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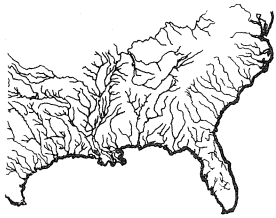
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Abstract

A Statement Concerning the Snail Darter. By David Etnier, plus News Notes, 4 pp.

Keywords

fishes, Snail Darter



Southeastern Fishes Council **PROCEEDINGS**

DEDICATED TO THE PRESERVATION OF SOUTHEASTERN FISHES

VOL. 1 NO. 1

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A Statement Concerning the Snail Darter

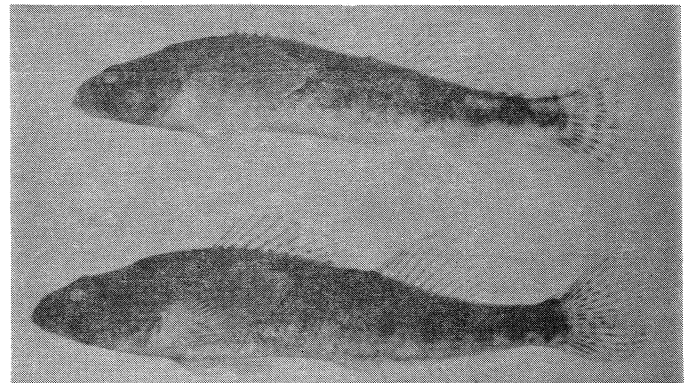
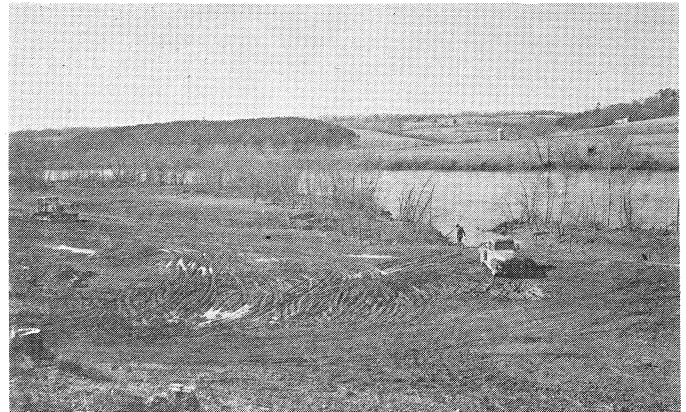
by David Etnier

The snail darter, *Percina (Imostoma) tanasi* still known only from the lower 15 miles of the Little Tennessee River, has been officially recognized by the U.S. Department of Interior Office of Endangered Species as "endangered" (Federal Register, 9 Oct. 1975, p 47505-06). A critical habitat listing appeared in the U.S. Federal Register on 16 Dec. 1975 (Vol. 40, No. 242, p 58308-58312), and could become effective following a 60-day comment period.

The Tennessee Valley Authority, currently constructing Tellico Reservoir on the lower Little Tennessee River, is continuing to work on the impoundment, reportedly 24 hours a day, 7 days a week. Listing of the snail darter as an endangered species has had no apparent effect on construction. It seems unlikely that critical habitat listing will have any noticeable effect on reservoir construction.

The TVA has countered pressures from environmentally concerned groups with the following positive statements concerning the continued existence of the snail darter: (1) They have initiated a transplant operation, currently with about 400 individuals transferred to the lower Hiwassee River and about 60 individuals transferred to the lower Nolichucky River. (2) TVA biologists have observed several adult snail darters, and recently about fifty juveniles, in water about 25 feet deep at about River Mile 0.2, just below the site of the dam, and have indicated in press releases the probability of the snail darter being more widespread in reservoirs in the area.

Both statements (1) and (2) above imply that the snail darter would not necessarily become extinct following impoundment of Tellico Reservoir. Considering point (1), the Hiwassee River was presumably available to the snail darter within the past few hundred years or so, since the presence of a closely related species in the Ozarks is best explained by assuming that both the Ozarkian and Tennessee upland species are relicts of an ancestral species once continuous across what are now the Mississippi River lowlands. The snail darter was presumably present in the main channel of the Tennessee River prior to impoundment, at least as far downstream as the Hiwassee River, only 100 river miles downstream from the mouth of the Little Tennessee River. In spite of almost certain access to the Hiwassee River, the snail darter is unknown from the Hiwassee as a native species. There are two possible explanations for the absence of the snail darter from the Hiwassee River, neither of which suggests any optimism for the success of the TVA transplant. Either there was never suitable habitat in the Hiwassee River, or the snail darter formerly occurred there, but has been extirpated. The transplanted darters will not attempt to spawn until about April, 1976. Since juveniles are extremely difficult to locate in the Little Tennessee River, it would be difficult to demonstrate successful spawning of the transplants until fall of 1976 or thereafter, even if the transplants were successful. Interior's suggestion that construction activities that could damage the snail darter be curtailed until such time as the transplant could be de-



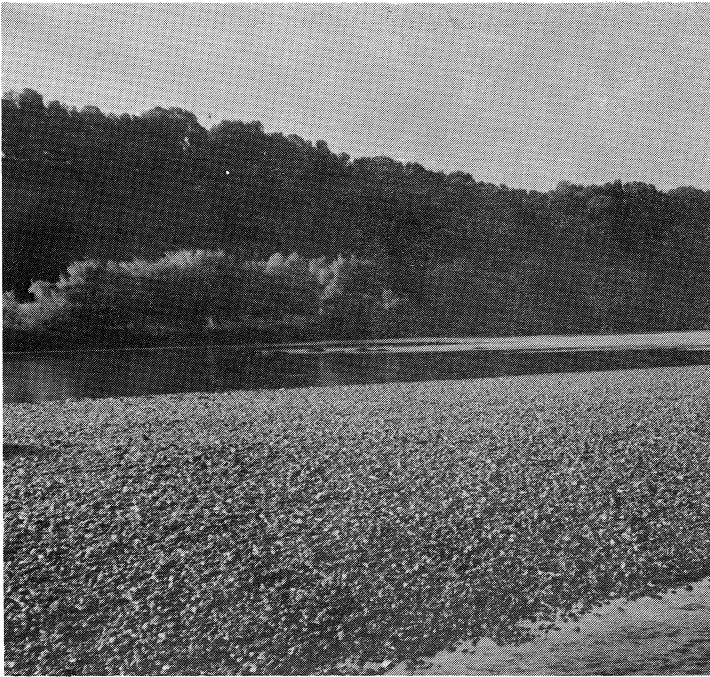
(Top) Post clearing view of the Little Tennessee River upstream from the spring. Right is down river.

(Bottom) *Percina tanasi* Etnier, (upper) male, (lower) female.

monstrated successful have been ignored by TVA. Chances of the transplant of less than 100 individuals into the Nolichucky River being successful would appear to be even more remote because of arguments presented above in addition to the small number of individuals and greater differences in native fish and invertebrate faunas.

Point number (2), discovery of snail darters in deep water just below the dam site by TVA biologists, does increase our knowledge about the biology of the species in addition to extending its known range a few miles downstream to the mouth of the Little Tennessee River. If the snail darter is indeed a deepwater fish, it should be relatively easy to collect in adjacent main channel reservoirs such as Watts Bar, Chickamauga, or Fort Loudoun. The fact that it hasn't appeared in reservoirs, coupled with the lack of specimens of other saddle-backed *Imostoma* from reservoirs, suggests that these specimens had merely drifted into this area as part of the normal behavioral repertoire of the species, but certainly does not imply any ability of the species to survive and reproduce in reservoir environments. (Continued on Page 2)

NEWS NOTES...



View of Little Tennessee River, prior to clearing, from gravel bar above mouth of spring, looking downstream. Courtesy Sam Venable, *Knoxville News-Sentinel*, April, 1975.

Darter (Continued)

The facts remain unchanged. Completion of Tellico Reservoir will result in extinction of the snail darter in its only known natural habitat, the lower Little Tennessee River. The complete extinction of the species would result unless transplants to the Hiwassee and/or Nolichucky rivers are successful.

The responsibility of the TVA, under the Endangered Species Act of 1973, is clearly to assure that their projects do not result in the extinction of endangered species. Their accelerated construction on the Tellico project indicates that they are ignoring this responsibility. The burden of proof is clearly on TVA. They should support an intensive survey to determine if there are other extant natural populations of the snail darter. If other populations are found and the Federal Endangered Species Office decides that the Little Tennessee River area is no longer a significant portion of the range of the species, then and only then should the project be eligible for activation.

Actual impoundment of water in Tellico Reservoir is not scheduled for several years. At present, however, timber removal operations along the banks of the river are proceeding, and prior to impoundment the entire area to be inundated will be clear cut. It is our feeling, as members of the Executive Committee of the Southeastern Fishes Council, that timber removal along both banks of the entire portion of the Little Tennessee River inhabited by snail darters is in itself detrimental to the species and could result in its extinction prior to impoundment. Since the legality of the impoundment is difficult to defend, it seems eminently logical to curtail all construction activities and immediately begin to search for an alternative use for the area to be impounded that would be compatible with preserving the snail darter as an extant species. All activities, including clearing of banks and construction, should be stopped.

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Etheostoma okaloosae Under Study

In August, 1975, Pete Crittenden (U.S. Fish and Wildlife Service) and Maurice F. Mettee (Alabama Geological Survey) were funded by the Region 4 offices of the USFWS to conduct a study on the Okaloosa darter (*Etheostoma okaloosae*) in Northwest Florida. The purposes of the study are to better define the critical habitat of the Okaloosa darter, to determine the extent to which the Brown darter (*Etheostoma edwini*) has invaded its range, and to assess its impact, if any, on the endangered form. The study will last for one year and involve six bi-monthly collecting trips to the study area.

Mississippi Legislature to Consider Wildlife Bill

The Mississippi Legislature will be considering a Wildlife and Scenic River Bill this session. The original bill is one of the strongest of any state, and includes the Wolfe River, the Strong River (Pearl River tributary) and the Big Black River.

Attorney General Fights Army Corps of Engineers

Bill Baxley, Attorney General of the State of Alabama, has filed suit against the U.S. Army Corps of Engineers for their planned channelization of the Luxapalila River. The hearing has been set for February 12, 1976, in Birmingham, Al.

The Southeastern Fishes Council is Incorporated

Thanks to the efforts of Wayne Starnes and David Etnier, the SFC was issued a certificate, in accordance with the Tennessee General Corporation Act, from the Secretary of State of Tennessee on July 8, 1975.

SFC Meets in New Orleans April 21, 1976

The Southeastern Fishes Council will meet Wednesday, April 21, 1976, at 8 p.m. in Room 10 of the Braniff Place Hotel in New Orleans. This meeting will coincide with the Association of Southeastern Biologists' annual meeting. We encourage every SFC member to attend this very important meeting. There are a number of issues that need everyone's attention as we proceed through this critical time of developing our fledgling organization.

ASIH Notes Meeting Schedule

The ASB conference in New Orleans in April also provides the setting for the ASIH Meeting. There will be three full sessions for the Ichs and Herps. The schedule is as follows:

First Session—Thursday, April 22, 8 - 11 a.m.,

Second Session—Thursday, April 22, 1:52 - 4:42 p.m.

Third Session—Friday, April 23, 8 - 11 a.m.

All three sessions are at the Braniff Place Hotel.

A Note on Postage

If you are shipping specimens in the mail, whether in a can or box, mark as "library material." The present rate is \$.08 for first pound, \$.04 per pound thereafter. This is about one third the cost of a shipment labeled as scientific specimens, no commercial value. This applies to domestic shipments only. Also, "library material" can be insured.

Committee Well Under Way

Technical Advisory Committee Chairman Royal Suttikus reports that all seats on his committee have been filled. Serving with Suttikus will be James Barkuloo, Glenn Clemmer, John Cooper, Bob Jenkins, Bob Kuehne, Henry Robinson, John Ramsey and Ralph Yerger.

SFC Membership Stands At 63

The membership of our Southeastern Fishes Council as of February 1, 1976, stands at sixty-three, representing twenty states and Washington, D.C. Listed below is our first official membership roll. (Each issue of the *PROCEEDINGS* will list, for your records, any new members.)

The Southeastern Fishes Council Membership Committee is made up of Jim Williams (Chairman), Carter Gilbert, Henry Robison and Herb Boschung

Anderson, William D., Jr. College of Charleston, SC	Crittenden, Edward U.S.F.W.S., Panama City, FL	Jenkins, Robert E. Roanoke College, VA	Scott, Donald C. Univ. Ga., GA
Barkuloo, James M. U.S.F.W.S., Panama City, FL	Dean, David M. Univ. S. Ala., AL	Jordan, Ralph, Jr. TVA, TN	Seehorn, Monte E. U.S.F.S., GA
Bauer, Bruce H. Tenn. Tech. Univ., TN	deSylva, Donald P. Univ. Miami, FL	Kuehne, Robert A. Univ. Ky., KY	Shipp, Robert L. Univ. S. Ala., AL
Beadles, John K. Ark. State Univ., AR	Douglas, Michael Edward Savannah River Lab., SC	Loesch, Harold LSU, LA	Snelson, Franklin F., Jr. Fla. Tech. Univ., FL
Bennett, James Alvin Texas A&M Univ., TX	Etnier, David Univ. Tenn., TN	Marion, Ken UAB, AL	Starnes, Wayne C. Univ. Tenn., TN
Bortone, Stephen Univ. West Fla., FL	Felley, James Savannah River Lab., SC	Menzel, Bruce W. Iowa State Univ., IA	Stauffer, Jay R. Univ. Maryland, MD
Boschung, Herbert Univ. of Ala., AL	Freeman, Harry W. College of Charleston, SC	Mettee, Maurice F. Ala. Geo. Survey, AL	Stiles, Robert A. Samford Univ., AL
Bouchard, Raymond W. MNH, Wash., DC	Fuller, Samuel L.H. Acad. Nat. Sci., PA	Miller, Robert R. Univ. Mich., MI	Stober, Richard C. U.S. Corps Eng., AL
Briggs, John C. Univ. South Fla., FL	Carter, Gilbert Univ. of Fla., FL	Mundy, Phillip Roy Univ. Wash., WA	Suttkus, Royal D. Tulane Univ., LA
Buth, Donald G. Univ. Ill., IL	Gunning, Gerald E. Tulane Univ., LA	Nester, Robert Douglas Univ. S. Ala., AL	Swift, Camm C. L.A. Nat. Hist. Mus., CA
Cashner, Robert C. Univ. New Orleans, LA	Harima, Hector Fla. Jr. Coll., Jacksonville, FL	Nunziata, C.A. Wantagh, NY	Thompson, Bruce Alan Tulane Univ., LA
Clemmer, Glenn H. Miss. State Univ., MS	Hastings, Philip A. Univ. West Fla., FL	Palmer, William M. N.C. State Mus., NC	Timmons, Tom J. Auburn Univ., AL
Cokendolpher, James Midwestern State Univ., TX	Heins, David C. Tulane Univ., LA	Ramsey, John S. USD, AL	Walker, William H. Aquatic Feed. Spec., PA
Collard, S.B. Univ. West Fla., FL	Hocutt, Charles H. Univ. Maryland, MC	Relyea, Kenneth Jacksonville State Univ., AL	Williams, James D. USFWS, Wash., DC
Conner, John V. LSU, LA	Howell, Mike W. Samford Univ., AL	Rickett, John D. Univ. Arkansas, AR	Yerger, Ralph W. Fla. State Univ., FL
Cooper, John Edward N.C. State Mus. Nat. Hist., NC	Jandebeur, Thomas S. Athens College, AL	Robison, Henry W. Southern State Coll., AR	

CLEAN Renounces Waterway

Following the recent Corps of Engineers analysis which reveals escalating costs and a decreasing benefit-cost ratio for the Tennessee-Tombigbee Waterway, the Board of Directors of Committee for Leaving the Environment of America Natural reaffirms its recommendation that the project be abandoned.

Tenn-Tom, the largest public works project in the United States, has been justified by the Corps on the basis of proposed benefits limited to four categories: navigation, recreation, fish and wildlife, and area redevelopment. The project offers neither flood control nor power production. Its primary function (82% of the benefits) is to provide a water route which will be built, operated, and maintained by federal tax monies. This constitutes a

unique subsidy for barge companies, as they pay no user fees.

Five years ago Tenn-Tom costs were calculated to be \$386,570,000. The benefit to cost ratio stood at 1.6 to 1. Present costs are now reevaluated to be \$1.36 billion, an increase of over one-half billion dollars (\$545 million) since last year. The benefit to cost ratio has consequently dropped to 1.1 to 1.

CLEAN has long supported the view that the waterway was environmentally unsound. With the incredible cost adjustments, it is increasingly obvious that the Tenn-Tom Waterway is an undesirable economic burden.

For additional information call Glenn H. Clemmer, (601) 325-5772, Home 323-1287.

Southeastern Fishes Council
PROCEEDINGS
BOX 5897 UNIVERSITY, ALABAMA 35486

DEDICATED TO THE PRESERVATION OF SOUTHEASTERN FISHES

Chairman's Message

For the purposes of our coming meeting in New Orleans and the future meetings I would like to request that members select at least one aquatic area in which he has had recent field experience and prepare a brief report for oral presentation. The particular site may be a stream which has a rich assemblage of species or may be the habitat of a single unique endemic. Please refer to the stated purposes of the Council as given in Section I Article II of the Constitution. The intent is to establish a regular monitoring sampling program in order to determine long-range trends in the habitat and the status of the fishes. Hopefully, with the geographical spread of the membership we will have coverage of the published (Federal) endangered habitats and species as well as many potentially endangered areas. No doubt many members who teach field classes have some regular collecting sites and a report on these would be in order.

Please devote as much time as you can to compile your documentation. For example, if you say that the crystal darter has been extirpated from a particular river, is this based on two observations, one in 1950 during spawning time and a second observation in 1962 during the middle of the summer or is the statement based on quarterly samples taken over the last five years.

Royal D. Suttikus

*This Is Our First Issue
Of SFC Proceedings...*

This is the first issue of SFC *PROCEEDINGS*, a publication of the Southeastern Fishes Council. With it comes great expectations for the SFC and for the part we can play in its growth and development. Understandably short on member input since this was our first go at putting SFC news on paper, we have, however, tried to establish a format and style that will work within and for our organization.

We solicit your comments as well as news, announcements or features you would like to see included in the *PROCEEDINGS*, and look forward to discussing ideas with you in New Orleans.

For the time being, direct all correspondence to Herb Boschung, who is temporarily serving as editor.

Don't forget...

**SFC Meets
in
New Orleans April 21**