our inland lakes, especially in the southern half of the state.

Identification

General description: The channel catfish is a comet shaped fish with a forked tail, flat head, barbels (sometimes called whiskers), and smooth skin. Its mouth is wide and flat with bristle-like teeth. The scale-less body is silver-gray to black in color with scattered black spots on the back and sides (spots disappear from larger, older fish). In order to correctly identify the channel catfish take a look at **Lesson 1:3 – Fish Families** to learn about all the members of the Catfish Family.

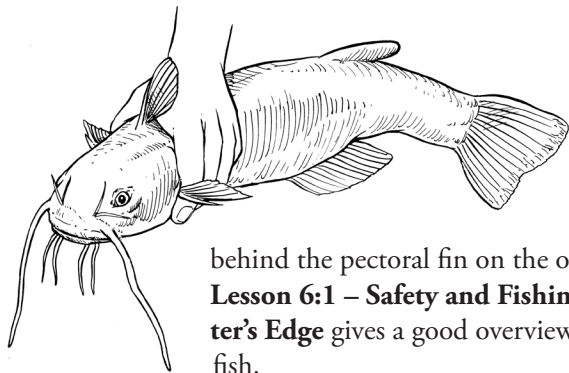
Food

Channel catfish eat crayfish, insects, snails, small clams, worms, fish, and the seeds of elm and silver maple trees. They primarily feed at night, which is the best time to catch them. Because catfish have an enhanced sense of taste and smell, they frequently find their food using these senses. **Lesson 2:1 – Fish Sense** has a great overview of the extraordinary sense of taste of the catfish.

Handling

Catfish can't "sting" you. But these fish have sharp spines, one in the top (dorsal) and one in each side (pectoral) fin. If you're not careful, you can accidentally poke your hand on these spines.

When handling a catfish (or bullhead) grasp the fish firmly behind



the dorsal fin and place your thumb on one side behind the pectoral fin and your index finger

behind the pectoral fin on the opposite side. **Lesson 6:1 – Safety and Fishing at the Water's Edge** gives a good overview on handling fish.

Reproduction

Channel catfish spawn when water temperatures reach 75 degrees, usually in late June. The eggs are deposited in a jelly-like mass. After spawning, the male drives off the female and guards the



eggs. The eggs hatch in six to ten days, depending on water temperature.

Predators

As with any fish species, the smaller you are the more vulnerable you are to being eaten. Young channel catfish often fall prey to large freshwater fish such as flathead catfish and muskies.

Tackle

Use 8-12 lb. line; fish riffles/shallows off bottom at night with stink baits, crayfish, worms, minnows, or cut bait. Fish pools or cover during the day or after a rain. The Minnesota record channel catfish is 38 pounds, caught in the Mississippi River. Channel catfish can be caught from either a boat or from shore. Fishing with a group of friends for catfish on the shore of the river is a great way to spend an evening.

Preparation for Cooking

You've heard the expression 'skinning cats'? They were referring to catfish. Catfish (and bullheads) are prepared differently from most other species of fish. In order to clean your catfish for cooking, follow these simple techniques. Your first fish might not be very easy, but as with all new skills, you'll get better with practice.

For instructions on how to clean a catfish go to: http://www.upfishing.com/cleaning_catfish.html

Fun Facts

The channel catfish, like its relatives the flathead catfish, bullheads, stoncats and madtoms, are like "swimming tongues". Members of the catfish family not only have taste buds on their tongues and lips like other fish, but also have taste buds on their barbels, along the sides of their bodies, and even near their tail!! Can you imagine how much easier it is for them to locate food in the murky waters of a river because of this great adaptation?

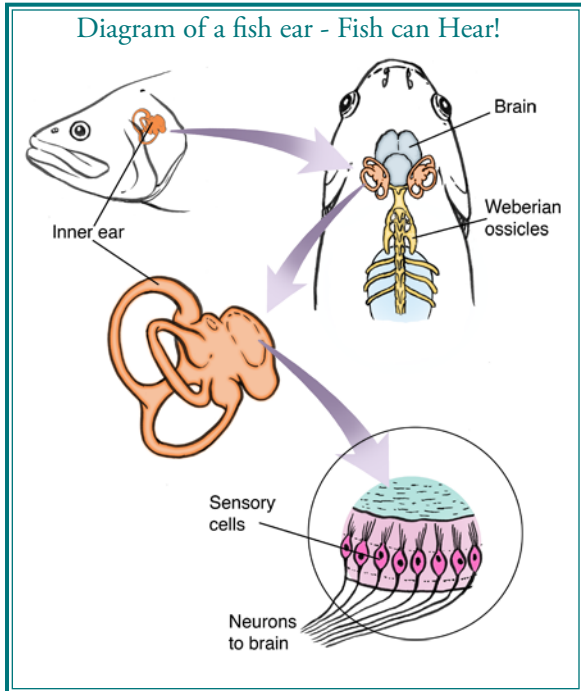
***Species highlighted in this section will be aquatic (fish, plants or bugs) or semi-aquatic in the case of shoreline plants. We'll try to rotate through the various fauna and flora of our aquatic ecosystems in order to help you to become familiar with some amazing organisms from our state!!*

Go to Page 4 for a simple, tasty catfish recipe.

Featured Lesson - Lesson 2:1 - Fish Sense

by Nadine Meyer

Chapter 2 of the MinnAqua Leader's Guide - Fishing: Get in the Habitat! focuses on Minnesota fish. Fish are incredibly fascinating



and our Leader's Guide is filled to the gills with fish information. Chapter 2 houses nine of our 39 lessons. The lesson highlighted in this newsletter is the first lesson in Chapter 2, **Lesson 2:1 - Fish Sense**.

Lesson Summary – Students touch and hold a fish (or a rubber replica of a fish) to explore the six senses of fish and gain a better understanding of fish behavior. They compare and contrast their own senses with those of fish. When students have become comfortable with handling fish, they apply paint to a fish and print its image on a sheet of paper using the ancient Japanese art form of gyotaku (gee-oh-tah-koo).

Tips & Tricks

- ☞ Put paint into small dishes and use small paint brushes. This helps reduce the amount of paint students put on their fish, allowing for a higher-quality print with less smearing.
- ☞ If a student puts too much paint on his or her fish, use a piece of scrap paper to do the first and possibly second print. Then the fish is ready for the high-quality final print. MinnAqua keeps blank newsprint on hand for just this sort of thing.
- ☞ Keep a couple buckets of water close by along with some scrub brushes for the students to use to wash their fish. This will prevent clogged drains and other potential messes that could occur when children are carrying painted fish to a sink for cleaning.
- ☞ Keep a set of fish for T-shirt printing with fabric paints separate from the fish used with other water-based paints. Fabric paints dry very fast and usually do not wash off of the real fish or fish replicas very easily.
- ☞ Keep a set of rags handy, instead of paper towels for drying fish before using them to print again. This reduces paper

waste. Make sure the fish are clean of paint before using the rags to dry them off.

- ☞ Be aware of wasp season if using real fish outside. If wasps are a problem, use one real fish to show the fish senses and use rubber fish replicas for the gyotaku activity.

Corrections & Updates*

Rubber fish replicas for fish printing can be found in a variety of places. The only company that sells 5" rubber bluegill replica individually is Acorn Naturalists. Their website is <http://www.acornnaturalists.com/>. Other companies sell rubber fish replicas; the replicas are generally sold in sets with ocean and freshwater species.

*Materials suggestions in Corrections & Updates are provided as an educational service and are not an endorsement by the MN Department of Natural Resources.

MinnAqua Lesson Connections

Teaching about fish senses ties in very easily with how to select fishing tackle. **Lesson 5:4 - Tackling Your Tackle Box** and **Lesson 5:5 - Flash Fish Catchers** are great lessons to use in conjunction with **Lesson 2:1 - Fish Sense**.

Check our website periodically for updates on the Leader's Guide and other MinnAqua activities.
www.mndnr.gov/minnaqua

Classic Fried Catfish

- ¾ cup yellow cornmeal
- ¼ cup flour
- 2 teaspoons salt
- 1 teaspoon cayenne pepper
- ¼ teaspoon garlic powder
- 4 catfish fillets or whole catfish
- vegetable oil

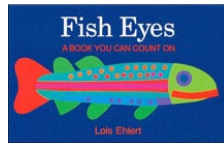
Combine cornmeal, flour, salt, cayenne pepper and garlic powder. Coat catfish with mixture, shaking off excess. Fill deep pot or 12 in. skillet half full with vegetable oil. Heat to 350°. Add catfish in single layer, and fry until golden brown, about 5-6 minutes, depending on size. Remove and drain on paper towels.

Makes 4 servings.

Book Reviews* - Minnesota Fishes

by Nadine Meyer

Fish Eyes By Lois Ehlert
Published by Harcourt Children's Books
ISBN 0152280502 Grades: PreK-1



Easy to understand, this book is written for the very young reader learning to count the brilliantly colored fish that swim through its pages. The story actively involves the reader in the lives of fishes, and teaches the child to count the fish as they begin their life cycles in wetlands. Readers are asked to imagine donning scales, fins, and tail for a downriver swim. Though the fish are imaginary they are designed with characteristics similar to trout, catfish, angelfish and others found naturally in fresh and salt water environments.

Available in hardcover, board, and paperback.



What is a Fish? by Robert Snedden
Published by Sierra Club Books for Children
ISBN 0871565455 Grades: 2-5

“In straightforward style, this handsomely designed volume presents fascinating information in large clear type, with lots of bright color photographs by Oxford Scientific Films and other dramatic illustrations. A series of double-page spreads cover how fish breathe, move, see, and hear underwater; how they reproduce; how and what they eat; and how they keep from being eaten. Technical terms (from lateral line detectors to pectoral fins) are explained in the glossary. An attractive introduction to the order and variety of one class of vertebrates.” Hazel Rochman - Booklist

Out of print, used books are available.

Fish of Minnesota Field Guide By Dave Bosanko
Published by Adventure Publications, Inc., Cambridge, MN
ISBN 1591931924 Ages 8-adult

This field-guide is pocket-sized and made with water-proof paper. Each fish is beautifully illustrated and key identification characteristics are inset on each page with illustrations. Illustrated comparisons are made to other fish with similar characteristics that may be easily mistaken for the fish being highlighted. Additional information about the fish's habitat needs life cycle and other interesting facts are included with each fish. The introduction to the book includes information on fishes in Minnesota, suggestions on where to go to learn how to fish in Minnesota, fish diseases, and much more.

**Book reviews are provided as an educational service and are not an endorsement by the MN Department of Natural Resources.*

Mentoring and MinnAqua

by Mike Kurre

Angling participation is declining at an alarming rate across the United States. We have lost more than 1.4 million anglers from 1991 to 2001 alone, and it doesn't take a rocket scientist to figure out that we've probably lost some additional youths and adults since then.

Thanks in part to you introducing the MinnAqua program to your students, Minnesota is not trending as poorly as the rest of the nation. But this is still shocking considering Minnesota -- with considerable public land and water access -- possesses so many advantages versus most of the rest of nation.

The good news is that, 85 percent of youths today show a strong interest in wetting a line by going fishing, according to the Fishing, Hunting and Wildlife Associated Recreation Survey.

The bad news is that they are not receiving the opportunities to access the resources, gear, mentors, social support and positive experiences they need to enjoy fishing as a life-long endeavor like most of us did when we were kids.

The bad news on top of bad news is that the average age of anglers is increasing with nobody to replace these fishing warriors after they have retired or slowed down their involvement with fishing and the outdoors. Ominous indeed!

Recently, state legislators approved a program devoted to mentoring for the sole purpose of focusing in on mentoring as a form of recruitment and retention for both angling and hunting. That's where I come in.

As the new mentoring program coordinator for the Minnesota Department of Natural Resources, I am charged with the tasks of:

- ☞ Establishing mentoring program liaisons in existing fishing and conservation organizations. Examples include, but are not limited to, Pheasants Forever, B.A.S.S., Sierra Club, Isaac Walton League, etc.
- ☞ Facilitating the recruitment of mentors to existing mentoring organizations.

OK, what do those jobs have to do with you?

Eventually, we will help match those relationships with organizations and professionals to help support your use of the MinnAqua curriculum.

In the meantime, don't be afraid to contact your local outdoors clubs (they know experts anglers in your area), fishing manufacturers (if you have one in your area) and outdoor retail establishments (for product and expert knowledge). Keep in mind that if you are asking for product, they receive hundreds of requests every year and have limited budgets. One other note, if in your conversations you find a way to help them promote their product/services or request a tour of the company with your class, that will go a long way in solidifying your partnership.

Continued on page 9

Community Connections - How One Dad Makes a Difference

by Michelle Kelly

Katie, soon to be entering 8th grade, is from Mahtomedi and has been fishing since she was two years old. One day Katie came home from a frustrating day in her 5th grade classroom and told her father, "Dad, girls don't fish. The boys are the only ones that talk about fishing and girls don't ever go."

Jeff Ledermann, Katie's dad, decided right then he was going to do something about that stereotype. Jeff has two daughters, Katie and Heidi. He is employed by the Minnesota Pollution Control Agency, and is an avid sportsman. Jeff knew it wasn't true that "girls don't fish". He has taken his daughters fishing with him often, and many of his daughters' friends' fathers have told him they frequently take their girls fishing, too.

Clearly, there was a perception problem about girls and fishing at his daughter's school.

Jeff came up with the idea of a fishing club - for girls. His hope was that at least in Mahtomedi, anyway, his daughters and their friends would know it was not only okay for girls to fish, it could be a whole lot of fun too!

That was three years ago. The Fishing Daughters Club has been going strong ever since.



Heidi (on the right), and her classmate Shea Ryan will both be 6th graders at Mahtomedi Middle School this fall. After participating in the Mahtomedi area Fishing Daughter's Club, Heidi had this to say: "I like spending time with my friends. It's great to see the smiles on my friends' faces when they catch a fish." Shea shares: "Fishing is very fun. The lakes we go to are great. I caught my first fish ever - a big bluegill! I can't wait to go again this summer!"

Jeff shared with me how he started the Daughters Fishing Club. One of the first things he did was to put together a specific set of scheduled evening fishing trips for the summer (this summer, five outings were scheduled). "That," according to Jeff, "has made it very easy for me to get the word out and in the busy worlds of these girls and their families -we have to wait for the summer soccer schedule before I set the dates. Having a set date on the calendar makes sure it will happen."

Interest in participating in the club has largely been generated through word of mouth by Katie's and her sister's friends' families. Jeff also worked through the Mahtomedi Community Education office to help get the word out to girls in the school district by providing flyers to all the teachers to send home with the kids.

Jeff emphasizes that it is important to keep things very simple. He wrote up some basic information and a set of "operating rules" for the club. This plan has delivered successful results and Jeff wants to let other parents know how easy and impactful it can be to set something up like this.

The following guidelines have been key to the success of the club:

- ☞ Focus on the girls – Jeff doesn't fish to make sure the girls are having fun and are successful.
- ☞ Bring food - take a break mid-way through the evening to eat snacks as a group at the landing or a park.
- ☞ Be intentional about lake choices - pick lakes that have lots of fish, especially panfish, to catch and one that has facilities (plenty of parking, picnic area and bathrooms are all ideal).
- ☞ Get prizes - the big fish of the night gets a nice trophy (engraved). Also have lots of other prizes (lures, etc.) for the "runner-ups". Jeff charges a small fee (\$10/family) to cover the cost of prizes and refreshments.
- ☞ Take pictures - the great photos have created permanent memories for everyone involved. And then share them with all the participants. Jeff makes a CD of the photos and gives them to the families in the fall.

Forming a fishing club in your area is a great way to get connected in the community, and get kids outdoors in the habitat. Just set it up, let everyone know about it (even boys) and go fishing!

This year, 2008, is the third summer for the Mahtomedi Daughters Fishing Club. Jeff knew he had accomplished his initial goal when Katie said this spring that all the girls were talking about Fishing Daughters Club at school and were eager to know the schedule so they could let their parents know. Imagine that – middle school girls talking fishing at lunch!!! Shea even wrote about her fishing trip last year for one of her main English assignments this past school year!

As we closed the interview, Jeff reflected, "It isn't very often that you can really feel like you've changed people's attitudes and created lifelong memories. Fishing Daughters Club is something I'm as proud of as anything else I've done."

If you have any questions or would like a copy of Jeff's club rules and information to help start a Fishing Daughters and/or Sons Club in your area-

Contact: Jeff Ledermann, 357 69th St N, Mahtomedi, MN 55115, 651-773-5537 (h), 651-215-0236 (w), 651-334-8894 (cell), pjledermann@aol.com (home)

Piers & Places - Fishing Our Great Minnesota State Parks!

By Roland Sigurdson

Minnesota has a long history of preserving special wilderness places in our State Park system. Throughout the state, most of us can travel to a state park facility in less than an hour and almost all of them have fishing opportunities. Here we highlight just four of the 69 state parks located throughout Minnesota. The four listed here have lake systems that offer fishing piers that are readily usable by youth groups and classrooms. By law, fishing piers must be accessible to all citizens and conform to ADA guidelines.

A number of the parks offer stream fishing, especially in the Southeast and Northeast, along Lake Superior. While streams can be a challenging location to take your group fishing, they do offer wonderful educational opportunities for habitat site studies. Streams often have the greatest diversity of aquatic life. These are perfect places to try **Lesson 1:4 – Water Habitat Site Study**.

One of the wonderful things about bringing your group to a state park location is that they will be able to see and understand how the local landscape looked before European settlement. Viewing the undeveloped shores of lakes and rivers in our State Parks provide a great opportunity to open a discussion about how natural shorelines can enhance and help preserve the water quality and species diversity in our aquatic resources. Consider using **Lesson 3:3 – Wonderful Watersheds** before heading out to the park to get your students thinking about how a landscape comprised of natural vegetation might differ from one that has been altered for other uses.

Hayes Lake State Park

Hayes Lake presents the opportunity to fish surrounded by an undeveloped shoreline, while listening to the splash of a paddle or the hum of an electric motor. Located within Hayes Lake State Park, this 180-acre reservoir presents the opportunity to catch largemouth bass, panfish, and northern pike. Outboard motor use is not allowed on the lake; so bring a canoe or boat with an electric motor. If you don't have a boat, you can use the fishing pier or pick a place on the bank near one of the picnic areas or campground.

Contact

48990 Co. Rd. 4, Roseau, MN 56751
(218) 425-7504

http://www.dnr.state.mn.us/state_parks/hayes_lake/index.html

Bear Head Lake State Park

674 acres of pure water wilderness! Located just south of the Boundary Waters Canoe Area, Bear Head Lake offers anglers a chance for a BWCA style experience without having to leave some of the modern conveniences behind...unless you want to do that, of course.

The more popular species to fish for at Bear Head Lake are walleye, bass, crappies, yellow perch and bluegill. Explore miles of shoreline by canoe or boat. Boats and canoe rental is available from the fishing opener (second Saturday of May) through the end of September. Also try the fishing pier accessible to all park visitors.

Contact

9301 Bear Head State Park Road, Ely, MN 55731
(218) 365-7229

http://www.dnr.state.mn.us/state_parks/bear_head_lake/index.html

Lake Maria State Park

Located just 45 miles west of the Twin Cities, Lake Maria State Park offers a chance to do some quiet fishing and picnicking in a one of the few remaining stands of the "Big Woods," a maple, oak and basswood forest that once covered part of southern Minnesota.

The fishing pier is a very short walk from the picnic area and parking lot. Some of the species available to anglers that visit the park are yellow perch, northern pike, black bullhead, bluegill, largemouth bass and carp.

Contact

11411 Clementa Avenue Northwest,
Monticello, MN 55362
(763) 878-2325

http://www.dnr.state.mn.us/state_parks/lake_maria/index.html



*MinnAqua Intern Chai Xiong fishing with youth at
Lake Maria State Park*

Sakatah Lake State Park

Sakatah Lake, a natural widening of the Cannon River, lures canoeists to paddle the calm waters, and anglers to catch walleye, large mouth and white bass, northern pike, freshwater drum, bluegill, yellow perch and crappie.

Anglers can access Sakatah Lake by boat at the public launch or from the accessible fishing pier.

Contact

50499 Sakatah Lake State Park Road, Waterville, MN 56096
(507) 362-4438

http://www.dnr.state.mn.us/state_parks/sakatah_lake/index.html

For additional information about family-friendly fishing lakes, check online at <http://www.mndnr.gov/takemefishing>.

School Spotlight - International Falls EE Programming

By Jeff Eibler, MinnAqua Fisheries Liaison

In October of 2007 approximately ten teachers from the International Falls School District were trained on the MinnAqua Leader's Guide during a regularly scheduled in-service training day. Jeff Eibler, the MinnAqua Liaison stationed at the Area Fisheries office in International Falls joined the teachers that day as well.

This past spring, Jeff received a request to assist Indus School near International Falls with some aquatic resource education programming. (The teachers at Indus have not had the opportunity to receive training on the MinnAqua Leader's Guide, Fishing: Get in the Habitat! as of press time.) Jeff used the MinnAqua Leader's Guide to present aquatic resource activities for the students at Indus.

In an email to Nadine Meyer, the Northern MN MinnAqua Education Specialist, Jeff described the activities he did.



**Students from Indus Elementary School
decorating their foil watersheds**

“The ‘Wonderful Watersheds’ Unit at

Indus went really well! We did the aluminum foil models in the classroom and then went outside. The indoor stuff took about an hour but I had a really awesome group (14 kids) and we spent a lot of time just talking about watersheds, human activities and their impacts to water quality.

“We then had a picnic lunch at Manitou Rapids on the Rainy River and then lifted a trap net that I had set the day before. I was thinking that by catching a few fish I could show them that there are critters in our rivers and lakes that depend on clean water and quality habitat and that clean water is dependent on wise use of our watersheds. We managed to catch about 8 white suckers so the kids were stoked! I was relieved.

“Anyway, just wanted to pass along what I consider a success story.”

Jeff's work with the local school district is definitely a success story.

The Fisheries Biologists in International Falls also get involved with other events including the annual Environmental Education (EE) Days for 5th grade youth in International Falls and the surrounding communities. EE Days provides students with an opportunity to interact with and learn from experts in various outdoor or natural resource related fields. In 2008, seven learning modules were available for students to experience and presenters included MDNR Fisheries (including the MinnAqua Staff),

MDNR Wildlife, Boise Cascade, Forest Capital, Koochiching County Soil and Water District, Voyageurs National Park, The Coast Guard and Koochiching County Lands and Forestry.

During the day-long event, students, in groups of about 8-12, spend about 35 minutes at each module and then at set times,

marked by the sound of a horn, rotate to the next module. In 2008, 150 5th Graders from International Falls, Littlefork, Big Falls, Indus and St. Thomas School learned about boat and water safety, wildlife, sustainable forest management, orienteering and map use, Minnesota fish and the importance of clean water to them, paper making and the impacts of humans on the landscape. The only break students take during the day is for a picnic lunch! The event spans two full days to allow each 5th Grade Section to take part while keeping group sizes small. The event takes place outside and has never

been cancelled due to the weather.

Jeff Eibler, Fisheries Specialist with the DNR said, “The Falls Area EE Days is an extremely successful event for us that we want to take part in. We invest a great deal in terms of staff time capturing fish and presenting to the kids. But the payoff is worth it. In a relatively short amount of time we are able to reach a large number of kids about the importance of taking care of our aquatic habitat and the fish that reside there. Getting this message across to our youth is one of the most important things we do.”

MinnAqua Liaisons are DNR Fisheries Biologists who are trained on the MinnAqua Program and 5% of their time is devoted to delivering educational outreach programming. MinnAqua Liaisons choose how to deliver their 5% based on their strengths and interests. Some provide the type of services Jeff described, some work more with adult groups, some may serve as writers or reviewers, and others work with the MinnAqua Staff on displays and other projects.

Every Area Fisheries Office has a designated MinnAqua Liaison. The Area Fisheries Offices are located throughout the state. For a PDF map of the Area Fisheries Offices with contact phone numbers go to <http://www.mndnr.gov/fisheries/index.html> click on the link “Map of Fisheries field offices and staff”. The staff listed on the map are the Area Fisheries Supervisors who will be able to direct you to the MinnAqua Liaison in that office.

Fishing Equipment & Tips - Sinkers and Lead Safety

by Michelle Kelly

A sinker is a weight attached to your fishing line about 6 - 10 inches above the hook. It forces a hook with bait to sink and keeps your bait down near the lake or river bottom, where most fish swim. For most shore fishing, pinch on one or two small split-shot sinkers on your line. Use only enough to sink the bait. If the fish feels too much weight it will quickly drop the bait.

Traditionally, sinkers have been made of lead because it is inexpensive, easily molded and dense. When sinkers are lost through broken line or other means, birds can inadvertently eat them. Water birds like loons and swans often swallow lead sinkers when they scoop up pebbles from the bottom of a lake or river to help grind their food. Eagles ingest lead by eating fish which have themselves swallowed sinkers.

Lead has been proven to be toxic when ingested by humans, water fowl and other aquatic animals. Lead has adverse effects on the nervous and reproductive systems of animals. It takes only one lead sinker or jig to terminally poison a loon.

There are inexpensive and safer alternatives to lead sinkers available at many fishing equipment stores made from other materials such as tin, bismuth, steel, ceramic and tungsten-nickel alloy. If your fishing tackle provider does not stock lead alternatives, request they do so.

Teach your students good stewardship choosing lead-free tackle and letting your students know about the variety of lead-alternative choices available. Another great way to help is to outfit your tackle boxes with non-lead tackle. Inexperienced anglers tend to lose the most sinkers. By using lead-free alternatives, you and your students will be cutting down on the amount of lead getting left behind in Minnesota lakes and rivers.

To help anglers clean out their tackle boxes and make the switch to non-lead sinkers and jigs, the Minnesota Pollution Control Agency and Minnesota DNR have partnered with retailers, lake associations, and conservation and outdoors groups to offer lead tackle exchanges across the state. For more information go to: <http://www.dnr.state.mn.us/eco/nongame/projects/leadout.html> and <http://www.pca.state.mn.us/oea/reduce/sinkers.cfm>

To request a copy of the DNR Nongame Wildlife Program, "Loons & Lead Poisoning" poster, contact the MN DNR Information Center at <http://www.dnr.state.mn.us/contact/index.html>.



Example of a steel split-shot sinker

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Currently, I am identifying manufactures, retailers, professional anglers and other existing outdoors groups that can enhance the learning curve of a school's fishing program. The DNR Division of Fisheries wants to help meet your needs as you engage youth in the outdoors through fishing. Opportunities to connect you at the grass-roots level to your community is a high priority because we know that is where the best partnerships happen and will last!

I hope you have a wonderful summer enjoying the outdoors and remember to hook 'em where it counts, on the outdoors!

Contact Mike Kurre at michael.kurre@dnr.state.mn.us to share your local connections or to receive advise on how to make local connections in your community.



Resources to Support Environmental Education

Grant for Native Plants: Seeds For Education

<http://www.for-wild.org/sfecvr.html>

Application Deadline: Nov. 15

MN Conservation Volunteer's
Young Naturalists Educator Guides

http://www.dnr.state.mn.us/young_naturalists/index.html