

Collecting Native Fishes

By John Bondhus

Collecting native fishes can be one of the most exciting and challenging aspects of native fish keeping. In this article I would like to give my own personal observations and ideas on collecting, where to look, what equipment to use, transporting them home, and acclimating them to aquariums and of course, the laws and regulations associated with it.

Before a person can go seining or collecting native fish, he needs to know the regulations associated with it. This sounds easy, but it is really a complex subject in some areas. The first logical step is to check the fishing laws and regulations, do they allow use of a minnow seine or dip net and how large. What species can you take with these methods and can you keep the fish alive that you have captured? These questions are not always easy to answer and merely asking your local conservation officer will not answer these questions for you in many states either. I know I spent many many hours trying to find out the laws in my state and I would like to give you my experiences so that it may save you some time on your own investigation of laws.

In my state it is legal to use a minnow seine for collecting unprotected species only (such as minnows and darters), other game species may be collected with the hook and line and many of the game species may not be collected or even kept in an aquarium out of season and of course many of the game species have minimum size limits also.

After doing a lot of searching, I discovered that it is possible to get special permits from the conservation department in my state that covers almost whatever you ask them to have it cover. In my case the special permits allows me to collect game and non-game species with the use of a seine, net, trap, and other methods if I stipulated that I wanted to collect with other methods, keep even out of season to my normal game limit of each species and also I included a species that has no legal limit. In my state Paddle fish are protected and I have permission to keep three of them. In other words, this special permit is merely a permit issued individually and it covers what you want it to cover. In Minnesota this permit is absolutely free, but there is a couple of catches, it took me several times to the conservation department before I obtained one of these permits. One of the first things to remember is they don't give these permits to just anybody, there must be a special reason for it. In my case the reason is for study of native fish and for photography of native fish. The first time I asked for a permit, I asked for a permit to keep native fish in an aquarium at home and naturally I was denied a permit for this because the person in charge of issuing the permits didn't see any reason why a person needed to keep native fish in an aquarium at home. After that time I found out these permits are issued if you have an aquarium that is on public display and I seriously thought of putting my aquarium on display so that I could get a permit. Of course anyone that enters an aquarium in a local fish show would be putting theirs on display and would be eligible for a permit for that reason. Then the conservation department considers it as an educational exhibit but if you have it in your own home apparently they don't consider it educational even though you might be learning more yourself than if a hundred people look at it in a store or a sports shop or something like that. I decided to rephrase my application for a permit and told them I was interested in studying native fishes,

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photographing them, and maybe writing articles on them. I immediately got my permit as our statutes in Minnesota say that they are available for scientific and educational purposes. An they don't say that you have to be Dean of the University to get them, but merely that they are for scientific and educational purposes. So anyone interested in studying native fishes would be eligible for them.

If you are not interested or cannot obtain a special permit there are other angles to explore. They involve very carefully reading all the statute laws on keeping and possessing wildlife in your state. In our state there are exceptions granted for ornamental fishes. I suppose the law meant tropical fish and gold fish. But if you read it very carefully you can see that a native fish is still ornamental, however they cannot be collected this way, but they can be kept without killing them and also transported possibly. There are many many more loop-holes that allow you to keep fishes such as keeping unprotected species. This includes almost all the fishes in your state except for the game fish, but to mention them here would just make a long article because every state is different. I can't emphasize too much that you should get ahold of the law involved and not get them from a second source, but get the actual laws that are written. Your conservation department should be able to get these for you or have copies of them. From here you can read them very carefully and see what you can come up with. Although in many states it won't be necessary to come up with anything because many states are more co-operative about keeping native fishes in aquariums.

Once you have determined the laws applicable you can start planning how to collect the fishes and if you can't get permission to seine, you can of course use barbless hooks and other legal methods. If you are after just about any species that you might come up against, it doesn't require any particular study. Any river or lake with fish in it would be good to start. It is important to remember that the fish are only in certain areas in any river or lake. For example, in a large lake that is reasonably deep you are not going to find many fish out in the middle near the surface in 20 feet of water where there are no weeds or any type of cover, but you will find many species in the weeds or near shore or in any area where there is a feeding area. Thus it is very important to study the lake and look around until you find where the fish are, especially the type of fish you are looking for. In a river the fish would normally be in the deeper holes or feeding in the ripples and rapids or near shore. It is very important to know that fish don't swim aimlessly through the water, but are in an area for feeding, for the type of current they are looking for, for a place to hide or the certain temperature of the water they are looking for or shade if that is what they are looking for and a study of the habitat will quickly reveal the best spots to look.

If you are looking for a certain species, it is a waste of time to just go out and look. Unless you know already that is where the fish is. You have to study the species carefully and study the type of habitat preferred at different times of the day and whether they like sandy, muddy, weedy, rocky bottoms or if they prefer the large middle area of the lake. Also do the fish usually live in small ponds, large lakes, muddy lakes, or clear lakes, cold lakes or warm lakes, rivers or small streams, in the rapids or in the slower part of the river, in the shallow or deeper water. Examples would be that trout requires a lot of oxygen and therefore would be found only in the clear colder waters or well aerated streams. Bullheads or Catfish probably would like clear water, but since they are susceptible to being eaten by predators, they have to stay in the weeds or usually in the muddy ponds

where they have a chance of hiding from the predators. Sunfish can't stand a tremendous amount of mud in the water like Bullheads and therefore are limited to the weedier areas where there is more food and less predators. Darters would prefer gravel bottoms where they can hide somewhat among the rocks.

In addition to habitat, you must find the distribution record of the fish you are looking for in a library or in the local state book on fishes. The distribution or range of the fish is very important because if you are looking in many areas of most states many species of fish will be non-existent in many areas. And of course it would be impossible to collect them there. Check with local commercial fishermen and minnow dealers for good spots also. If you can't find any distribution records in your state, check on some of the other adjoining states than study your local topography for clues that would suggest whether the fish can enter your area. Fish usually are limited by river systems. For example: In Minnesota the Red River flows northward and the Mississippi flows southward and all the streams and tributaries of the Red River would have certain species and the species in the Mississippi flowing the other direction would be completely different because the fish have been unable to cross to the other river system. Also the fishes above St. Anthony Falls in Minneapolis which is on the Mississippi are different than the fishes below the falls. The fishes can usually get down a water falls and propagate below it, but there are very few of them above the falls that have managed to propagate and cover all the tributaries above the falls. Thus if you are going to look for fish make sure that they are in the river system where you are looking. Even the fishes in the Missouri River system are quite often different than the upper Mississippi because many of the species do not go as far south as they would need to, to be able to cross over to the Missouri River system. Of course on the coastal streams it would be the same thing. Many species cannot enter salt water and would be unable to cross to the next river. But those species that can live in brackish water would probably be in all the coastal streams. Another thing to remember is although lakes do not always connect to rivers there is usually fish in them and they are usually the same as those in the river system nearest the lake. If the lake can maintain fishes it is almost certain that it has some fishes, although not as many species as the river or the lake connected to a river would have. They get here by traveling as fish eggs into other ponds on the feet of wading birds. Traveling in heavy rains in the water or fields and possibly underground in some cases. Being transplanted by fishermen or minnow dealers is another method. Once you know that distribution of a fish and the habitat it prefers and if you know enough of its life history you should be able to collect that species on the first try and it shouldn't take over two successive trips to collect it or you have more studying to do unless it is a very rare species.

One of the best ways to collect native fishes if it is legal, is with a minnow seine 10 to 25 feet long and from 3 to 4 feet deep. You have a small seine and are looking for small fish a 10 foot seine could have 1/8 inch or 3/16 inch holes, but a larger 25 foot seine would have larger holes such as 1/4 inch holes to make it easy to pull through the water unless you are looking for small species. This is especially important if you are seining in a river as a large seine with very small mesh would pull you down stream. In streams you can seine either up or down stream but the important thing to remember is that you need a good spot to beach the seine. Fish will usually swim well ahead of the seine until it reaches shore. When they can see that they are trapped where you are beaching your seine they will try to swim over the seine if possible or dig underneath it, so it is important when you are

coming close to shore to keep the bottom down tight to the bottom and don't pull it so fast that the floats go under and allow fish to go over the top. In deep water it is easy to lift the seine over rocks and obstructions, but as you near shore every time you lift it over something, half your fish go out so make sure your beaching area is reasonably free of obstructions. Preferrably a sandy or small gravel shore or muddy shore without weeds in it would be the best. It is not necessary to pull the seine fast. Only to be sure that as you near shore there is no way for the fish to escape. Another method that is usually legal is to use a barbless hook and line. Using this method, don't give the fish long to take the hook as they may swallow it and then it is impossible to remove the hook and keep the fish healthy and also of course never handle them with dry hands as this will cause fungus. If you are fishing in a boat be sure to remember that if you keep the fish in a net basket, never row the boat or ride to shore with the fish in the basket as they will rub up against the basket when the boat is moving and will rub the slime off them and then they will fungus soon after you get them home. It would be much better to put the fish in a pail and change the frequently, to keep the water cool and well aerated. Another method to use that is legal is the dip net, which works very well in shallow water or in weedy water or near shore where the fish are easy to capture. Another good spot to try with a dip net is below a culvert where it goes into another area as fishes are usually concentrated below any waterfalls or culvert that is spilling water into a larger area. Another method to use is simply hand catching fish under these same culverts, by lifting rocks, by trapping them in cans or by reaching under roots or weeds and feeling around until you find the fish and then lifting them out of the water quickly. This may sound difficult but it actually is quite easy if you remember to move your hands slowly. It doesn't startle fish, they actually seem to like the warmth of your hands. But once you decide to lift them out of the water you must be sure to have a good hold on them and move very fast as you flip them out of the water because once you make your move they will make theirs so you have to lift them out of the water before they have a chance to react.

Now that you have collected your fish, the next thing is transporting them home. It is usually easy to get large numbers of fishes especially with a minnow seine as you usually get hundreds of them every time you pull the seine but it is very important to remember to take a few of the best specimens as the more fish you have in your tank at home, the more danger there is that one of them is diseased and it will kill the whole bunch. Also it is much more difficult to transport a larger number of fish home safely. In transporting you can use battery operated aerators or an agitator which resembles an egg beater beating up the water and making it into foam which is a very efficient method of aeration or you can make something with a funnel stuck in the airstream of the car. It will funnel air into the airline connected to an airstone in your water or simply bring enough water so that you don't worry about aerating it. I wouldn't recommend the use of ice or chemicals to slow down the fish unless it is a very hot day in which case, ice can make it much easier to transport fish. For transporting them it might be a good idea to look at them carefully by putting them in plastic bags of water to make sure that you are not bringing home diseased specimens.

Once the fish are home, transfer them carefully to your aquarium and use as close to the same water as you can if possible. Don't put wild fish in your main aquarium as a good portion of them have diseases that as soon as they get into a crowded confined area will kill every fish in the aquarium. When you put them into the container for acclimating them, use a preventative chemical if possible to sterilize

the water such as one of the anti-biotics on the market or one of the sterilizing water dyes such as methylene blue or malachite green. If you have a diatom filter it would help to put this on and carefully keep the water completely clean. Use as much extra filtration and oxygen as you can. Also keep the fish isolated and don't let people look at them too much as it will frighten them and they will beat themselves up on the container. It is not necessary to feed fish collected the first few days as it merely increases the chance for disease to spread in the water. When you do start feeding them, most wild fish will need live food at first, but can be quickly trained to take dry food in most cases.

The last note I would like to leave you with in closing is that when you are collecting fish don't upset your environment anymore than is necessary by taking more fish than you can actually use or upsetting the stream or lake in any way that is not necessary. Of course it is very important to remember to never release any native fish in any area where you did not collect them as even a stream a mile or two away may be an entirely new river system where the fish could possibly reproduce and cause a considerable problem with the natural fish in that environment.