

NEW YORK STATE

# CONSERVATIONIST



**GO  
FISHING**



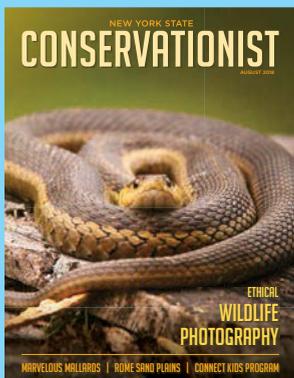


Kristin Sternberg

NEW YORK STATE

# CONSERVATIONIST *for Kids!*

**IN THIS ISSUE:** Learn about some of New York's **SPORTFISH**. We'll share some fun things to do outdoors, exploring the places where fish live and how they survive in their watery world.



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You'll get six issues of the award-winning *Conservationist* magazine each year, plus *Conservationist for Kids* in the October, February and April issues. Call 1-800-678-6399 for information about how to subscribe. Or, write to us at:

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Cover image courtesy Michael Pachan

# FISH ARE FASCINATING

It's fun to watch them move through the water, whether alone, or in "schools" (groups of fish). Fish habitat—where they live—provides the food, water, shelter, and space they need to survive.



Some freshwater fish live in shallow, weedy ponds and lakes. There are plenty of places to hide among the plants, whether fish are searching for prey or avoiding predators. Since they're shallow, these waters can warm to over 80° F at times! Fish that need cooler waters may be found in deeper areas. Other fish, like trout, prefer cold water lakes, ponds, and streams with temperatures under 72° F.

Jim Clayton

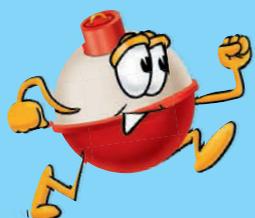


Rome Fish Hatchery

## Road trip!

Did you know that some of the fish you can catch in New York got their start at a fish hatchery? DEC has 12 fish hatcheries around the state, most of which you can visit. You can see fish at different life stages and hatchery staff feeding them and cleaning their tanks. Most of DEC's hatcheries even have interactive exhibits or visitor centers, so ask your parents to take you today!

Find a DEC hatchery near you, visit: [www.dec.ny.gov/outdoor/7742.html](http://www.dec.ny.gov/outdoor/7742.html)



## Get Outdoors

Fishing is a fun sport that can be enjoyed by anyone, no matter their age or ability. You can enjoy it by yourself, with your family, or with a group of friends. You may even end up with your own fish story to tell!

Hi, I'm Bob the bobber! Follow me as I share my enjoyment of fish and fishing.

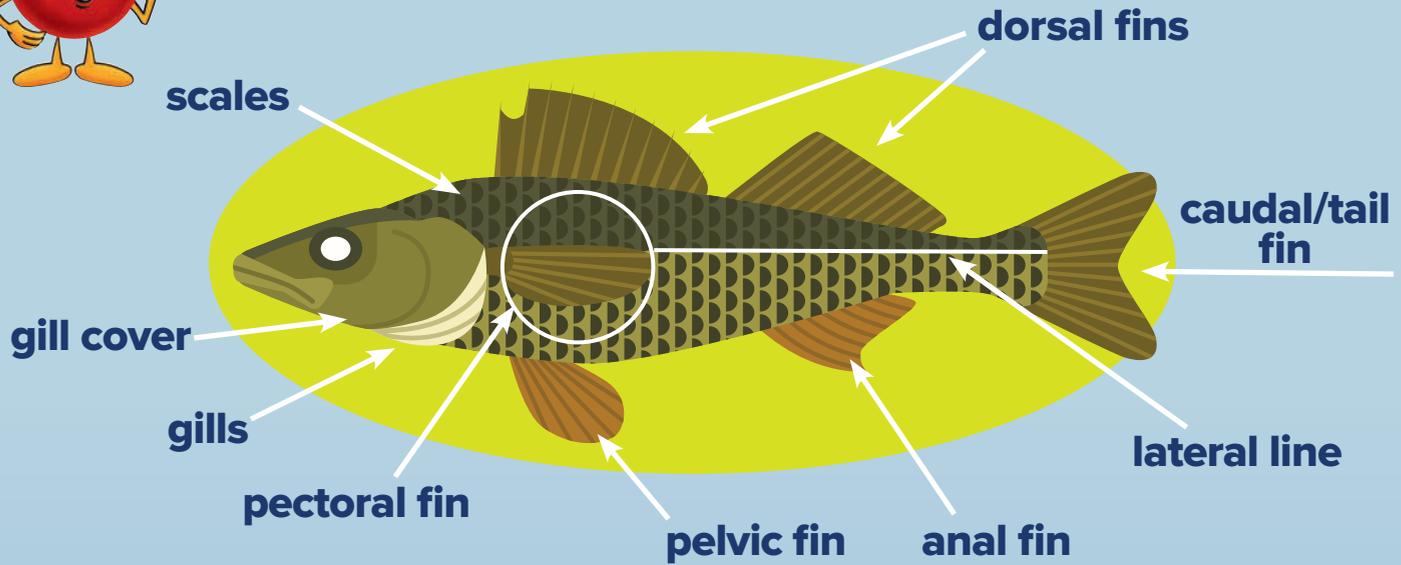


**BE RESPECTFUL:** When you're outdoors—you're in the home of wildlife, you're in their habitat.

- Don't litter. Eventually, what you leave on the land will be washed into the water. Clean up after yourself and others who have left a mess.
- Observe, but don't disturb wildlife. Don't disturb other people who are there to enjoy the wildlife.
- When you go fishing, know and follow regulations that apply to you, and only keep the size and number of fish you are allowed to keep. If you're not going to eat them, release the fish right away.



# FISH FEATURES



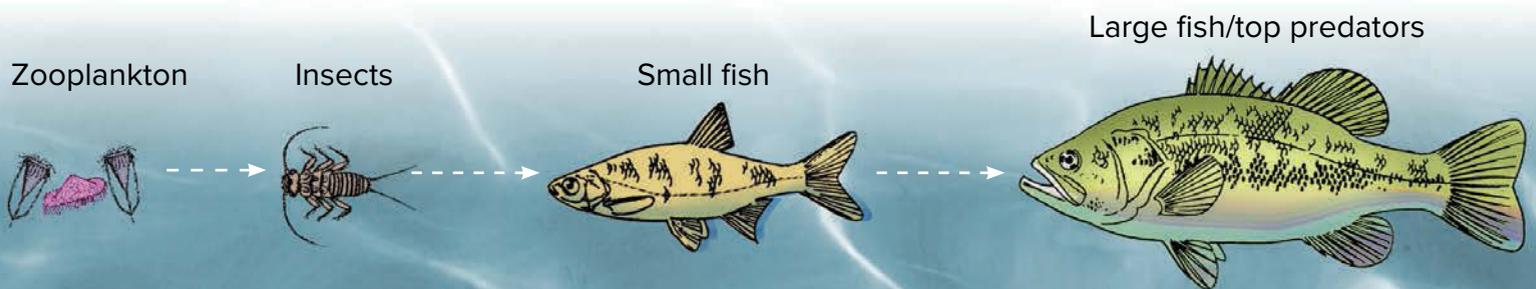
**Fins** - Fins help fish move through the water. The caudal or tail fin pushes the fish forward. The other fins are used for steering and balance, to allow the fish to stay in one place, and to dive or rise to the surface.

**Scales** - Scales cover the fish's body and help to protect from injury and disease.

**Gills and Gill Covers**  
Fish get oxygen directly from the water. Water enters the mouth and then passes over the gills, where the oxygen is removed. Gill covers protect the gills from injury. Without gills, the fish could not live.

**Lateral Line** - The lateral line runs along the length of a fish's body. It is made up of specialized cells and can sense vibrations caused by nearby fish and other aquatic animals. The lateral line helps fish to locate food (prey) and swim close together in schools without bumping into one another.

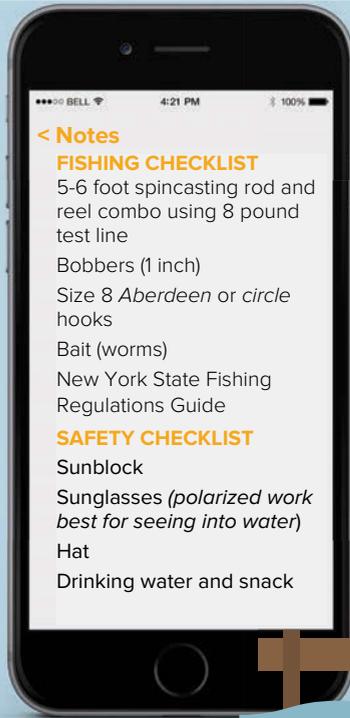
## AQUATIC FOOD CHAIN



A food chain shows the links between what an animal eats and what it is eaten by. This sample food chain might happen in a pond, lake, or stream. Follow the arrows up the line to the "top predator."

**Fish eat a variety of things.** Large predators such as largemouth bass and chain pickerel eat other fish, as well as frogs, snakes, mice, and even birds. Bluegills and pumpkinseeds eat insects and zooplankton—tiny underwater animals. The types and sizes of food that fish eat usually change as they grow. Some fish, such as trout and sunfish, eat mostly insects and zooplankton their whole lives.

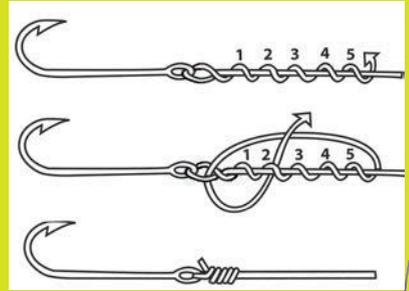




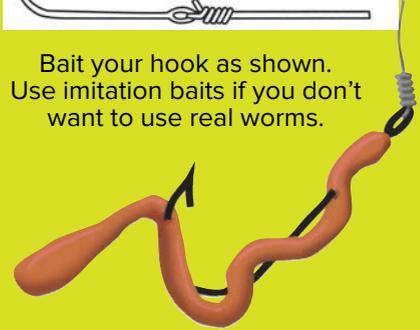
# GET READY & BE PREPARED



Attach your hook to the line using this improved clinch knot.

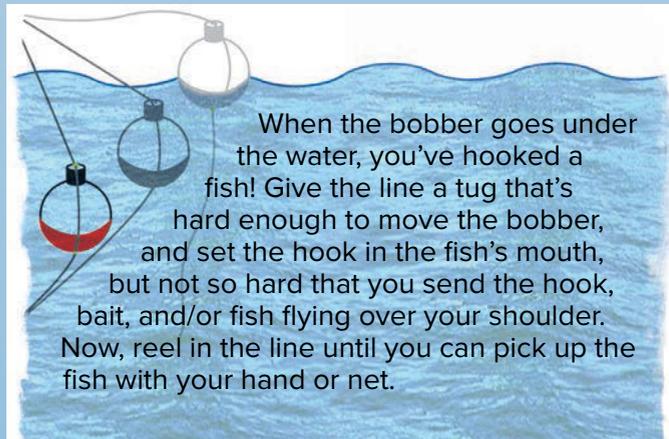
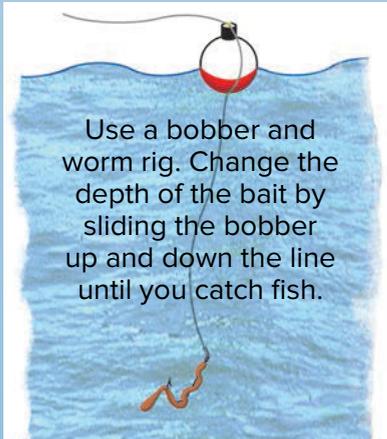


Bait your hook as shown. Use imitation baits if you don't want to use real worms.



## IN NY, IF YOU ARE 16 YEARS OLD OR OLDER, YOU NEED A FISHING LICENSE.

For details, visit [www.dec.ny.gov/permits/6091.html](http://www.dec.ny.gov/permits/6091.html) or see the Fishing Regulations Guide.



To take a fish off the line, hold it firmly around the body. Watch out for sharp spines on some fish's fins. To remove the hook, push it down and turn it so it comes out the way it went in.



## Using a spincasting rod:

1. Press and hold down the reel's release button. Using wrist action (not the whole arm), slowly bring the rod straight up over your shoulder.
2. Gently sweep the rod forward, causing the rod to bend with the motion.
3. As the rod moves in front of you, reaching about the 10 o'clock position, release your thumb from the button.

The bend in the rod casts the bobber and bait out.

**You have just made a cast!**



# COMMON SPORTFISH

**SPORTFISH:** the fish anglers enjoy catching.

**HABITAT:**  
shallow,  
weedy lakes  
& ponds



## Largemouth Bass

**Average Size:** 12-18 inches

**Fishy Fact:** The most popular sportfish in NY State.



## Bluegill/Pumpkinseed (sunfish)

**Average Size:** 5-7 inches

**Fishy Fact:** Usually the first fish caught by kids



## Yellow Perch

**Average Size:** 6-12 inches

**Fishy Fact:** Often travels in schools with others the same size and age.



## Brown Bullhead

**Average Size:** 8-12 inches

**Fishy Fact:** Whiskers, or barbels, help to locate prey along the bottom.

## Chain Pickerel

**Average Size:** 15-20 inches

**Fishy Fact:** Lightning fast speed and razor sharp teeth make this one of the top predators in lakes and ponds.



## FAMILY TIES

Scientists group all living things into “families” of species that are related to each other. Some fish families look fairly similar, but not always! Of the fish shown on these pages, largemouth bass, smallmouth bass, rock bass, bluegill and pumpkinseed are all related and belong to the sunfish family. Brook trout, rainbow trout, brown trout, and lake trout are members of the trout family.

# OF NEW YORK STATE



## Smallmouth Bass

**Average Size:** 10-16 inches

**Fishy Fact:** Pound for pound, the strongest freshwater fish.

**Habitat:**  
cool, rocky  
areas



## Rock Bass

**Average Size:** 5-10 inches

**Fishy Fact:** Red eyes make this fish look different from others you might catch.



## Brook Trout

**Average Size:** 5-9 inches (stream),  
9-15 inches (lakes)

**Fishy Fact:** New York's official state freshwater fish.

**Habitat:**  
cold lakes,  
ponds &  
streams



## Lake Trout

**Average Size:** 15-24 inches

**Fishy Fact:** New York's largest native trout, and the trout with the longest lifespan.



## Brown Trout

**Average Size:** 8-15 inches (streams),  
16-30 inches (lakes)

**Fishy Fact:** Originally from Europe, brown trout are one of the most difficult trout species to catch.



## Rainbow Trout

**Average Size:** 8-12 inches (streams),  
and up to 27 inches (lakes)

**Fishy Fact:** Rainbow trout are known for the acrobatic jumps they take when caught.



## Walleye

**Average Size:** 14-25 inches

**Fishy Fact:** They have a shiny lining on the inside of their eyes, helping them to find prey at night.

**HABITAT:**  
medium to  
large lakes &  
rivers; areas  
with gravel  
and rocks.



## Black Crappie

**Average Size:** 8-12 inches

**Fishy Fact:** Also called strawberry bass and calico bass.

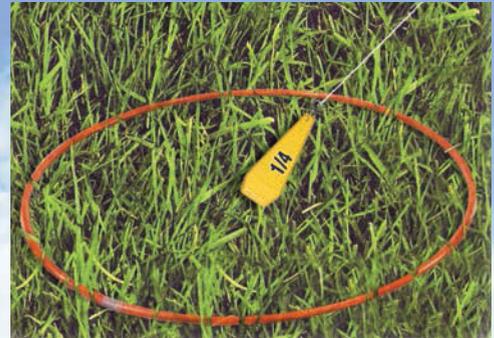
**HABITAT:**  
clear ponds,  
lakes & rivers  
with lots of  
vegetation

# MASTER CASTERS

It's not how far you can cast, but getting your cast to land where you want it to that makes you a "master caster". Practice makes perfect, so let's have some fun! Practice outdoors in the yard, or indoors in the gym. Just watch out for the ceiling lights!

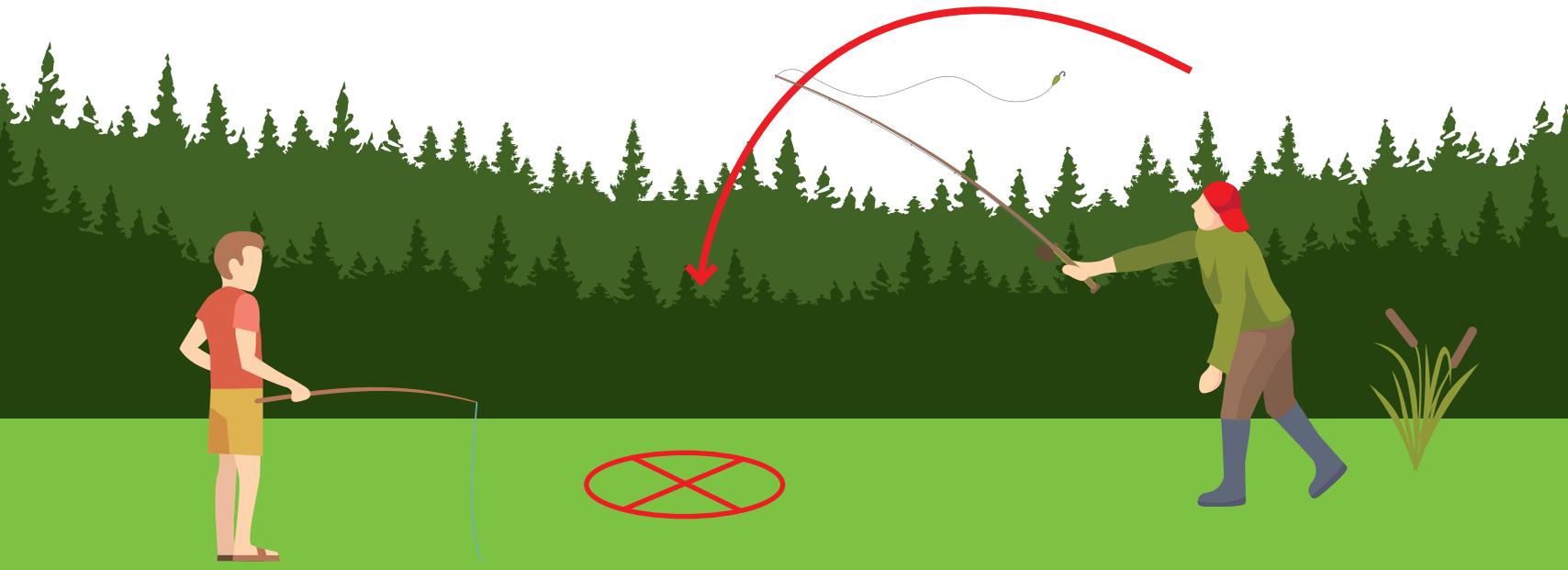
## YOU'LL NEED

- Spincasting rod and reel combo (basic fishing pole)
- Casting plug(s) - They're much safer than hooks when practicing. Use an improved clinch knot as seen on page 5 to tie the plug to the end of your line.
- Hula hoop(s), a garbage can, or other casting target.



## LET'S GET STARTED

Cast your plug so it lands inside the target. See page 5 for casting instructions. Move the target farther away as you get better. Remember, safety comes first so always look behind you before you cast!



## FOR MORE INFORMATION:

Follow links from these web pages for lots of information about fish and fishing.

Freshwater Fishes—[www.dec.ny.gov/animals/269.html](http://www.dec.ny.gov/animals/269.html)

Fishing—[www.dec.ny.gov/outdoor/fishing.html](http://www.dec.ny.gov/outdoor/fishing.html)

I FISH NY Beginners' Guide to Freshwater Fishing

[www.dec.ny.gov/outdoor/98506.html](http://www.dec.ny.gov/outdoor/98506.html)

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### *Conservationist for Kids* **Supplement for Classroom Teachers – Go Fishing!** **February 2019**

#### **Fish and Fishing**

Whether it's bass from the Finger Lakes, bluefish from the waters around Long Island, sunfish from a backyard pond, or goldfish in a bowl, people are fascinated by fish. We watch them slip through the water and wonder at their agility. Studying fish introduces natural science concepts to youth: food chains, habitat and adaptations to a specific environment. Anatomy and movement can be easily observed by simply keeping a small tank of fish in the classroom.

For many New York State families, fun with fish includes fishing—often a tradition shared from one generation to the next. For others, it's an outdoor activity they're curious about but not sure how to begin. For those who are interested in trying fishing, but don't want to invest in the equipment, some public libraries loan fishing rods and tackle to patrons. In addition, the New York State Department of Environmental Conservation (DEC) offers free fishing clinics, which include instruction and equipment. Visit [www.dec.ny.gov/outdoor/27123.html](http://www.dec.ny.gov/outdoor/27123.html) for the 2019 schedule.

Anyone age 16 and up is required to have a freshwater fishing license, unless you are attending a free fishing clinic or taking part in one of the Free Fishing Days/Weekends\* offered throughout the year. For more information about New York's fishing regulations, visit [www.dec.ny.gov/permits/6091.html](http://www.dec.ny.gov/permits/6091.html).

#### **This Issue's "Outside Page"**

*Master Casters* is a great activity for hand-eye coordination, as well as developing an appreciation for the skills involved in fishing. Speak with your school administration about using the gymnasium or an outdoor space to do this activity with your students, or possibly incorporating it into their physical education curriculum.

#### **Teacher Workshops**

For teachers who have participated in a Project WILD Aquatic or Project WET workshop, the activities listed below complement this issue of *Conservationist for Kids*. Visit [www.dec.ny.gov/education/1913.html](http://www.dec.ny.gov/education/1913.html) for information about workshops and how to obtain curriculum and activity guides.

Project WILD Aquatic:	Designing a Habitat; Fashion a Fish
Project WET:	Water Address



## Supplemental Activities for the Classroom

### Visit a Fish Hatchery

Take your class on a field trip to one of the 12 fish hatcheries operated by DEC. Numerous fish species are reared for stocking into more than 1,200 public waters across the state. All hatcheries are open to the public from spring through fall, and several are open year-round. A map showing where the fish hatcheries are located, a link to frequently asked questions, and contact information for individual hatcheries is available at [www.dec.ny.gov/outdoor/7742.html](http://www.dec.ny.gov/outdoor/7742.html).

### Fish in the Classroom

Observing fish directly is a great way to learn about them. By keeping fish in the classroom, students will learn about their physical features, watch how they move, and see water passing into their mouths and out through their gills as the fish breathe. They also learn valuable lessons about caring for animals. Some teachers keep an aquarium or two in their classroom and find it to be a valuable teaching tool. Trout in the Classroom is a great way to get students involved in raising fish from eggs for release in local waters. Trout in the Classroom programs begin each September and operate until the fry (young fish) are released the following April. Learn more at [www.troutintheclassroom.org](http://www.troutintheclassroom.org).

### Resources about Fish

*Fish* (DVD) Bill Nye "The Science Guy" (Disney Educational Productions, 2005)

*Fish Watching: An Outdoor Guide to Freshwater Fishes* by C. Lavett Smith (Cornell University Press, Ithaca, NY, 1994)

*National Audubon Society First Field Guide: Fishes* by C. Lavett Smith (Scholastic Publishing, NY, 2000)

*Pond Life: A Guide to Common Plants and Animals of North American Ponds and Lakes* by George K. Reid (Golden Press, New York, 1987)

Freshwater Fishes [www.dec.ny.gov/animals/269.html](http://www.dec.ny.gov/animals/269.html)

DEC color brochures of New York wildlife, including fish [www.dec.ny.gov/pubs/104996.html](http://www.dec.ny.gov/pubs/104996.html)

### Resources about Fishing

*I FISH NY Beginners' Guide to Freshwater Fishing*, New York State Department of Environmental Conservation, Albany, NY. Available as a PDF download: [www.dec.ny.gov/outdoor/98506.html](http://www.dec.ny.gov/outdoor/98506.html)

*A Guide to Fresh and Salt-water Fishing* by George S. Fichter and Phil Francis (Golden Press, New York, 1987)

*The Kids' Book of Fishing* by Michael J. Rosen (Workman Publishing Co. Inc., New York, 1991)

DEC's gateway webpage to fishing information and resources [www.dec.ny.gov/outdoor/fishing.html](http://www.dec.ny.gov/outdoor/fishing.html)

NY Fishing, Hunting & Wildlife App: This official app for DEC will provide up-to-date information on fishing, hunting and wildlife watching. Learn more at [www.dec.ny.gov/outdoor/96470.html](http://www.dec.ny.gov/outdoor/96470.html)

"Take Me Fishing" from the Recreational Boating and Fishing Foundation [www.takemefishing.org/](http://www.takemefishing.org/)

A variety of short videos about fish and fishing are also available on DEC's YouTube channel, located online at [www.youtube.com/user/nysdecvideos](http://www.youtube.com/user/nysdecvideos).

\*New York State offers several Free Fishing Days/Weekends over the course of the year, when a fishing license is not required. To learn more, visit [www.dec.ny.gov/outdoor/89821.html](http://www.dec.ny.gov/outdoor/89821.html).

**Conservationist for Kids and an accompanying teacher supplement are distributed free of charge to 4<sup>th</sup>-grade classes throughout New York State three times per school year (fall, winter and spring).** If you would like to be added to or removed from the distribution list, need to update information, or if you have questions or comments, please e-mail the editor at [KidsConservationist@dec.ny.gov](mailto:KidsConservationist@dec.ny.gov) or call 518-402-8047. Limited quantities of some back issues are also available on request. The full archives can be found online at [www.dec.ny.gov/education/100637.html](http://www.dec.ny.gov/education/100637.html)