



Yellow Perch and Barotrauma

Jesse Lepak, Ph.D.

Great Lakes Fisheries and Ecosystem Health Specialist

email: SGOswego@cornell.edu

Yellow perch are a valuable resource in Lake Erie. Anglers from around the region visit the Lake to catch and harvest these delicious fish.

Some yellow perch caught in deeper parts of Lake Erie can suffer from something called barotrauma.

Barotrauma is tissue damage from the change in pressure and expansion of the swim bladder when fish are brought to the surface from deep water.

In the eastern portion of Lake Erie, yellow perch can grow to large sizes, creating a situation where anglers may want to release small fish and keep the big ones as part of their harvest limit. Unfortunately, when released fish are suffering from barotrauma, they can have a low chance of survival.

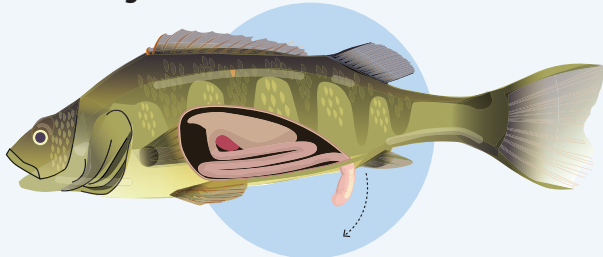
When released, these fish often float, and can experience mortality from tissue damage, exposure, boat strikes, or from predators such as gulls.



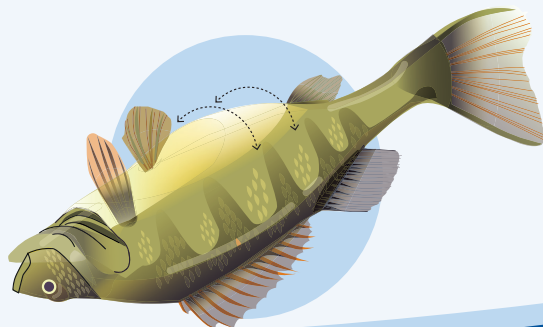
How do I recognize barotrauma?

There are some external symptoms of barotrauma that are relatively easy to recognize:

☒ **Protruding intestines**



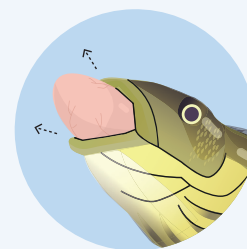
☒ **Distended abdomen and inability to swim properly**



☒ **Bulging eyes**



☒ **Protruding stomach**



Some symptoms are less obvious like gas bubbles under the scales, at the base of the fins, or around the eyes. Other symptoms, like internal bleeding or organ damage are not easy to recognize.



Things to consider first when fishing:

- » **Handle all fish with care**, try to minimize stress, keep fish horizontal and in the water as much as possible, and use caution not to remove their slime layer or touch their gills.
- » Up to 50 yellow perch per day, per angler, can be harvested in New York waters of Lake Erie, all others should be released immediately and uninjured.
- » If you decide to return the fish to the water, do so carefully, but quickly. **Less time out of water is better!**
- » If you are catching yellow perch from water deeper than 25 feet, they appear bloated, and are unable to swim back down on their own, **they may have barotrauma**.
- » Not all yellow perch with barotrauma can be revived, even if treated properly.
- » Yellow perch that are injured or that cannot be released properly (e.g., floating at the surface), should be counted towards your daily limit in New York waters.



What are my options if I catch a yellow perch with barotrauma?

Switching depths, techniques, or targeting other fish species are options if you are catching a lot of fish with barotrauma. However, as most yellow perch anglers know, small and large fish tend to be together in deeper water at certain times of the year. So, catching only large yellow perch is difficult, though many of us probably wish that wasn't the case!



Keep your catch!

- » The yellow perch population in Lake Erie is managed as a fishery to support recreational and commercial harvest.
- » Yellow perch are a high quality protein source for anglers/consumers.
- » Harvest yellow perch with barotrauma to avoid wasting this valuable resource.



Treatment

While not all fish with barotrauma can be revived, proper treatment can increase survival of released fish.

If you find yourself in a situation where treating a fish for barotrauma is necessary, there are things you can do. However; **only consider treating fish for barotrauma that have barotrauma**, and be sure to understand how treatment is done correctly.

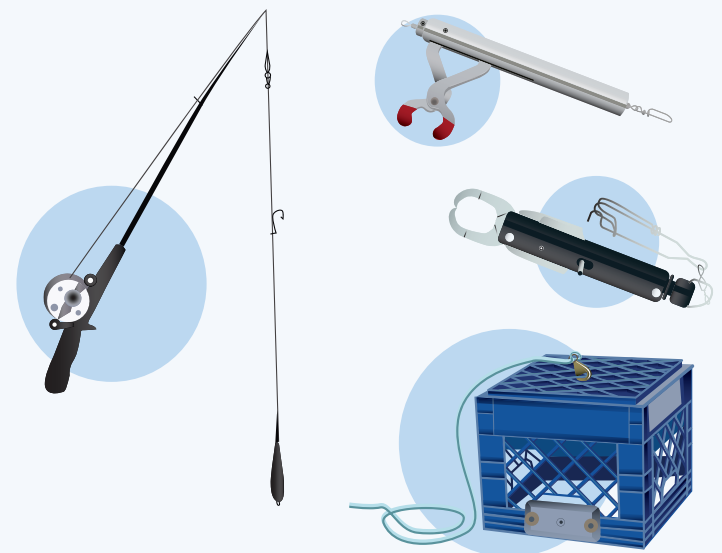


Descend your yellow perch

- » Fish can be "recompressed" using tools to lower and release them at the depth they were caught.
- » This technique can increase survival of released fish versus those that have had no treatment.

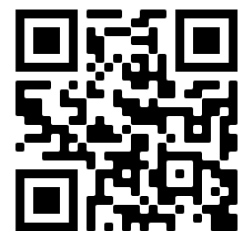
Examples of fish descending devices.

Multiple tools can be used to descend fish properly, including homemade devices.



Instructions and tools for descending a variety of fish can be found here:

http://youtu.be/Lw_9tT_OVko



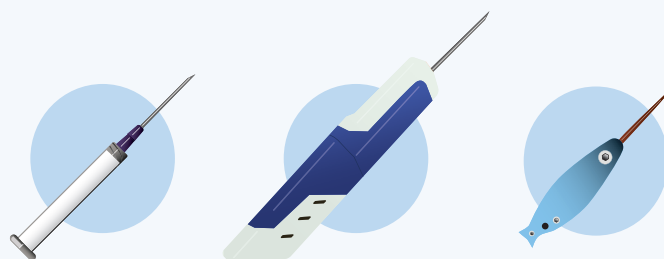


Vent/fizz your yellow perch

- » Anglers can puncture the swim bladder to reduce pressure and buoyancy.
- » **This will cause tissue damage**, and should only be done if other options are not available.
- » If done properly, this technique can increase survival of released fish versus those that have had no treatment.
- » Use a clean, hollow, 16-gauge (or smaller) needle or venting tool inserted (see image below) at a 45° angle between scales, no deeper than necessary to minimize tissue/organ damage.
- » Only release enough air to allow the fish to right itself and descend on its own.
- » Hints/reminders:
 - » pectoral fins are good landmarks for needle placement (see image below).
 - » bubbles will escape from the needle if this procedure is done correctly underwater.
- » This information is generally applicable to yellow perch. Do not apply this vent/fizz information to other species.

Examples of fish venting/fizzing devices.

There are multiple tools available that can be used to vent/fizz fish.



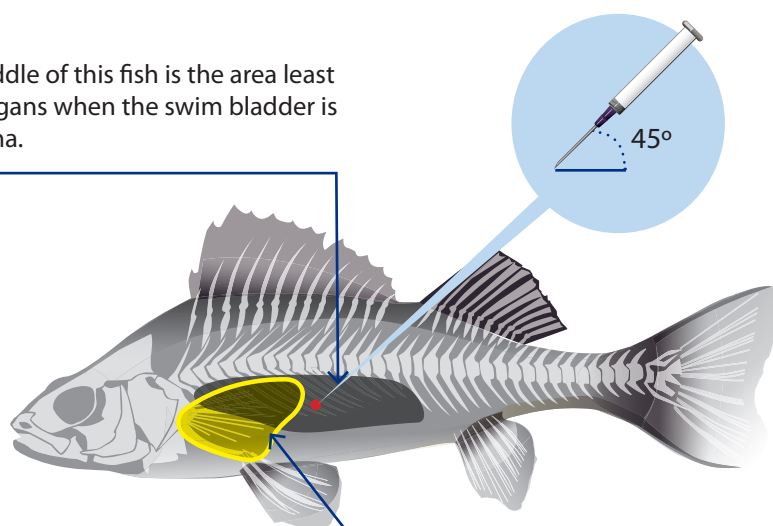
Instructions for venting/fizzing can be found here:

<http://youtu.be/ruibCFNjt9A>



An x-ray image of a yellow perch.

The dark area in the middle of this fish is the area least likely to contain vital organs when the swim bladder is inflated from barotrauma.



A rough outline of the pectoral fin is highlighted in yellow as a landmark for reference.



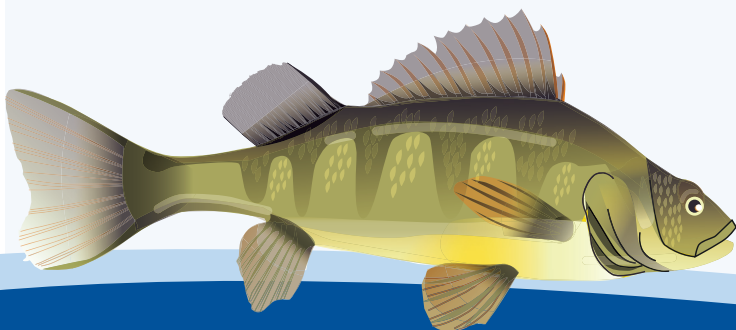
Potential drawbacks to treating fish

Yellow perch in Lake Erie are managed to be harvested, and harvesting fish with barotrauma (up to the 50 fish limit), is a great option. If harvest is not an option, treating fish with barotrauma can benefit the fish and the reputation of the fishery. However, there are some potential drawbacks to treating fish with barotrauma that one must consider:

- » Additional handling of fish is needed and could result in injury
- » Requires some special training and tools to do properly
- » Improper treatment can be harmful to the fish
- » Larger descending devices may alert other fish to your presence
- » Takes time away from fishing
- » Risk of injury to the angler (venting/fizzing)

Here is a table that compares some of the pros and cons of barotrauma treatment methods (from C. Somers, University of Regina, Lake Erie Barotrauma Workshop, October 2018).

Characteristic	Descending	Vent/fizz
Reduces buoyancy	+	+
Increases survival	+	+
Treats all tissues	+	×
Special tools	+	+
Special training	+	+
Non-invasive	+	×



What should I do?

Every situation is different, and each fish can respond differently to capture and handling. This fact sheet is relevant to yellow perch in the eastern basin of Lake Erie, and represents the best available science as interpreted by New York Sea Grant and project partners. **The decision is up to you.** If you release yellow perch with severe injuries from barotrauma, the fish is likely to fall victim to a gull, boat strike, exposure, or prolonged death from tissue damage; harvesting is a viable option. If you are interested in alternatives, review the information here and elsewhere to determine what approach will work best for you. Ethical angling is good for fish and the reputation of the fishery.

When in doubt (and below your 50 allowable yellow perch, per angler, per day) **“harvest your perch or release them uninjured”**



For more information contact:

Dr. Jesse Lepak, Great Lakes Fisheries and Ecosystem Health Specialist, New York Sea Grant,
SGOswego@cornell.edu

Captain Tom Marks, New York Director, Great Lakes Sport Fishing Council,
CAPT.TOMMARKS@gmail.com



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