

# Collecting in Tennessee: A NANFA Primer

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by

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Tennessee is blessed with 302 to 319 species of freshwater fishes. (The exact count depends upon resolution of some taxonomic problems differentiating between valid species and subspecies.) Of all the 50 States, only Kentucky can boast a similar number of species. (Florida, although now probably home to more species because of exotics, has far fewer native species.) Of Tennessee's 300+ species, somewhere between 277 and 297 species are native to the State. Again, taxonomic problems obscure the total number, and in some cases the original distribution of widely introduced species is not clear.

## Obtaining a Collection Permit

Sadly, many of Tennessee's fish species are threatened with extinction. Wildlife in Tennessee is regulated by the Tennessee Wildlife Resources Agency (TWRA), and a list of currently protected fishes may be obtained by writing TWRA. A current list is included at the end of this article, but other fishes may be added at any time as deemed necessary. None of these species may be legally taken without a permit. Protected fishes are listed under three categories: "In Need Of Management," "Threatened" and "Endangered." Permits to take Threatened and Endangered fishes are generally issued only to managers of public aquaria and biologists operating with a museum or university. Permits to take species listed as "In Need Of Management" may be granted to individuals at the Executive Director's discretion.

To obtain a permit, simply write to TWRA's Executive Director (see sidebar on facing page). The

application should include the species desired, numbers of each to be taken, the purpose for the collection, and the proposed collecting location. Preference is given to captive breeding, restocking, and public education programs, and to species which are locally common. Permits for private study are seldom issued. The application should include any prior experience with captive breeding and maintenance. The permit granted may restrict the quantity, size, or number of fish to be taken; the locations where they may be taken; and the methods of capture. An annual report is also required, and other reports may need to be filed, depending on the species and the program.

## Legal Collection Methods

For non-protected species, collecting becomes a much simpler project. For our purposes, gamefishes include large (non-*Noturus*) catfishes, pikes, Pacific salmon and trouts, striped basses of the genus *Morone* (including Cherokee bass, a striped bass/white bass hybrid), basses of the genera *Micropterus* and *Ambloplites*, black and white crappie, sauger, walleye, sunfishes of the genus *Lepomis*, and yellow perch. All other fishes are considered nongame fishes.

**Taking Gamefishes** Legal methods of taking gamefishes are restricted to rod and line. No more than three rods per person is allowed. Some species may only be taken once they have reached a minimum length. In addition, some bodies of water present their own set of restrictions, which may include more stringent minimum lengths, slot limits (whereas fishes under and over the

“slot” length must be released), and the type of angling methods allowed (e.g., single hook artificial lures only). These regulations may change as conditions change, and the collector must obtain a current copy of the *Tennessee Fishing Regulations*. Any changes made after the Regulations go to press are displayed at area public boat docks. Aquarists in Tennessee wishing to keep game species must either take them by rod and line, obtain them from legal out-of-state sources, or purchase them from a hatchery.

**Taking Nongame Fishes** Methods for taking nongame fishes, the bulk of native aquarium inhabitants, are somewhat more lenient. Methods suitable for collecting for aquaria include tubbing, dip netting, cast netting, minnow traps, and seining. All nongame fishes may be taken without limit except for paddlefish (limit two), and where specific counties impose restrictions on the number of minnows taken and/or possessed. (As of March 1996, Cannon, Lincoln, Macon, Moore, Smith, Sumner, and Trousdale counties prohibit taking minnows for sale. These counties limited minnow possession to 150 per person, except for Lincoln and Moore counties, where the possession limit is increased to 250. Furthermore, the central stoneroller, known locally as the “hornyhead,”

may not be bought or sold in Carter, Unicoi, Washington, Johnson, Morgan, and Sullivan counties.)

The season for tubbing, dip netting and cast netting is open year-round in all waters, except for waters within 100 yards downstream of a dam, and where fishing is expressly prohibited or closed. Cast nets must be no more than 10 feet in radius, and must have a mesh size between 1/4” square and 1” square. Minnow traps and seines are allowed year-round and prohibited only in areas which are closed to fishing. Minnow traps must have no mouths or openings larger than 1-1/2”. Seines must be no longer than 10 feet, with a mesh size no larger than 3/8”. Seining is frowned upon in waters stocked with trout, as seining may be considered an attempt to remove trout from these waters.

Two other methods are also allowed. Shad trawling is legal when performed at least 1,000 yards away from a dam. The mesh of the trawl must be no larger than 1”, the hoop diameter no larger than 48”, and the net’s length no more than 72”. Even with these restrictions, only threadfin and gizzard shad may be taken, and none may be sold. One can also apply for a permit to fish with a single slat basket. This permit costs \$5, and includes a metal tag which must be installed on the slat basket. The basket itself must have a minimum of four openings of not less than 1-1/2” by 6”, making this method of little use for the aquarist.

Other methods of collecting fish, such as by chemicals or electroshocker, are allowed by specific permit only. Applications must be made to the TWRA Executive Director, and should specify the date(s) to be used, species sought, and the purpose for collecting. The filing of specific type of reports is also required.

**Aquarists wishing to contact TWRA for permits or clarification should write:**

Tennessee Wildlife Resources Agency  
Attn: Frank Fiss  
Ellington Agricultural Center  
P.O. Box 40747  
Nashville, TN 37204

**Those wishing to order fishing licenses by mail should write:**

Tennessee Wildlife Resources Agency  
Information Section  
Ellington Agricultural Center  
P.O. Box 40747  
Nashville, TN 37204

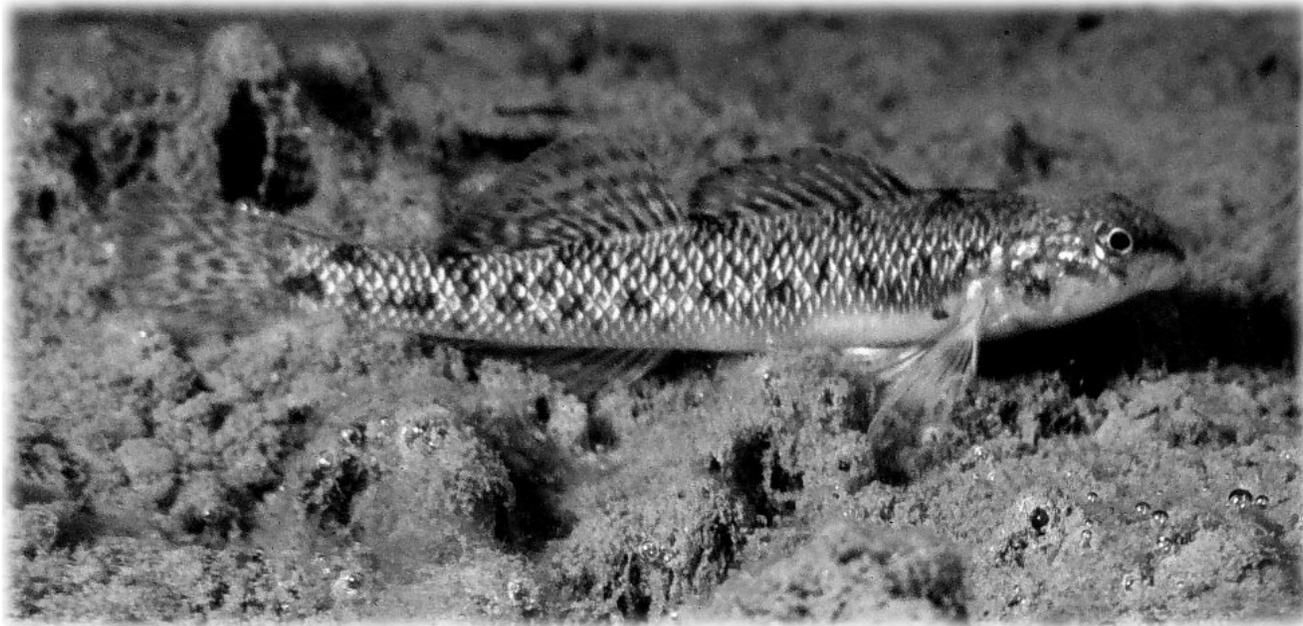
Include your name, address, date of birth, Social Security number, and physical features (height, weight, eye and hair color), and enclose the correct license fee from the table below:

| Nonresident Licenses         | Type | Fee     |
|------------------------------|------|---------|
| Annual Fishing (no trout)    | 76   | \$26.00 |
| Three-day Fishing (no trout) | 77   | \$10.50 |
| Ten-day Fishing (no trout)   | 79   | \$15.50 |
| Three-day All Fish           | 78   | \$20.50 |
| Ten-day All Fish             | 80   | \$30.50 |
| Annual All Fish              | 81   | \$51.00 |

**Keeping and Transporting Tennessee Fishes**

In addition to collection permits, Tennessee often requires permits for the possession, propagation, and shipping of wildlife, depending on which wildlife class an animal is placed. For native fish keepers, the most relevant classes are:

- *Class II.* Includes all native species not specifically listed in other classes, and specifically all crustaceans, aquatic snails, and salt water mussels (other than zebra mussels) held in aquaria or outdoor pond.
- *Class III.* Includes non-poisonous amphibians and all fishes held in aquaria.



Johnny darter, *Etheostoma nigrum*. Photographed in Illinois Creek, Wabaunsee Co., Kansas, with a Nikonos 11 camera, 35mm lens, and a Hydro Photo T1 close-up lens, f/16, 1/60, Ikelite Ai Substrobe, Velvia film. Photo © Garold Sneegas.

- **Class IV.** Includes native species whose possession is limited to zoos, exhibitors, rehabilitation facilities, and similar licensed and permitted facilities, and those species designated as injurious to the environment.

- **Class V.** Includes all non-native organisms—fishes, crustaceans, aquatic snails and zebra mussels—not held in aquaria.

A possession permit is not required for legally obtained native species held in aquaria. However, an importation permit is required for all fish species except for the following: those housed in aquaria, those native to Tennessee, triploid grass carp, goldfish, rainbow and brown trout, any salmon species, and the golden orfe. Thus, koi destined for a garden pond would require a permit to import (but not to keep).

Also, the outdoor propagation of any species other than those native to Tennessee, and of any maintained or propagated protected (Threatened, Endangered, In Need of Management) species, requires either a propagation permit or a fish farming license, depending upon scope and purpose.

**Class II Restrictions** For all Class II animals (aquatic life in aquaria except for fishes), the hobbyist must keep a record of the name and address of the supplier and date of acquisition. This is not usually enforced for native crayfishes, snails, and other invertebrates.

However, any large-scale or outdoor operation involving these species would be enforceable under Class II requirements. And since some native crayfishes and (especially) snails are protected, caution is advised in keeping and/or collecting these animals.

**Class III Restrictions** Most native fish aquarists deal with Class III. These animals do not require a permit to keep or transport. Gamefishes, however, cannot be shipped into, out of, or inside the state of Tennessee without evidence that the shipper possessed a legal fishing license at the time of capture. In addition, species listed as Threatened, Endangered, or In Need of Management require documentation proving the stock was legally obtained. Also, for any protected species, the aquarist should maintain detailed notes on husbandry and breeding to aid in future captive breeding and recovery projects.

**Class V Restrictions** Any Class V animal requires permits for collection, importation and possession. Aquarists may apply for a permit to collect and keep zebra mussels.\* No other Class V animals will be allowed.

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\* Use extreme caution when keeping zebra mussels. Unlike native mussels, whose larvae parasitize fish, the larvae of the zebra mussel lives in open water. Worse, they attach to surfaces and can survive for hours, perhaps days, out of water. Thus fisherman, boaters, and even innocent aquarists may inadvertently carry larvae from one body of water to another on boat hulls, nets, or even waders. Even zebra mussels' aquarium water, dumped outside, might conceivably spread the little pests.



Orangethroat darter, *Etheostoma spectabile*. Photographed in Illinois Creek, Wabaunsee Co., Kansas, with a Nikonos 11 camera, 35mm lens, and a Hydro Photo T1 close-up lens, f/16, 1/60, Ikelite Ai Substrobe, Velvia film. Photo © Garold Sneegas.

### **Collecting and Keeping Freshwater Mussels**

Freshwater mussels cannot be taken without a permit. Even then, permits are seldom issued to individuals as many of Tennessee's native mussel species are endangered, and captive breeding programs are beyond the reach of almost all individual aquarists. Any permit to collect and keep native mussels must include detailed plans for educational or captive breeding programs, and may require a visit by TWRA personnel to inspect the premises. Federal guidelines and permit requirements also apply. Furthermore, since many mussel species are externally similar, identification verification must be included in the application. Hobbyists wishing to keep mussels must purchase non-protected species from out-of-state, or obtain commercially harvested species from licensed mussel fishermen.

### **Other Licenses**

Some special licenses may be required. Fishing in trout waters may be construed as trout fishing, even for individuals obviously trying for aquarium species. As such, a trout or all-species license is required. In addition, some areas require a special fee (e.g., the Reelfoot Lake Preserve). Local bait and tackle shops are the best source of information on these areas.

Commercial fishermen are defined as those who take fish or other aquatic life for sale, barter or exchange, or who use methods of taking fish not allowed under the sportfishing regulations. These regulations are not aimed at the hobbyist. However, it is up to the TWRA to determine at what point a hobbyist becomes a commercial fisherman when it comes to trading fishes.

Persons wishing to capture and/or sell legal species of fish or aquatic life will require a bait dealer's license. Those who wish to breed and sell legal species of fish or aquatic life require a fish farming license. Contact the TWRA to determine the proper inspections and reports.

### **Summary**

Tennessee's wildlife laws are many and ever-changing. Both the TWRA and its individual agents are given a wide latitude in making and enforcing game and fish laws. Luckily, the TWRA enjoys the trust of Tennessee's people. Consequently, few complaints are filed.

Tennessee has a wealth of fishes and aquatic life. Its laws are tolerable and conservation-based. And the agents who enforce these laws are generally reasonable. (Although someone caught seining in a trout stream will have some explaining to do!)

So, come to Tennessee. It's a NANFA wonderland!

## Tennessee's Protected Fishes

### Endangered

1. Lake sturgeon (*Acipenser fulvescens*)
2. Pallid sturgeon (*Scaphirhynchus albus*)
3. Blue shiner (*Cyprinella caerulea*)
4. Spotfin chub (*Cyprinella monacha*)<sup>1</sup>
5. Palezone shiner (*Notropis albizonatus*)
6. Smoky madtom (*Noturus baileyi*)
7. Yellowfin madtom (*Noturus flavipinnis*)
8. Pygmy madtom (*Noturus stanauli*)
9. Tuckasegee darter (*Etheostoma blennioides gutselli*)
10. Egg-mimic darter (*Etheostoma pseudovulatum*)
11. Boulder darter (*Etheostoma wapiti*)
12. Barrens darter (*Etheostoma forbesi*)
13. Blue mask (jewel) darter (*Etheostoma* sp.)
14. Crown darter (*Etheostoma corona*)
15. Duskytail darter (*Etheostoma percunurum*)
16. Amber darter (*Percina antesella*)
17. Conasauga logperch (*Percina jenkinsi*)

### Threatened

1. Silverjaw minnow (*Ericymba buccata*)<sup>2</sup>
2. Slender chub (*Erimystax cahni*)
3. Blackside dace (*Phoxinus Cumberlandensis*)
4. Blue sucker (*Cycleptus elongatus*)
5. Frecklebelly madtom (*Noturus munitus*)
6. Dark River saddled madtom (*Noturus* sp.)
7. Barrens topminnow (*Fundulus julisia*)
8. Western sand darter (*Ammocrypta clara*)
9. Coppercheek darter (*Etheostoma aquali*)
10. Slackwater darter (*Etheostoma boschungii*)
11. Coldwater darter (*Etheostoma ditrema*)
12. Trispot darter (*Etheostoma trisella*)
13. Holiday darter (*Etheostoma brevirostrum*)
14. Longhead darter (*Percina macrocephala*)
15. Snail darter (*Percina tanasi*)
16. Bridled darter (*Percina* sp.)

### In Need of Management

1. Southern brook lamprey (*Ichthyomyzon gagei*)
2. Silver lamprey (*Ichthyomyzon unicuspis*)
3. Alligator gar (*Atractosteus spatula*)<sup>3</sup>
4. Alabama shad (*Alosa alabamae*)
5. Smoky dace (*Clinostomus* sp.)
6. Flame chub (*Hemitremia flammea*)
7. Plains minnow (*Hybognathus placitus*)

8. Lined chub (*Hybopsis lineapunctata*)<sup>4</sup>
9. Sturgeon chub (*Macrhybopsis gelida*)
10. Sicklefim chub (*Macrhybopsis meeki*)
11. Bigmouth shiner (*Notropis dorsalis*)
12. Rosyface shiner (*Notropis rubellus rubellus*)
13. Bedrock shiner (*Notropis rupestris*)
14. Tennessee dace (*Phoxinus tennesseensis*)
15. Highfin carpsucker (*Carpionodes velifer*)
16. Blackfin sucker (*Moxostoma atripinne*)
17. Northern madtom (*Noturus stigmosus*)
18. Southern cavefish (*Typhlichthys subterraneus*)
19. Golden topminnow (*Fundulus chrysotus*)
20. Crystal darter (*Crystallaria asprella*)<sup>5</sup>
21. Naked sand darter (*Ammocrypta beanii*)
22. Scaly sand darter (*Ammocrypta vivax*)
23. Sharphead darter (*Etheostoma acuticeps*)
24. Emerald darter (*Etheostoma baileyi*)
25. Teardrop darter (*Etheostoma barbouri*)
26. Splendid darter (*Etheostoma barrenense*)
27. Orange-fin darter (*Etheostoma bellum*)
28. Ashy darter (*Etheostoma cinereum*)
29. Redband darter (*Etheostoma luteovinctum*)
30. Smallscale darter (*Etheostoma microlepidum*)
31. Firebelly darter (*Etheostoma pyrrhogaster*)
32. Arrow darter (*Etheostoma sagitta*)
33. Striated darter (*Etheostoma striatulum*)
34. Tippecanoe darter (*Etheostoma tippecanoe*)
35. Tuscumbia darter (*Etheostoma tuscumbia*)
36. Tangerine darter (*Percina aurantiaca*)
37. Blotchside logperch (*Percina burtoni*)
38. Slenderhead darter (*Percina phoxocephala*)
39. Frecklebelly darter (*Percina sticogaster*)

### Extinct

1. Harelip sucker (*Moxostoma lacerum*)<sup>6</sup>

<sup>1</sup> formerly *Hybopsis monacha*; also known as *Erimonax monachus*

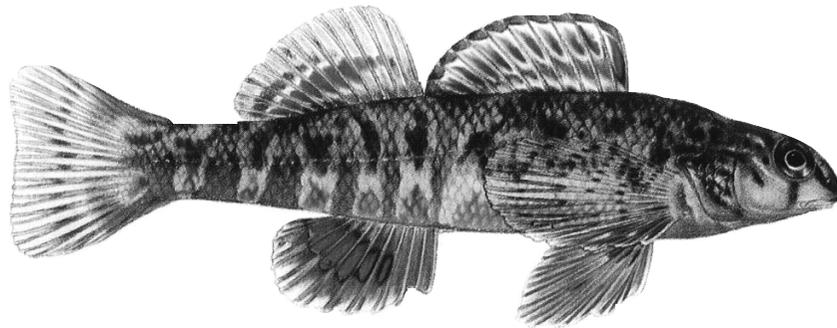
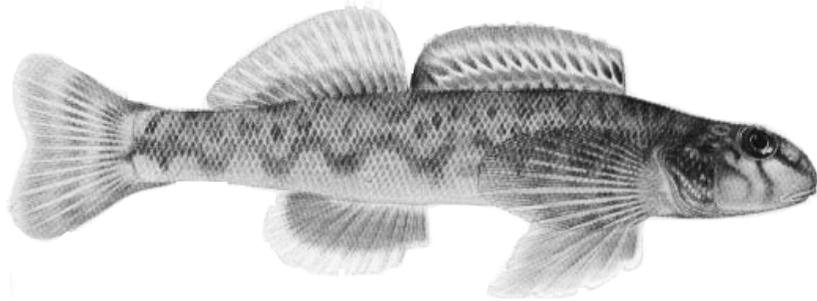
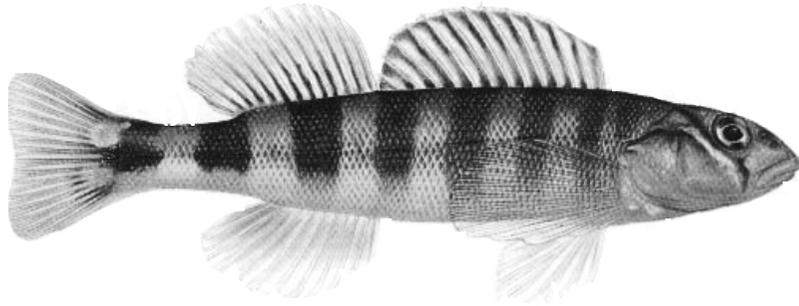
<sup>2</sup> also known as *Notropis buccatus*

<sup>3</sup> formerly *Lepisosteus spatula*

<sup>4</sup> also known as *Notropis lineapunctatus*

<sup>5</sup> also known as *Ammocrypta asprella*

<sup>6</sup> also known as *Lagochila lacera*



Three darters found in Tennessee, the site of NANFA's 1998 Annual Meeting (June 4-6). The collection of Tennessee fishes is the topic of this issue's feature article by Mike Whitfield. The three darters, from the top, are: gilt darter (*Percinaevides*), greenside darter (*Etheostoma blennioides*), and holiday darter (*E. brevirostrum*). Illustrations ©Joseph R. Tomelleri.