



MinnAqua Moments

MinnAqua



Fishing: Get in the Habitat!

May 2012

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Shore Fishing and Bullheads

by Nadine Meyer, Newsletter Editor

A short walk, bike ride, or drive to a nearby lake can provide a fine opportunity to catch a fish to admire and release or keep and eat.

In this issue of MinnAqua Moments our [Species Profile](#), [Fishing Equipment & Tips](#), [Piers & Places](#), and [Featured Fishing Spots](#) articles highlight shore fishing and a common catch: bullheads. For a sample of light reading to take along on your fishing trip check out the [Book Reviews](#), which features the catfish family.

This issue's [Featured Lesson](#) focuses on the aquatic plants that inhabit the shorelines. The [Mentoring](#) article showcases a family with girls that got so excited about fishing they created a club to help share their fishing knowledge.

Don't forget to check out the [Updates & Opportunities](#) section for links to grants, programs, and other local offerings available this spring and summer.

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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.

Featured Lesson

Lesson 4:3 - Aquatic Plant Power

by Michelle Kelly, Aquatic Education Specialist

May 2012

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Chapter 4 of the MinnAqua *Fishing: Get in the Habitat!* Leader's Guide contains five lessons, all pertaining to understanding different concepts relating to Minnesota fisheries management. This chapter covers topics from fishing regulations and sportsmanship, to fisheries management techniques and tools, to our role as citizens in the management of Minnesota fisheries and aquatic resources. What role do aquatic plants play in the management of Minnesota Fisheries? Citizens, business leaders, and public officials need to understand how ecosystems function, how they support human uses, how human use impacts them, and

how resource management practices and land use patterns affect long-term ecosystem health. **Lesson 4:3 – Aquatic Plant Power** illustrates how plants impact water temperature, sedimentation and water clarity, and what that means in terms of survival for different species of Minnesota fish.

[Download the Lesson](#) 

Lesson Summary

Students will conduct experiments to explore two significant ways that aquatic habitats support fish reproduction and growth. In Part 1, students will create a fish-spawning habitat in a container and compare good and poor spawning conditions. In Part 2, students will compare water temperatures in shaded and non-shaded stream environments, investigating how shoreline vegetation creates suitable water temperatures for various types of fish.

Tips & Tricks

This lesson includes two different classroom activities. Part 1 is a demonstration showing how sedimentation can impact fish spawning habitat. Part 2 provides an opportunity for students to take temperature readings over time, and practice their graphing skills.

Part 1-The Next Generation

- You can find many excellent images and videos that illustrate spawning of different species of fish on the internet to share with your students. This **National Geographic video** of trout spawning is one example.
- Glass beads can be obtained from a variety of beading and craft supply sources on the web, including eBay. I Google searched “round glass beads clear” and found many vendors. Red beads instead of clear beads for the “fish eggs” might be more visible to students as you do the demonstration for the class.



Part 2-Be Cool

- You can set up this experiment as a class demonstration, or have students work in groups with their own supplies and materials.
- Use live potted plants in the demonstration, or purchase “silk” plants from a craft store and “pot” them in lumps of clay, or cans of Play-Dough.
- If your classroom has good sunlight exposure, set up the experiment on your classroom windowsill using sunlight as your light source instead of an electric lamp.



Diving Deeper

The lesson plan includes five extensions in the “Diving Deeper” section that will both reinforce and provide greater depth, increasing your students’ appreciation and understanding for the importance of aquatic plants for fish habitat and water quality.

MinnAqua Lesson Connections

By combining two or three of the lessons below with [Lesson 4:3 - Aquatic Plant Power](#), you can create a unit around the theme of aquatic plants and water quality or aquatic plants and fish habitat:

[Lesson 1:4 - Water Habitat Site Study](#) [PDF](#) (43 pages | 8.3 MB)

[Lesson 2:6 - Adapted for Habitat](#) [PDF](#) (35 pages | 3.5 MB)

[Lesson 3:2 - Function of Aquatic Plants](#) [PDF](#) (24 pages | 3.5 MB)

[Lesson 4:5 - Fisheries Management and You](#) [PDF](#) (35 pages | 3.5 MB)

Suggested Online Student Resources

Have your students access these online resources to engage in these concepts further.

- [Healthy Rivers: A Water Course instructional CD ROM](#) is a captivating program to understand the ecology and management of river and stream systems. Featuring 220+ screens of information exploring the complexity and diversity of river systems. Color photos and maps, illustrations, and graphic animations. Over 100 audio interviews, video clips, and music segments. More than 100 links within the program, 100+ links to external web sites, and a complete bibliography of over 100 references.
- [Restore Your Shore](#). This powerful multimedia program for shoreland owners and professionals is available online to use in implementing shoreland restoration and protection projects. It is a continuation of the DNR's lakescaping series, including, the very popular book *Lakescaping for Wildlife and Water Quality*. Numerous lakeshore restoration demonstration sites and a series of 14 shoreland property owner workshops followed the publication of the book.
- What every water gardener and shoreline restorer should know about harmful exotic aquatic plants [Download the pdf](#).
- MN DNR [Shoreland habitat and fisheries management](#)
- MN DNR [Stream Habitat Program](#)
- [The Value and Use of Vegetation in Stream Restoration](#) PDF brochure

Species Profile **

Bullheads

by Roland Sigurdson, Aquatic Education Specialist

May 2012

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Identification

Minnesota is home to three species of bullheads. It can be a little tricky to identify one species from another, but you'll probably know right away that it is a bullhead.

All bullhead species have an adipose fin between their dorsal and tail fins. This small fleshy fin lacks any hard, internal structures such as bone or cartilage. It feels much like your ear lobe. Bullheads have a rounded tail which will help you distinguish them from small channel catfish that have a forked tail. Bullheads have no scales, their bodies are covered with taste buds, and will be very slippery to handle. Finally, bullheads have a single, sharp spine in the dorsal and pectoral fins. Like other members of the Catfish Family, bullheads also have barbels ('whiskers') under their chin that help them located food.

Black Bullhead

Ameriurus melas - From the Greek words *ameiurus* meaning unforked caudal fin; and *melas* meaning black in color.

Color: Greenish brown to black on the dorsal side and yellow on the ventral, with a light colored bar at the base of the tail fin.



Food

Bullheads eat a variety of aquatic invertebrates such as crayfish, freshwater mussels, snails, and insects. They will also eat other fish, fish eggs, and plants. They will eat almost anything that can fit into their mouths.

Yellow Bullhead

Ameriurus natalis: from the Greek word *ameiurus* meaning unforked caudal fin; and the Latin word *natalis* meaning "having large buttocks".

Color: Yellowish brown to black with yellow belly.



Habitat

Bullheads are common throughout Minnesota's many lakes, rivers, and streams, but they are more common in the southern half of the state. They prefer slow moving, quiet waters that have soft bottoms made up of mud, sand, and gravel. They are able to tolerate turbid or murky/muddy water that many fish cannot. Bullheads are able to survive water with low oxygen content and often occur in large numbers in lakes that winter kill when other

Brown Bullhead

Ameriurus nebulosus: from the Greek word *ameiurus* meaning unforked caudal fin; and the Latin word *nebulosus* meaning clouded.

Color: Body is yellowish to black, but tends toward yellowish brown mottled with dark green. Yellow coloration on belly and lack of light bar at the base of the caudal fin.



fish die out. In short, bullheads can live in just about any aquatic habitat.

Reproduction

While there are some differences in how each bullhead species approaches reproduction, there are some generalizations we can make within this group.

In Minnesota, the spawning season for the bullheads starts in late spring and goes through early summer, when water temperatures are about 68-70° F. The female uses her fins to clean out a saucer-shaped nest in shallow water. She will seek out a location underneath matted vegetation, fallen trees, or overhanging banks. When the male swims near the nest, the female pokes his stomach with her head. Eventually, the two fish sit in the nest next to each other, facing opposite directions. The male touches the female's head with his tail fin repeatedly until she releases eggs. The male fertilizes them immediately. They repeat this spawning act several times over an hour or more and then again over the next few days until the female has laid all her eggs. Both parents fan and guard the eggs.

Once the eggs hatch, the male takes over parental care. He will continue to protect the young until they reach the size of about 1 inch in length. The young fish swim around in a tight little ball and any stragglers are chased back into the ball by the parents. Even after the parents leave, the young will continue to swim in a group (called a school) for many days as they begin to feed. Watch for these schools in the shallows of most lakes in early summer.

Predators

Bullheads have a single large, sharp spine at the leading edge of their dorsal and pectoral fins. When bothered, they lock these spines in a straight-out position making the fish very hard to swallow. They also produce a mild poison that runs down the spines and into the wound of a victim punctured by one of these spines. While the poison causes a stinging or burning sensation if you are punctured, it is essentially harmless to humans. The protective and the species' preference for eating mostly at night make bullheads an uncommon prey for other fish. Walleyes, northern pike, flathead catfish, turtles, great blue herons and otters eat small bullheads up to four inches long. People eat larger bullheads.

Fun Facts

- Catfish exist throughout the world, but the Ictaluridae family lives only in North America. There are nine species in Minnesota: three catfish species (flathead, channel, blue), three types of bullheads, and three smaller fish species (madtoms and stonecat).
- Catfish bodies are covered with taste buds instead of scales. These many taste buds—and the barbels—help catfish locate food.
- The Flathead catfish is the second largest fish in Minnesota waters. The state record was 70 pounds and came from the St Croix River

Fishing and Handling & Preparation for Cooking

For more information go to the May 2012 Fishing Equipment & Tips article: [Catching and Handling Bullheads and Catfish.](#)

Fishing Equipment & Tips

Catching & Handling Bullheads and Catfish

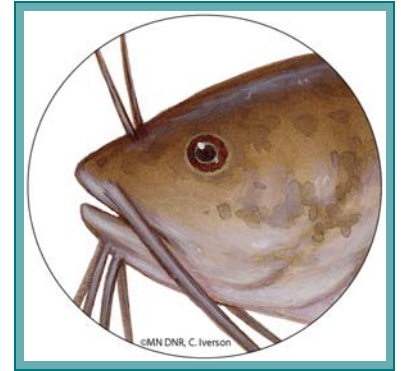
by Michelle Kelly, Aquatic Education Specialist

May 2012

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When I'm with a group of kids teaching about fish and fishing, I find no other fishes capture the rapt, wide-eyed attention that the freshwater family of catfish engenders. Even Mark Twain knew the attention catching value of a good cat tale when he wrote about Huck Finn and his companion Jim catching a catfish in the Mississippi River "that was as big as a man, being six foot, two inches long, and weighed over 200 pounds. We couldn't handle him of course..."

With their dark, scale-less and slimy skin; soft, flat-bottomed bellies; six mysteriously long trailing whiskers or "feelers" (barbels); sharp, menacing, venom-tipped dorsal and pectoral spines; gaping soft- but tough-lipped mouths and iron-grip jaws; the ability to survive in oxygen-poor conditions where more handsome fishes cannot; and the heightened sensory perception a body covered in taste buds from nose to the tip of their tail provides – and that enable them to successfully ferret out food where they lurk in the murky depths that render their smallish eyes rather useless... I mean, how cool can fish get?!



Their fascinating, relatively freakish features are the makings for incredibly fun fish stories where separating facts from fiction can be quite a challenge - and are a sure bet to keep a group of kids engaged!

And with MinnAqua's *Fishing: Get in the Habitat!* leader's guide, you can take kids catfish and/or bullhead fishing so they can start building their own repertoires of fanciful fishy stories!

In addition to being inspirational fodder for fish tales, both bullheads and catfish can be counted on to bite on just about any bait you offer, just about any time of day or night, always give you a good fight, and despite their somewhat nefarious reputations – they make quite a tasty meal!

Here are some tips that can help your bullhead and catfish fishing forays be successful:

Habitat and Equipment

- Bullheads are gregarious, travel in large schools, and live along the bottoms of warm lakes, slow-moving streams, quiet backwaters, and vegetated shallows.
- Being bottom feeders, bobbers are often unnecessary for bullheads – especially on a windy day when moving bobbers can lift bait off the bottom and away from the fish. And you usually won't need a bobber to tell you when a determined bullhead hits your line!
- For bullheads, use about a 6 lb. test line, and smaller hooks (sized 2 to 1/0) with long shanks. Bullheads often swallow hooks and longer shanked hooks are easier to remove.
- Catfish prefer cooler deeper water than bullheads, with sandy or gravel bottoms. In daylight hours, look for catfish to be hiding in deep pools, among rocks or logs. Catfish are mostly bottom feeders, too, but channel cats will also grab a meal from the surface. Some of the biggest catfish ever caught have come from the Mississippi River. For Channel Catfish, the Red River of the North is famous.
- For catfish do use bobbers, heavier test line (8 – 10lb.), a heavy slip weight to keep your bait still in river currents, and leaders about 12 – 24 inches long.
- Bring along assorted hook sizes (6 – 1/0.)

Bait

- For bullheads, angle worms and nightcrawlers are standard baits but these fish –will eat just about

anything they can swallow. Use up your leeches, live and dead minnows, pieces of chicken, beef, hotdogs, marshmallows left over from last night's dinner, dough balls, stink bait...

- For catfish, just about anything dead or alive and smelly will do: chicken livers, night crawlers, minnows, crayfish, aquatic insects stink bait, dough balls... Every catfish angler will espouse a favorite bait, including secret home-made recipes - and all will be different!
- For both bullheads and catfish avoid using artificial lures as these fishes forage by smell and taste.

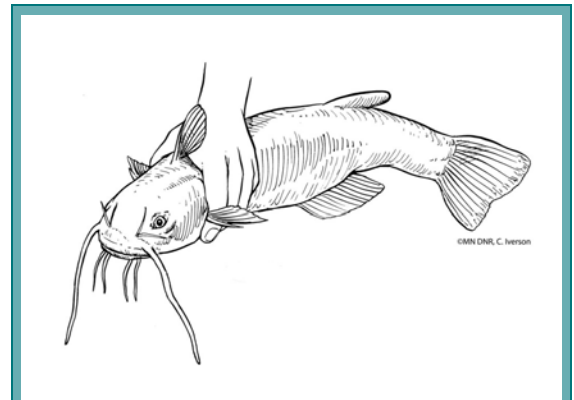


Handling

- To avoid the sharp spines when removing hooks from these fish, securely wrap your hand around the fish – behind the dorsal spine on top, and with fingers behind the gills the pectoral spines and fins on the sides of the body.
- Using a needle nose pliers or forceps makes removing hooks go much easier.

Cleaning

- Catfish and bullheads are excellent table fare, especially if taken out of clean, fresh bodies of water. And contrary to popular belief, cleaning catfish and bullheads is actually easier than cleaning many other fish! There are many good resources on-line with illustrated instructions for cleaning bullheads and catfish. A simple word search, cleaning catfish or cleaning bullheads, will provide you with many sources to choose from.
- As soon as possible after catching, clean bullheads and catfish and place on ice to preserve freshness and flavor.
- If taken from muddy or heavily vegetated waters, soak overnight in a bowl with one tablespoon of salt, two tablespoons of vinegar and enough clear, cold water to cover. Refrigerate overnight. Rinse the fish under cold, running water the next day before cooking.
- Use a sharp knife, a board for a cleaning surface, and a pliers to pull off the slippery skin. For larger catfish, a nail or hook attached to the cleaning board will hold the head in place as you work.
- Work gloves will protect you from the sharp spines.
- Remove head, and fillet or cook whole. Smaller fish are best left whole and larger ones steaked or filleted.



Use caution when handling members of this feisty family of fish! Catfish and bullheads are armed with single thick, sharp spines at each of the leading edges of their pectoral (side) and dorsal (top) fins. When alarmed, the fish firmly extend these spines that easily pierce human flesh.

Finally, Regarding Those Fish Stories

And after the fishing trip you can have the kids write down their fish stories – for remembering, and retelling (with a little embellishment, of course) on another day! Oh - and did I tell you the one about...

Resources:

[Bullheads](#)

[Catfish](#) MN DNR

[Bullhead and Catfish biology and Identification](#)

[Bullhead and Catfish Management in MN](#) MN DNR

[Whiskered Giants of the North](#) [PDF](#) MN DNR, Minnesota Conservation Volunteer, Michael A. Kallok, Sept.-Oct. 2009

[Cool Cats](#) [PDF](#) MN DNR, Minnesota Conservation Volunteer, Greg Brening, May – June, 1993

Piers & Places

Fishing Along the Shore

By Nadine Meyer, Aquatic Education Specialist

May 2012

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Many of my fondest fishing memories from my youth are from docks and shorelines. I remember the reedy leaves of cattails waving in the wind, the hollow sound of my footsteps on the wooden dock, the pure joy of catching a wriggly bluegill or perch or bullhead, and the calm I felt inside while there. Often I was with my grandmother or mom, but many times I was fishing on my own. Having the freedom to go fishing when I wanted made me feel empowered as a child and helped build my

self-esteem.

The beauty of shore fishing with kids is that it is relatively easy, it is relatively inexpensive, and often accessible for youth even when you are not available to take them fishing. Once you share the basic fishing skills, knowledge, and rules with your youth, they are ready to actively participate in fishing on their own.

Shore Fishing Skills Basics

- Demonstrating and practicing casting is an essential piece of knowledge you'll need to share. [Lesson 5:2 - Casting a Closed-face Rod & Reel Combo](#) [PDF](#) (21 pages | 2.6 MB) provides easy to follow instructions on safe casting techniques.
- Show the best methods for removing a hook from a snag.
 - Use the fishing line - not the rod - to gently pull on the snagged hook
 - Try to pull the line from the opposite direction that you snagged the hook, even 90 degrees in the opposite direction can help dislodge the hook.
 - Be sure to pull the line away from your body, not towards your body. If the hook releases from the snag quickly it could fly right at you and hook you.
 - If you cannot dislodge the hook safely, cut the line as close to the hook as possible, and tie on new tackle.
- Demonstrate and practice tying a fishing knot. [Lesson 5:2 - Casting a Closed-face Rod & Reel Combo](#) also provides directions on how to tie an Improved Clinch Knot. As your youth master tying this knot you can expand their repertoire. There are many resources available that demonstrate different fishing knots.
 - [Take Me Fishing.org Knot Tying](#)
 - [Animated Knot Tying](#)
 - [Illustrated and animated knot tying](#)
 - You can also do a key word search "Tying Fishing Knots" to find other sources including videos
- Show how to safely remove a hook from a fish and release it or put it on a stringer if you are able to prepare fish for cooking.
 - Catch & Release tips & techniques by the MN DNR: [Trout](#), [Walleye](#), [Muskellunge](#)
 - [Catch and Release Guidelines](#) provided by the Ohio Department of Natural Resources
- Don't forget to show how to bait a hook using a variety of live and fake baits. [Lesson 6:4 - Piscatorial Palate](#) [PDF](#) (14 pages | 1.1 MB) gives suggestions on baits you can try out

and provides an activity to help keep track of your bait's success/fail ratio.

Shore Fishing Safety

- Give clear boundaries for fishing along a shore of a lake or river. Point out safety hazards such as steep slopes, unstable rocks, slippery mud, and shoreline drop-offs in the water.
- If fishing on a pier make sure your youth are keeping their feet firmly on the platform. Do not allow them to sit or stand on the guard rails. If they cannot reach over the guard rail to hold their rod, show them how to cast and then feed their rod through a lower space in the guard rail so they can sit down to fish.
- Enforce walking and keeping hands to yourself. Pushing, horseplay, and running may lead to accidents and potential hooking. Plus the noise may scare the fish away.
- [Lesson 6:1 - Safety and Fishing at the Water's Edge](#)^{PDF} (37 pages | 3.5 MB) provides a comprehensive outline of how to prepare yourself, your students, and your selected fishing location for a safe fishing trip.

Shoreline Activities

Here are some other activities you can do with your youth while fishing along the shore or on a pier.

[Lesson 1:4 - Water Habitat Site Study](#)^{PDF} (43 pages | 8.3 MB) This lesson provides identification keys for aquatic invertebrates, plants, and other organisms found along the shore.

[Lesson 2:3 - Fish Families](#)^{PDF} (23 pages | 3.4 MB) Using illustrations of fish, youth learn how to classify common game fish into families.

[Lesson 4:1 - Fishing Regulations and Sportsmanship](#)^{PDF} (24 pages | 1.6 MB) Take a little scavenger hunt through the fishing regulations book to familiarize yourself and your youth about the rules for fishing in Minnesota.

Preparing for Your Fishing Trip

[Lesson 6:3 - Planning a Fishing Trip](#)^{PDF} (19 pages | 2.4 MB), gives youth an opportunity to use the [MN DNR LakeFinder](#) and to learn more about the lake they are going to visit using a variety of resources available on the internet.

Our [Featured Fishing Spots](#) include shoreline fishing opportunities in Cook County, this website is updated regularly with new features that include shoreline fishing and fishing piers across Minnesota.

Featured Fishing Spot

Carrot Lake - Cook County

May 2012

Location: 15.9 miles north on Gun Flint Trail (Co. Rd. 12); 4 miles northeast on Greenwood Road (USFS 309); 5 miles north on Shoe Lake Road (SUFS 313); undeveloped trail access on south side of the road, [Map](#) [EXT](#)

Species present: [brook trout](#)

Maximum Depth: 17 feet

Fishing Pier: No, shore fishing access from the trail and nearby campsites

Wheelchair access: No

Bus Stop: No

Park entrance fee: No

Restrooms: No

Parking: Yes, 4 car parking lot at trailhead

Picnic: No

Grills: No

Playground: No

Other activities: Some basic campsites nearby

Agency: [US Forest Service Gun Flint Ranger District](#) [EXT](#)

Comments: For more information you can view the DNR LakeFinder listing for [Carrot Lake](#)

MinnAqua Visit the [MinnAqua Program](#)



Fishing: Get in the Habitat!

For more descriptions of places to fish in greater Minnesota go to [Fishing Spots Across Minnesota](#) or for descriptions of fishing accesses in the Twin Cities Metro Area go to [FIN](#). For a complete listing of fishing accesses in Minnesota go to the MN DNR [Public Water Access](#) webpage.

Featured Fishing Spot

Devil Track Lake - Cook County

May 2012

Location: 3.7 miles north on Gun Flint Trail (Co. Rd. 12); about 8 miles west on Devil Track Road (Co. Rd. 8) to primary public access, [map](#) [PDF](#)

Species present: [smallmouth bass](#), [northern pike](#), [walleye](#)

Maximum Depth: 50 feet

Fishing Pier: No, shore fishing access is available at the [US Forest Service campground](#) [EXT](#) and "Sand Point" both on the north shore.

Wheelchair access: No

Bus Stop: No

Park entrance fee: No

Restrooms: Yes, Portable toilets at campground

Parking: Yes

Picnic: Picnic tables at campground

Grills: No

Playground: No

Other activities: Swimming access at Sand Point

Agency: [US Forest Service Gun Flint Ranger District](#) [EXT](#)

Comments: For more information you can view the DNR LakeFinder listing for [Devil Track Lake](#)

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Featured Fishing Spot

Two Island Lake - Cook County

May 2012

Location: 3.7 miles north on Gun Flint Trail (Co. Rd. 12); 5.7 miles west on Devil Track Road (Co. Rd. 8); 4 miles north on Ball Club Road (Co. Rd. 27); [Map](#) [PDF](#)

Species present: [smallmouth bass](#), [bluegill](#), [northern pike](#), and [walleye](#) **Note:** all smallmouth bass from 12-20" must be immediately released, only one smallmouth over 20" is allowed in possession.

Maximum Depth: 27 feet

Fishing Pier: No, shore fishing is accessible

Wheelchair access: No

Bus Stop: No

Park entrance fee: No

Restrooms: Portable toilets available at public access

Parking: Yes

Picnic: Yes, located within the [US Forest Service campground](#) [EXT](#)

Grills: No

Playground: No

Other activities: Campsites at the campground & canoeing

Agency: [US Forest Service Gun Flint Ranger District](#) [EXT](#)

Comments: This lake has a beach gravel boat launch and a paved boat launch. For more information you can view the DNR LakeFinder listing for [Two Island Lake](#)

MinnAqua Visit the [MinnAqua Program](#)



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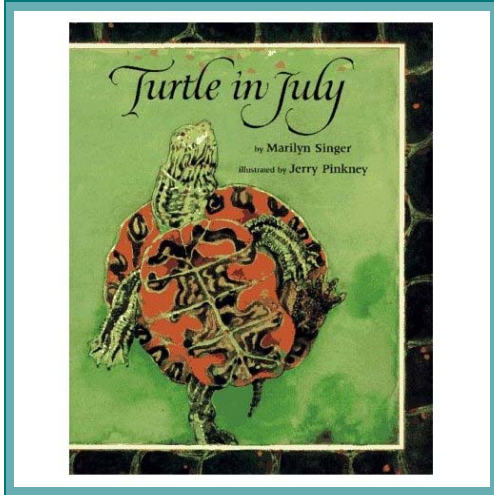
Book Reviews

Catfish Stories

by Nadine Meyer, Aquatic Education Specialist

May 2012

[Download this article](#) [PDF](#)



Turtle in July, 1989

by Marilyn Singer, illustrated by Jerry Pinkney; Macmillan Publishing Company

Grades: K-5 ISBN: 0590443496

The bullhead kicks off each season in this collection of poetry and watercolor illustrations. The author accurately describes the bullhead's life cycle and seasonal behaviors in the four short poems dedicated to this lakebottom dweller. Each of the seasons has three or four poems that highlight wild and domestic animals that are found around lakes. The poems are both auditory and visually enticing. A delightful set of poems that will entertain non-readers and readers alike.

No longer in print, available used.

Little Bream, 1997

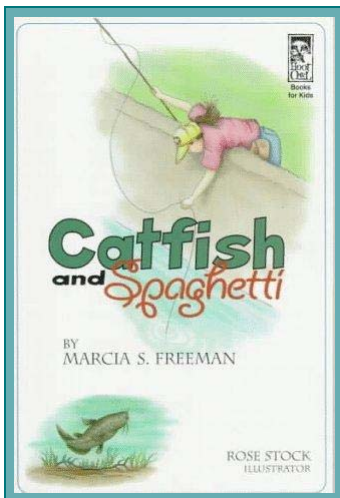
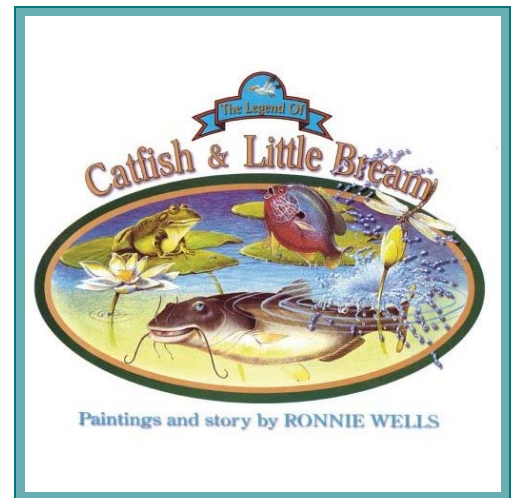
by Ronnie Wells, Acadian House Publishing

Grades: 3-6 ISBN: 0925417378

This fictional story is based on two puppets, which were named Catfish and Little Bream, created by the author's daughter when she was a young child. From the back cover: "(This story) is about a big fish who becomes bored with life in a little pond in the South. He sets out on a great adventure, and along the way comes to realize what is truly important in life." While this book isn't a science tradebook, it provides a good platform for inquiry into the habits and habitats of catfish and sunfish.

Available in hardcover or audio cassette.

The Legend of Catfish &



Catfish and Spaghetti, 1998

By Marcia S. Freeman, illustrated by Rose Stock; Maupin House Publishing Inc.

Grades: 3-7: 09298895215

With the help of her supportive parents, a young girl uses her knowledge of science, her ingenuity, and her problem-solving skills to try and catch a lunker catfish to help feed her family. A heart-warming story of how children can be creative, patient, and self-sufficient even when their families are struggling. An excellent book for discussing how simple it can be to get the tools you need to go fishing including cleaning and cooking your catch. **Please note** - there is an inaccurate description of barbels in the last chapter of the book. The part of a catfish or bullhead that "stings" is the spine that is found on each of the dorsal and pectoral fins.

Available in paperback.

Girls Talking Fishing . . . in School!

by Jeff Ledermann, Guest Writer, Father

May 2012

[Download this article](#) [PDF](#)

Angling for a concept to introduce girls to fishing? Here's a true "fish tale" by Jeff Ledermann, a father of two young ladies and their introduction to angling by casting his girls in the right direction. Our author took the extra steps to coach his daughters and some of their friends to the idea of fishing and doing in the face of stereo typing.

Here's Jeff's "Tale":

From the time they could walk, I've introduced my two girls (now in high school) to the outdoors, including helping them catch their first fish at the age of two and guiding them in the harvest of their first deer in the last couple of years. My focus expanded, however, when my oldest, then a fifth grader, came home from school one day and announced that "girls don't fish."

I decided then and there that at least the girls in our community were going to know that not only was it okay for girls to fish, but it was a lot of fun. With her help recruiting friends, we founded **Fishing Daughters Club** for girls and their parents and guardians.

Since 2006, we've averaged seven or eight fishing events a year that typically include over a dozen girls and their parents or guardians spending time on the water fishing and having fun. With the support of our community education and school staff, at least once a year an invitation goes out to families throughout our school district via e-mail and school announcements. There are still girls at our schools that might choose to not fish, but now at least they all know that boys aren't the only ones that do!

I really knew we had changed attitudes, however, when a couple years after the club started, several seventh grade girls hounded my daughter at her locker about when I was going to get the schedule out for the summer events so they could get their parents to sign them up – middle school girls talking fishing in the school hallways??????

My biggest tip, however, is this one: when taking kids on outdoor outings, encourage them to bring friends. I'd like to say I discovered how important this was through pure genius, but it was really dumb luck.

I'll never forget our first outing for Fishing Daughters Club. I was excited because we had managed to get several parents and girls to join us at an area lake and the weather was great and everything else was going as planned. On the way there (and on the way home), however, my two daughters fought the whole time in the car! Here I had put together this great "family time" and everyone was on edge.

At the next outing, one of my girls, Heidi, couldn't join us, so I let Katie bring a friend. Katie and her friend had a great time and the ride home was peaceful. Third time out and both daughters are going. Out of fairness, I let Heidi bring a friend, but not Katie (I had a really small boat). Lo and behold, my girls were angels to each other, as neither wanted to make a bad impression on the friend.

Ever since, I've encouraged one or both of them to bring a friend. It has worked out amazingly! Not only do the sisters get along better and it is a much more enjoyable experience for everyone, but we've introduced several girls to fishing that never would've had the chance!

I would be happy to share any tips and suggestions for others interested in starting their own fishing clubs for kids. People can [email](#) me, Jeff Ledermann, or call 651-773-5537.

The girls might not appreciate dad deeds did for the short-term, but I will bet you a rod and reel that their tackle box full of memories will never be forgotten.

Here is a MNDNR link for more information at:

[Fish and Wildlife Outreach Section](#)



The girls excited about their big catch of the day.

Updates & Opportunities

May 2012

[Download this article](#) 

For upcoming events go to the [DNR Calendar](#).

[Conservation Education Strategies Webinars](#)

[Association Fish and Wildlife Agencies](#) (AFWA) is offering webinars to introduce resources they created as part of their Conservation Education Scope and Sequence. You must register for each webinar (limited to 100 for each one) on the AFWA website.

Future Webinars:

- June 27 - America's Wildlife, Yesterday, Today and Tomorrow
 - July 25 - Outdoor Investigations
 - August 22 - Outdoor Skills Education in Schools
 - September 26 - Evaluating CE Programs (tentative)
 - October 24 - Landscape Investigations and Project-Based Learning
 - November 28 - Connecting Kids with Nature
-

[2012 Minnesota Association for Environmental Education Conference](#)

Rec-reate, Re-create is a conference for all who teach or support environmental education--in classrooms or communities. The 2-day event is at Itasca State Park, June 21-22, 2012.

[Registration](#) is now open!

[Comment on the Next Generation Science Standards](#)

Minnesota Department of Education seeks feedback on the Next Generation Science Standards (NGSS) public draft. These standards are a cooperative effort of states to develop common standards that could be used as state science standards.

Even though Minnesota is not scheduled to revise science standards until 2017-18, the state has been involved as a lead state in the development of the NGSS. This involvement includes reviewing drafts of the standards and considering eventual adoption of the standards. These standards and the foundations on which they are based are likely to be the impetus for significant changes in science education. Teachers, science educators, scientists, engineers and others interested in science education are encouraged to review the standards and provide feedback.

The standards, feedback survey, and supporting materials will be available at www.nextgenscience.org on **May 11**.

There will be focus group meetings across Minnesota between **May 14-June 1** to learn about the standards and to provide joint review. Use the following link to register for the meeting of your choice: <https://docs.google.com/document/pub?id=1IxFTw8YI7HABeU1VI1sdyYjn5tMG7YibEqrWIGrBm8>.

[Webinar Series: Learn About the National Project for Excellence in EE](#)

June 26, 2012, 4:00 p.m. Eastern time / 3:00 p.m. Central time / 2:00 p.m. Mountain time / 1:00 p.m. Pacific time

Early Childhood EE Programs: Guidelines for Excellence

This webinar focuses on our newest set of guidelines - Early Childhood Environmental Education Programs: Guidelines for Excellence. We will discuss how the guidelines are being used in early childhood environmental education program design and implementation and introduce you to a companion document, Early Childhood Environmental Education Rating Scale.

REGISTER: www.surveymonkey.com/s/ecee

Questions? Email borasimmons@gmail.com

Did you miss one of our earlier webinars? Access a recording [here](#).

[Participate in World Water Monitoring Day](#)

World Water Monitoring Day™ is an international education and outreach program that builds public awareness and involvement in protecting water resources around the world by engaging citizens to conduct basic monitoring of their local water bodies. In 2010, over 200,000 people in 85 countries monitored their local waterways. Celebrate with us on September 18, or host your World Water Monitoring Day anytime from March 22 until December 31! Find out more [here](#).