



MinnAqua Moments with Fishing: Get in the Habitat!

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Minnesota DNR
MinnAqua Program

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Welcome!

By Jenifer Matthees

Welcome to MinnAqua's first e-newsletter! Our vision for this newsletter is to help support you in your aquatic and fishing education efforts. We want to keep you updated on changes and new things happening with MinnAqua; and we also want to supply supportive information for MinnAqua's ***Fishing: Get in the Habitat!*** lessons as well as a few new ideas for teaching youth. As this e-newsletter evolves and grows we'll be adding some new columns but for now, check out these features:

Featured Lesson –A review of one of the 39 lessons in ***Fishing: Get in the Habitat!*** We will touch on how the lesson works, offer suggestions on how to adapt the activity for different needs, include tips and tricks to aid in delivery, and provide new ideas that will help you when doing the lesson or to advance learning.

Book Reviews –Check out this area for a synopsis of books related to this newsletter's lesson.

Community Connections –Here we give ideas on how we can help youth become more involved in their communities, or showcase groups who have given back to their communities in an environmentally friendly way. This time we'll discuss the importance of Service-learning, learning while giving back!

Piers & Places –Here we'll highlight local fishing sites to take your students or we'll give tips on how to select a safe site (good shore fishing access) in your area, or share successful fishing programs that have happened with MinnAqua.

Fishing Equipment & Tips –Learn the basics about what to use and how to use it. Even avid anglers may pick up a tip or two! As you grow your experience with taking kids fishing we'd also like to invite you to share your tips with others.

We don't want this e-newsletter to be just a one-way street, because we know you have great ideas to contribute and share with others, too and we would love to hear from you! So send us your successes, challenges, ideas, and suggestions so we can all learn and support each other. Welcome and happy fishing!

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 me know by contacting me at 651-259-5217 or jenifer.matthees@dnr.state.mn.us.



Workshops are Underway

by Michelle Kelly

The MinnAqua Program published the new ***Fishing: Get in the Habitat!*** Leaders Guide in June of 2007. Since that time, we've been facilitating training workshops to introduce this exciting new resource to educators across the state. As you've seen, this MinnAqua

Leaders Guide is big, and it's amazingly comprehensive! The training workshop helps educators realize firsthand that in spite of its large size and comprehensive scope, ***Fishing: Get in the Habitat!*** is not daunting, but rather, provides what teachers need and find helpful: such as extensive background information and planning tools, adaptability and assessment options, interdisciplinary academic standards correlations and lesson materials, copy pages, and so much more.

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 beautifully formatted and illustrated, it is also a resource that is easy to use. Further, the workshops help educators learn from experience how these lessons will help them to better and more easily address their existing objectives; engage their students in learning that is challenging, relevant, and fun; connect their students meaningfully to their local Minnesota aquatic resources; introduce the students to the life-long, healthy, outdoor activity of fishing; and, help lead to understanding about how the lessons will work in their school or educational setting.

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!"

The workshops can also be tailored to meet the specific needs of a particular group of educators. For example, we have conducted workshops for groups as diverse as nature center staff, college students majoring in Education, school forest teachers, MN high school Agriculture teachers who teach Natural Resources classes, Elementary Science teachers' professional development days, MnSTA conference mini-workshops, as well as conducting a workshop at the Department of Education for teachers interested in engaging students in Service-learning. MinnAqua will also provide workshops tailored to address advanced fishing skills (such as fly-fishing, after school fishing clubs, etc.), or, with a focus on specialized topics like invasive aquatic species, fisheries management, fishing field days, addressing scouting badge requirements, and so on.

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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School Spotlight

By Kathy Beaulieu and Amy Revering

In December I traveled to Miltona Elementary to give a training workshop. Since some of the Teachers hadn't done much fishing on the ice before, we took some time to head out on the lake and try our hand. Although some caught fish right away, the teachers stood in solidarity until each one had caught at least one fish! I interviewed Amy Revering, to see what they had been up to since that cold day.



*How did you hear about the MinnAqua Program? What made you want to attend a training workshop for the MinnAqua **Fishing: Get in the Habitat!** Leaders Guide?*

I attended the MAEE conference in Alexandria last fall and I went to this break out session with Roland Sigurdson. I was extremely excited about it and brought the ideas back to my staff. We decided this would lend itself perfectly to our magnet and could possibly turn into a Peer Teaching day out at Miltona.

You scheduled a training workshop for December of 2007 at your school. Tell us a little about your school and the teachers that attended the workshop.

We are a Science Magnet School with a focus on the Environment. Our staff at Miltona still teaches the objectives that all district 206 schools teach, however, we use Environment-Based Education. We integrate environmental studies into our core subject areas for hands-on learning opportunities. Students become aware of their impact on the environment and are challenged to rethink decisions about their world. The teachers that took the training were K-5 teachers along with our school naturalist. We are all dedicated to our magnet and love to learn about the environment ourselves so we can bring this knowledge back to school and share it with our students!

At our lunch break during the workshop, you showed a video of your school on the local news station. I remember something about teachers sledding in their shorts?

This was actually for a school fundraiser. Our 4-6 grade students built an ice-fishing house. If they sold all 1,500 raffle tickets, the incentive was that the teachers would sled down hill in their summer clothing!

What did you like about the training workshop? How did you use the information?

I loved having the opportunity to try the activities myself. We teach through hands-on learning so the training workshop lent itself to our teaching strategies!

- We will be having a Peer teaching day for our District. Our 4/5 multi-age class will become experts in the MinnAqua lessons and will then teach to other 4 or 5 grade classes across the district.
- We hosted a "Fishing Fun for Everyone" day at our school. Local communities were invited to bring their children to our school. They learned how to tie fishing knots, made their own jiggle sticks, learned about ice fishing safety, and participated in fish identification activities. They wrapped up the day by getting bussed out to Lake Miltona for ice fishing! We had over 250 participants.
- We also integrate many of the lessons into our science curriculum. We are trying to use the lessons to fill some of the gaps in our District curriculum to align it with the State Standards.

*How will your school be using the MinnAqua **Fishing: Get in the Habitat!** Leaders Guide in the future?*

Because of the overwhelming response to our "Fishing Fun for Everyone" day, we plan to do this year after year, but with



changes every year to keep people coming. Although we have not done the Peer Teaching day yet, we are hoping this will be a success as well, and will be able to offer this to 4th or 5th grade classes yearly.

Now that you have had an experience using the guide, is there any additional training that the MinnAqua Program could provide?

Our staff loved the training and we love the Leaders Guide! I guess our only additional training that we could ask for at this time is for you to teach us any additional lessons that you create. We are also trying to find ways to adapt the lessons for younger children.

Featured Lesson

Lesson 1:1 - Design a Habitat

by Jenifer Matthees



Our kick off lesson, ***Design a Habitat*** is the first lesson in chapter one. And as the title of the guide implies, we value habitat and want others to know its value, too.

Summary – The instructor leads students on an actual or a virtual field trip to a pond to explore and see how habitat can meet basic needs of a bluegill. Students then construct a diorama of the fish's habitat, illustrating food, water, cover, and space.

What are the parts of your local pond or aquatic habitat? How are those parts linked and important to each other? ***Design a Habitat*** is a great kick-off lesson to bring about awareness, allowing time for observation and investigation, and developing a foundation for future lessons and learning.

Design a Habitat provides a visual means for students to learn to identify the key components of habitat. Whether you use the visualization or physically visit the water, your students will make connections and start to discover their surroundings. They will start to understand relationships between living and non-living parts of the natural environment and how human constructed systems also play a role in the habitat.

In this lesson, students demonstrate what they learn through observation and listening by constructing a diorama of a habitat that provides food, shelter, water and space for a bluegill.

Tips & Tricks

For younger kids, the visualization activity (virtual field trip to the pond) may be too difficult. See the Book Review corner in this newsletter for suggestions on picture books to read to the students as the introduction for this lesson. Additional books can be found in the Student Reading List, which can be found in the ***Fishing: Get in the Habitat!*** Leader's Guide Appendix: Planning Tools.

The water in this craft is represented by blue plastic wrap. Some stores still carry the colored wrap – Super One and Super Value had it on their shelves recently. If no blue plastic wrap is available, have the kids paint their diorama background blue or use construction paper to make the dioramas.

Corrections & Updates

The diorama template in the lesson is being updated to result in folds with even edges instead of two sides being higher than the others.

***Check our website periodically
for this and other updates.
www.mndnr.gov/minnaqua***

Minnaqua Lesson Connections

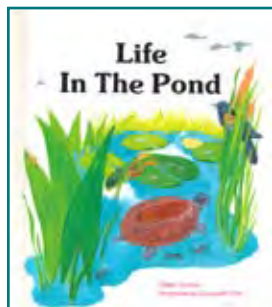
If you are lucky enough to be able to visit a pond, try *Lesson 1:4 - Water Habitat Site Study*. Not only is this lesson a great introduction to habitat, it takes exploring the shallow water habitat to a slightly deeper level by collecting and identifying specimens with matching charts and keys before returning them to the water.



Book Reviews

by Nadine Meyer

Life in the Pond
By Eileen Curran
Illustrated by Elizabeth Ellis
Published by Troll Associates
ISBN 0-8167-0452-X
Ages 3-8



This picture book is an excellent introduction to a pond for those too young to do a visualization activity and for those that do not have a pond nearby to observe. The text is simple with some onomatopoeia and many action words. The watercolor illustrations are accurate and dynamic with many little elements to search for on each page. Both the underwater and surrounding upland aquatic habitats are explored and the book spans from early morning to late night.

This out-of-print book can be found at libraries or online as used in either paperback or library bound.

Willa in Wetlands (a play)

Peyton Lewis and Rory Chalcraft

PreK-2 (view performance of play); 3-5 (view performance and read)

This is a very creative, funny, and engaging play with catchy, upbeat songs. The cast includes Willa the student, Sherman and Shirley Shrimp, Johnny Rockfish, Wild Rice, Blue Heron, and many other wetland dwellers. The play begins with Willa setting off to find a “wetland treasure” mentioned by her teacher. She soon discovers that “looking for a treasure in a swamp or marsh is a hard job. I see nothing that looks the least bit priceless.” The treasures she finds aren’t what she expects, and her search leads her to a bald eagle, a muskrat lodge, some fiddling fiddler crabs, and much more. Willa concludes, “I came here looking for gold and silver but I think I’ve learned what the real treasure is. Everyone I met was a jewel.”

Scripts for Willa in Wetlands are available at no charge from the Wetlands Information Hotline, which can be reached toll-free at 1-800-528-7828. A teacher’s guide is also available.

**Song of the Water Boatman &
Other Pond Poems**
By Joyce Sidman
Illustrated by Beckie Prange
Published by Houghton Mifflin
Company, Boston
ISBN 0-618-13547-2
Ages 8-15



This book is a compilation of poems about aquatic habitats. From duckweed to wood ducks these poems describe the life of a pond and the interconnections between the pond inhabitants. Each poem is accurately and beautifully illustrated with hand-colored woodcuts. A brief narrative describing the poem’s concept, plant, or animal accompanies each poem.

This is a 2005 Caldecott Honor book and both the author and illustrator are from Minnesota.

Community Connections

Service-learning and Stewardship

by Michelle Kelly

“Service-learning is a form of experiential learning whereby students apply content knowledge, critical thinking and good judgment to address genuine community needs.”
-Minnesota Department of Education



One of our important intentions for the creation of ***Fishing: Get in the Habitat!*** was that it would be a tool for providing teachers and students with the background and the essential information they need for initiating self-sustaining stewardship

projects and programs in their communities. An effective way of doing this is by leading teachers and students to engage in Service-learning projects on completion of a set or a unit of lessons. To this end, we’ve included in the back of the guide, a Service-learning Appendix. If you haven’t had a chance to take a look at it, yet, we invite you to check it out!

The Service-learning appendix section includes useful information, such as a description of what Service-learning is, and what it is not, a list of resources for guiding and supporting Service-learning efforts, and various Service-learning project ideas specifically related to the content of the lessons from Chapters 3-6. These Service-learning project ideas are intended to provide students with meaningful, real-world opportunities for taking action, getting involved, and applying the skills and knowledge acquired from ***Fishing: Get in the Habitat!*** lessons.

What are the primary benefits of Service-learning? Through Service-learning, students can develop decision-making skills and citizenship skills as they plan, design, and carry out stewardship projects and programs in their communities. They will come to understand through integrative hands-on learning how to apply their knowledge about aquatic habitats and Minnesota fish, about water stewardship, about fisheries management, and, lastly, about fishing so as to then be able to identify and address real problems and/or issues in their local environments and communities.

Visit our website at www.mndnr.gov/minnaqua

The lessons from ***Fishing: Get in the Habitat!*** encourage and support the use of Minnesota’s local aquatic places as the “classroom” for learning, and serve as a *connector* of science and environmental literacy for students.

An important benefit of a Service-learning project is that it can be done as a capstone to any unit or strand of lessons developed from the curriculum guide, which will consequently empower students, and develop their stewardship and citizenship skills. An empowered and environmentally literate citizenry will help to support the

Minnesota DNR mission of “...*working with the citizens of Minnesota to not only conserve and manage...but also to use our state’s natural resources heritage in a sustainable way.*”

Service-learning and stewardship education significantly empower students to create positive change as well as to take personal or individual responsibility for the environment and quality of life in their communities.

Environmental stewardship involves informed, responsible behaviors and actions undertaken by people on behalf of the environment and future generations.

Perhaps the greatest benefit resulting from Service-learning happens when students reflect on their progress and celebrate a valiant effort or a job well done. They realize that they’re not “just” kids, but responsible, informed participants in their schools, communities, and local environments. They also realize from experience that learning and doing things that have an important positive purpose in their community can be very fulfilling and fun.

Put your students’ learning into action! Write yourself a reminder note to take a look at the ***Fishing: Get in the Habitat!*** Service-learning Appendix to learn more about how you can create a unit using MinnAqua lessons to engage your students in Service-learning and set them on a path towards life-long environmental stewardship!

Or clip and post the following note where you’re sure to see it!

*Note to self:
Check out the Service-
learning Appendix in
the MinnAqua Fishing
Get in the Habitat!
Leaders Guide*

Piers & Places

Fishing Sites for Kids

By Roland Sigurdson

To find a fishing site near you, check the Minnesota DNR website at www.mndnr.gov for information on fishing piers and public access points (boat launches), and/or with a local bait store, fishing club, or sheriff or water safety patrol. Your friends and neighbors may have first hand knowledge of fishing sites that have worked for taking kids fishing in the past.

Below are some things to consider when choosing a fishing site for your children or group.

Tips for Choosing a Fishing Spot

- Fishing from low banks that gently slope to the water access/fishing site is the best way to prevent accidents. High, steep banks, especially when wet/muddy can cause slips and falls.
- Overhead branches or other obstacles that could catch hooks as anglers cast are a problem. Look for an open area for safe casting. Public fishing piers float out over the water making them excellent choices.
- When looking for accessibility to water, find out if there are trails, fishing platforms, or piers available. If you have children with special needs, check out the DNR Open The Outdoors website to find ADA compliant sites. www.mndnr.gov/open_outdoors/
- Fast-moving water can be dangerous. If fishing on a river or fast stream, position an adult downstream from the group to mark a boundary and aid in rescue if someone should fall in upstream.
- Water near dams and reservoir releases can be deep, with strong and unpredictable currents. Avoid choosing these areas as fishing spots. Instead, choose a safe, productive area along the shoreline of a pond, lake, or stream.
- Beach or swimming areas are not good spots for fishing. Most parks do not allow fishing in the swimming area. Fish at a distance from beaches for public safety and to keep lost hooks out of swimming areas. Besides, good fish habitat, including aquatic plants, submerged logs, rocks, brush piles, stumps, docks, or piers are usually removed to create swimming areas.



Other Important Considerations

- The availability of adequate shade near your fishing locations is important. The sun's ultraviolet (UV) rays can cause burns on both sunny and overcast days. The sun's reflection on water can also make it difficult to watch a bobber or to look under the surface of the water. Provide frequent shade breaks to let kids cool off and get out of the sun to avoid sunburn and dehydration (losing too much water). Bring along and use waterproof sunscreen with an SPF (sun protection factor) of at least

15. Students should wear sunglasses, polarized if possible, and a hat with a brim to shield eyes from the sun. Sunglasses and hats will also help protect eyes and ears from any misguided hook scratches or punctures, especially when fishing on windy days

- Is there shelter in case of inclement weather (sun, cold, heat, wind, rain, hail, lightning, tornadoes)? School groups should consider keeping buses onsite during trip. If

weather becomes threatening, you can come back to fish on another day.

- Make sure that restrooms are available, open, and stocked. It is also good to check if running water available for washing hands. Bring extra toilet paper, soap or antiseptic wipes.
- Determine if running water is available for drinking. Have water available and provide frequent water breaks to prevent dehydration. Nothing ruins a fishing adventure like a dehydration headache.
- Avoid brushy, wooded places or bring insect repellent to deter mosquitos, biting flies, and ticks.
- Survey the site for plants such as poison ivy, stinging nettles, and wild parsnip. Be certain you can avoid these plants if present in the fishing area.
- Is cell phone coverage available at the site? If your cell phone won't work at the site, make an alternate plan for calling 911 or emergency contacts for students should the need arise.

Many of the tips in this article are from the MinnAqua ***Fishing: Get In The Habitat!*** Leaders Guide Lesson 6:1 - Safety and Fishing at the Water's Edge.

Meet the MinnAqua Staff



MinnAqua is the statewide fishing and aquatic resource education program of the MN Department of Natural Resources and we'd like you to meet the people that coordinate programming in your area.

Jenifer Matthees – Statewide Program Coordinator, Central DNR Office, St. Paul

Jenifer is a Minnesota native and grew up in Winona, MN where she fished Lake Winona with her dad. She holds a B.S. from North Dakota State University and an MA from Saint Mary's University. Jenifer has served as the MinnAqua Coordinator since March of 2000. In previous positions Jenifer worked as a technician for the U.S. Forest Service in Grand Marais, a technician for the DNR in Grand Rapids, MN, an AmeriCorp Member with Trees Forever in Cedar Rapids, IA and Conservation District Administrator in Cass County, MI. She is an aunt to two wonderful, lively nieces and two nephews that already love to fish.



Nadine Meyer - Northern Education Specialist, Great Lakes Aquarium, Duluth

Nadine completed a B.S. in Environmental Science with an emphasis in soils from the University of Minnesota, St. Paul. Her first taste of interpretation and EE was at The Turtle Mountain Environmental Learning Center at Lake Metigoshe State Park in Bottineau, ND. Totally jazzed from her internship, Nadine pursued a career in Interpretation and EE starting as a seasonal EE Specialist at the St. Croix Environmental Learning Center in Hudson, WI. She found her first full-time job in Indiana as an Interpretive Naturalist and Early Childhood Specialist for St. Joseph County Parks, South Bend, IN. After three years in Indiana, Nadine moved to Cleveland, OH to work as an Early Childhood Education Specialist for the Nature Center at Shaker Lakes. During her time in OH, she enrolled full time at Kent State University and received an M.Ed. in Curriculum and Instruction, Educational Leadership. While in graduate school Nadine moonlighted at the Lake Erie Nature and Science Center as an Early Childhood Education Specialist and became the School Programs Coordinator after she graduated. In 2005 Nadine became the MinnAqua Education Specialist for Northern MN.



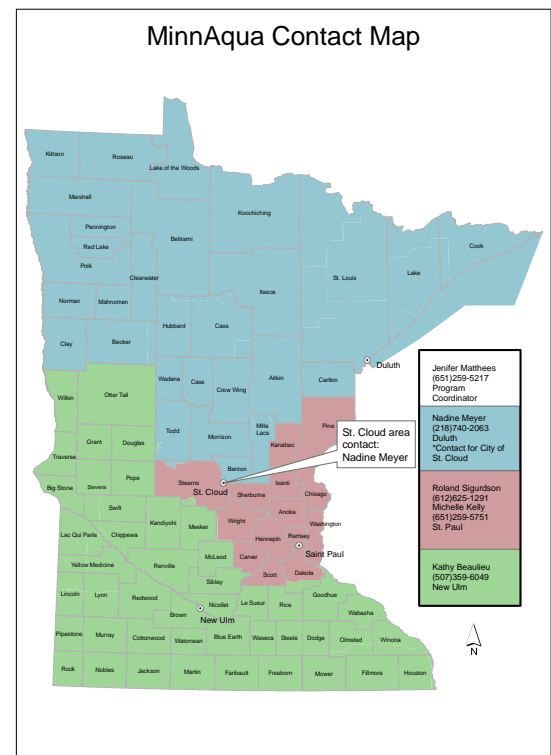
Roland Sigurdson – Metro Education Specialist, University of Minnesota Water Resource Center, St. Paul



Roland spent his formative years working along side his family on their Anoka Sandplain farm with two brothers and a sister. He graduated from Cambridge-Isanti High School and headed for the University of Minnesota earning a bachelors degree in biological sciences with an emphasis in ecology. He frolicked for six months in the wetlands of southern Manitoba as a research assistant at the Delta Waterfowl and Wetland Research station, spent another six months examining the impacts of pesticides on prairie wetlands for the Minnesota Coop Fish and Wildlife Research Unit and finally returned to the collegiate setting and completed a Masters degree in Environmental Biology at the University of Minnesota-Duluth. His thesis focused on an examination of the impact of barge traffic on the survival of larval fish of Upper Mississippi River.

Roland joined the Minnesota Department of Natural Resources MinnAqua Program in December 1997. He is stationed in the metro area and says he has "...worked with more youth groups than I thought could possibly exist. Teaching Minnesotans, young and old, fishing skills and how to be better stewards of our aquatic resources is amazingly rewarding!"

Meet the MinnAqua Staff, continued on page 9



Updated 2/12/2008
Created by James Schulz, Rochester Fisheries GIS Specialist



Michelle Kelly - Metro Education Specialist, Region 3 DNR Headquarters, St. Paul

Michelle received a B.A. in Biology and licensure in Secondary Education: Life Science from the College of St. Catherine. While there, Michelle

began spending her summers and some winters working in Yellowstone National Park working for the lodges and as a VIP (Volunteer in the Park) for the National Park Service. Michelle has been an Outdoor EE and Adventure Education Intern at Boston University's Sargent Camp in Peterborough, New Hampshire; Lead Instructor at the YMCA North Woods Resource Center at Widjiwagan in Ely, MN; Day Camp Director of the St. Paul Skyway YMCA; Program Coordinator at the St. Paul Jewish Community Center Day Camp in Lebanon Hills Regional Park in Dakota County; and taught 9th and 10th grade Biology and Chemistry at Roosevelt High School in Minneapolis. Prior to working with the MN DNR she spent 12 years traveling the world as a Flight Attendant with Northwest Airlines. Michelle joined the MinnAqua Staff in 2000.

Kathy Beaulieu – Southern Education Specialist, Region 4 DNR Headquarters, New Ulm

Kathy graduated from the University of MN - TC with a B.S. in Fisheries and Wildlife Management. She has worked as Education Specialist for the DNR MinnAqua Program since January of 1998. Some of her previous positions include (she can't remember them all) Outdoor Center Director for Eden Prairie Parks and Recreation, Interpretive Naturalist at Westwood Hills Nature Center in St. Louis Park, Recreation Specialist for Three Rivers Park District in Plymouth, Fisheries Technician for the US Fish & Wildlife Service in King Salmon, AK, and Wildlife Technician for the US Forest Service in Cordova, AK. In her free time she enjoys skiing, canoeing, fly fishing, dancing the Lindy Hop, singing with the Sweet Adeline's, and taking long walks with her dog, Penny.



Fishing Equipment & Tips

Picking a Beginner's Fishing Rod

by Roland Sigurdson



So what is the best fishing pole for beginners? We recommend a closed-faced, push button rod and reel combo.

The closed-face reel sits on top of the rod and has a push-button for releasing the line. Closed-face reels have a cover and are sometimes called push-button or spin-cast reels. This type of reel is simplest to learn to use—the line is less likely to tangle than with an open-face reel. Closed-face rod and reel combos are very affordable. Ideal for beginners, they're often used to catch panfish, but they can also be used to fish for a variety of species in numerous fishing situations.

Take the time to do some practice casting with casting plugs before your fishing trip and you'll find that your youngsters will be more successful, safer anglers.



Free Fishing Weekends Are Coming Up

Take A Mom Fishing Weekend
Moms fishing with a child don't need a license
May 9-11, 2008

Take A Kid Fishing Weekend
Adults fishing with a child don't need a license
June 6-8, 2008