

# FISHING FOR AQUARIA



Jon Andrews

Ayer, MA

## HOOK AND LINE FISHING

A truly native aquarium should be created from local gravel, local wood, local plants, and finally, locally-caught fish. Although there are businesses selling native North American fish, no one can provide the exact species in your area better than yourself. Further, I would go so far as to say that capturing and selecting the individual fish is part of the process of keeping a native aquarium. This article will focus on practical tips and methods for aquarists wishing to effectively gather local fish.

### Laws

Fishing regulations vary from state to state. I will summarize Massachusetts regulations and your state may have similar regulations. I will break freshwater fish into four groups, each having different levels of protection.

1. First, there are several species that are protected and cannot be possessed. In Massachusetts, they are: Sturgeon (all species), American Brook Lamprey, Atlantic (sea-run) Salmon, Bridle Shiner, Burbot, Eastern Silvery Minnow, Lake Chub, Longnose Sucker, and Northern Redbelly Dace.
2. The next category is game fish. Game fish have regulations restricting minimum size and catch limits. All of these species are likely too large for the average aquarists.
3. Third are the baitfish species. Live baitfish can be taken by licensed fisherman and possessed alive. There are no minimum sizes (except eels) or daily limits. These are:

American Eel (*Anguilla rostrata*) (4 inch minimum)  
 White Sucker (*Catostomus commersoni*)  
 Creek Chubsucker (*Erimyzon oblongus*)

Banded Killifish (*Fundulus diaphanus*)  
 Mummichog (*Fundulus heteroclitus*)  
 Pumpkinseed (*Lepomis gibbosus*)  
 Golden Shiner (*Notemigonus crysoleucas*)  
 Emerald Shiner (*Notropis atherinoides*)  
 Spottail Shiner (*Notropis hudsonius*)  
 Rainbow Smelt (*Osmerus mordax*)  
 Yellow Perch (*Perca flavescens*)  
 Fallfish (*Semotilus corporalis*)  
 Bluntnose Minnow (*Pimephales notatus*)  
 Fathead Minnow (*Pimephales promelas*)

4. The fourth category encompasses all the remaining species. These species can be caught and kept, without minimum size requirements or creel limits, but cannot be transported live in Massachusetts.

### Gear

One simply needs a fishing license and basic equipment to get started. The fishing rod should be small, as you will often be seeking the smallest of fish in tiny bodies of water. A small fishing rod is far easier to deal with in heavy cover or while following small streams. Also, anything heavier is overkill when fishing for small fish. Heavy line is not needed and will make threading a small hook difficult or impossible. Generally, artificial lures are far too large for the fish



A small stream in north-central Massachusetts. (Photo by Jon Andrews)

Jon Andrews is an amateur naturalist and lifelong resident of New England. He is currently a resident of Ayer, Massachusetts.



Blacknose Dace caught on a number 24 dry fly hook. (Photo by Jon Andrews)

aquarists seek. The alternative is live bait and a tiny hook. The drawback to live bait is that fish tend to try to swallow live bait, hook and all. To avoid this, do not give the fish enough time to swallow the bait, reel the fish in the instant that the bait is taken into the fish's mouth.

To ensure a minimum amount of damage to the fish, I suggest the following guidelines:

1. Use the smallest possible hook. The hooks needed to catch aquarium fish are specialty items in tackle shops. The best choice is a dry fly hook. These hooks are used by fly fishermen to tie flies for fly fishing. They are the best choice for a few reasons. First, they are made in incredibly small sizes. In freshwater fishing, hook sizes are numbered so that the higher the number or size, the smaller the hook. Hooks for our purposes would be no larger than size 14 and can be purchased as small as size 24. The difficulty in using small hooks lies in threading the fishing line through the hook's tiny eye. To compensate, you must use very thin fishing line or you will never be able to thread the line through the eye of the hook. Most fishing lines these days are braided. Braided line can be particularly difficult to thread through an eye. Monofilament, in small diameter, is the easiest to deal with. The line should be two- to four-pound test. Anything smaller, if you could find it, would break very easily and would be difficult to fish with. Another alternative is to use a monofilament leader, which is also a fly-fishing item. Leaders of monofilament for fly fishing are often tapered and taper down as low as one-pound test. You can then attach a short leader to more easily tie on small hooks.
2. Use "thin wire hooks." In the event that a fish swallows a hook, do not try to remove it. It is far less damaging to the fish to simply cut the line close to the hook and allow the hook to disintegrate. The hooks are steel and not designed to remain underwater for long periods. They are unlikely to interfere with feeding and will

disintegrate in short order. Be sure not to use painted hooks or plated hooks, as they will not disintegrate easily.

3. Avoid barbed hooks. The barb of the hook is designed to prevent the hook from coming out while fighting the fish. The barb damages the fish and we have no need for it when catching aquarium fish. The barb can easily be flattened by squeezing it with a pair of needle nose pliers or simply filed off. Barbless hooks are made, although they may not be readily available in the sizes we need.
4. Wet your hands before handling the fish and handle the fish just long enough to deal with the hook. Wet hands are lubricated and remove less of the fish's essential slimy coating. Also, needle-nose pliers will allow you to grab only the hook securely and remove it more quickly and easily.
5. Try to minimize the stress and damage to the fish by using a portable aerator and be very careful that the water does not over-heat. Ideally, keep the water temperature of the container used for transporting the fish the same as the temperature of the water the fish was caught in. I freeze a small bottle of water and place it in the fish bucket if it is warm outside. Avoid even a moment of warm water or low oxygen levels.
6. Lastly, I find it helpful to line the fish bucket with a plastic bag. Plastic buckets do not have perfectly smooth surfaces. As they are used, their surfaces become rough with imbedded dirt or tiny plastic burrs. I first realized the problem after transporting live tadpoles. The tadpoles that were sloshed around in the bucket would always be damaged. Lining the bucket with a plastic bag eliminated the problem. The dam-



Black vinyl-covered minnow trap. (Photo by Jon Andrews)





Many states require traps to be identified with a brass tag engraved with the owner's name and address. (Photo by Jon Andrews)

age to fish may be less noticeable but you want to keep the stress to a minimum and being scraped along the edge of a bucket will do far more damage than any tiny hook.

### DIPNETS AT NIGHT

I catch most of my aquarium fish with dipnets in streams, brooks, and rivers. Many fish take cover during the day, underneath rocks and other structure. They seem to become more active at dusk, leaving their safe zones to wander. Sculpins, for example, being nocturnal, seem to be always hiding during the day. I spent a weekend in a mountain stream trying to catch small sculpins with worms under rocks during the day to no avail. When I returned another weekend, I pursued them after dark, wading the stream with a spotlight and a dip net. The sculpins were all active and out of their hiding spots. I was able to catch four sculpins within an hour. I have had great luck catching dace and other species with this same technique. Fishing hours do not end at sunset, at least in my state, and catching bait fish with a light and a dip net is likely legal in your state as well. However wading rocky streams at night is very dangerous, even in shallow water. I do not suggest doing it alone.

### MINNOW TRAPS

In Massachusetts, fishermen are allowed only one minnow trap and the openings cannot be greater than one inch in diameter. The diameter restriction is likely to prevent juvenile turtles from entering the trap and drowning. Traps are more effective on some species than others. If the fish you are seeking will feed on something that you can use as bait, such as bread, catching them should be easy. If, however, the target fish feed on live food, such as sculpins, it becomes more complicated. Placing the minnow trap in a narrow area, where fish must pass through to get up or down stream, can be effective for most any small species.

Unfortunately, theft is a major problem with using minnow traps. I try to make my trap invisible. First, I use only

black, vinyl-coated traps. Also, I only use black twine, a strong braided line normally used for duck decoys. I will sometimes cover the trap with vegetation if it is set in an area with a lot of traffic. I have even gone so far as to tie the twine to a branch and place the branch into the water, leaving only a small portion of the branch above the water. Unless someone happens to pull the branch out of the water, no one will ever find the twine leading to the trap.

### ETHICS

Beyond knowing the regulations in your state, ethics are also essential. Aquarium fish are invariably exposed to disease and parasites. These may be introduced to the aquarium from other fish, organisms such as shellfish or even live or frozen foods. Once a fish or other organism is in an aquarium it is unethical to release it back into the wild, as you could be inadvertently introducing a new disease or parasite to a local body of water. Because of this, bring home only the animals that you plan on keeping permanently.

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