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[View Glo](#)**Notropis sp. 4**

Sawfin Shiner

Other Related Names: *Notropis sp. cf. spectrunculus***Unique Identifier:** ELEMENT_GLOBAL.2.102858**Element Code:** AFCJB28X40**Informal Taxonomy:** Animals, Vertebrates - Fishes - Bony Fishes - Minnows and Carps[Search for Images on Google](#)

Kingdom	Phylum	Class	Order	Family	Genus
Animalia	Craniata	Actinopterygii	Cypriniformes	Cyprinidae	Notropis

Genus Size: D - Medium to large genus (21+ species)Check this box to expand all report sections: **Concept Reference****Concept Reference:**

NatureServe. Unpublished. Concept reference for taxa which have not yet been described; to be used as a placeholder until a citation is available which describes the circumscription of the taxon.

Concept Reference Code: UNDABI01EHUS**Name Used in Concept Reference:** *Notropis sp. 4***Taxonomic Comments:**

Evidently most closely related to NOTROPIS OZARCANUS and N. SPECTRUNCULUS; long confounded with the latter; recognized as an undescribed species in the early 1960s by John S. Ramsey (Jenkins and Burkhead 1994).

Conservation Status**NatureServe Status****Global Status:** G4**Global Status Last Reviewed:** 31Jan2000**Global Status Last Changed:** 31Jan2000**Rounded Global Status:** G4 - Apparently Secure**Reasons:**

Spotty distribution in the upper Tennessee and Cumberland river drainages in Alabama, Tennessee, Virginia, and Kentucky; locally common; stable or of unknown trend in different areas; not very threatened but negatively affected by impoundments and reduced water quality.

Nation: United States**National Status:** N4**U.S. & Canada State/Province Status**

United States	Alabama (S2), Kentucky (S1), Tennessee (S3), Virginia (S3)
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Other Statuses

NatureServe Conservation Status Factors

Global Abundance: 10,000 to >1,000,000 individuals

Global Abundance Comments: Common and abundant throughout most of range (B. Kuhajda, pers. comm., 1997).

Estimated Number of Element Occurrences: 21 - 80

Estimated Number of Element Occurrences Comments: In Kentucky, documented at 7 sites from 3 streams; 0-5 estimated extant occurrences (one record from 1979 in one stream, a second stream is polluted and status is unknown); estimated condition of extant occurrences 50% good and 50% fair; extensively surveyed 1980s-1990s; can be difficult to collect and identify (R. Cicerello, pers. comm., 1997). In Alabama, an estimated 0-5 extant occurrences (J. Godwin, pers. comm., 1997). Boschung and Mayden (in prep., 1997) mapped 16 collection locations from 4 tributaries of the Tennessee River, Alabama. Etnier and Starnes (1993) mapped 82 collection sites in Tennessee from 2 major drainages. Jenkins and Burkhead (1994) mapped approximately 49 collection locations from 4 tributaries of the Tennessee River, Virginia; apparently extirpated from the Middle Fork Holston River, last collected there in 1951. Mettee et al. (1996) mapped 14 collection stations in Alabama; has been collected at all locations since 1985 (S. Mettee, pers. comm., 1997).

Global Short Term Trend:

Stable (unchanged or within +/- 10% fluctuation in population, range, area occupied, and/or number or condition of occurrences)

Global Short Term Trend Comments:

Distributed in 3 streams in Kentucky; collected only once from one stream and a second stream is polluted and status is unknown; possibly stable, status questionable (R. Cicerello, pers. comm., 1997). Not threatened (S. Mettee, pers. comm., 1997). Although, listed as "special concern" in Alabama and "endangered" in Kentucky, common to abundant throughout most of range in Tennessee and southwest Virginia; appears stable, except where impoundments occur (B. Kuhajda, pers. comm., 1997). Trend is unknown (M. Pierson, pers. comm., 1997).

Global Inventory Needs:

Determine abundance and periodically (every 5-10 years) monitor select populations across range to assess trends.

Global Protection: Few (1-3) occurrences appropriately protected and managed*

Global Protection Comments: One adequately protected occurrence in Kentucky (R. Cicerello, pers. comm., 1997).

Degree of Threat: C

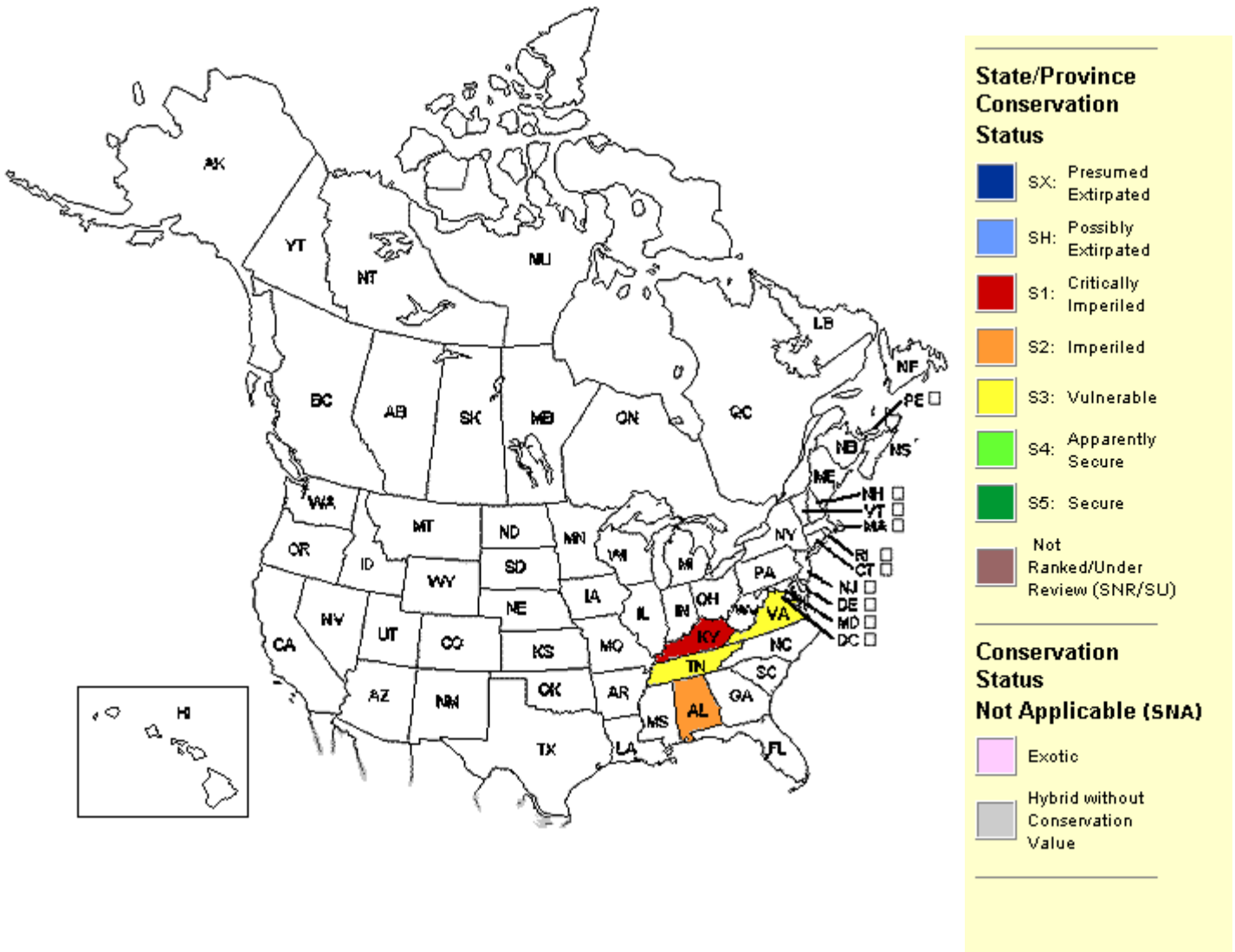
Threats:

Threats include pollution and impoundments that would impede recruitment; notably depressed during the 1950s by pollution in the North Fork Holston River, Virginia; impoundment of the South Holston River, Virginia, may have extirpated any recruitment source for the lower most Middle Fork; has rebounded from heavy pollution and fish kills in the North Fork Holston and Clinch rivers, Virginia (Jenkins and Burkhead 1994). Moderately threatened by pollution (point and nonpoint mining sources) in Kentucky (R. Cicerello, pers. comm., 1997). Not currently threatened in Alabama; agriculture or silviculture practices could be a problem (S. Mettee, pers. comm., 1997). Threats are low, due to presence in so many small to moderate sized streams and rivers (B. Kuhajda, pers. comm., 1997). Any increases in silt loads could threaten populations (M. Pierson, pers. comm., 1997).

Distribution

U.S. States and Canadian Provinces





Endemism: endemic to a single nation

U.S. & Canada State/Province Distribution	
United States	AL, KY, TN, VA

Range Map

No map available.

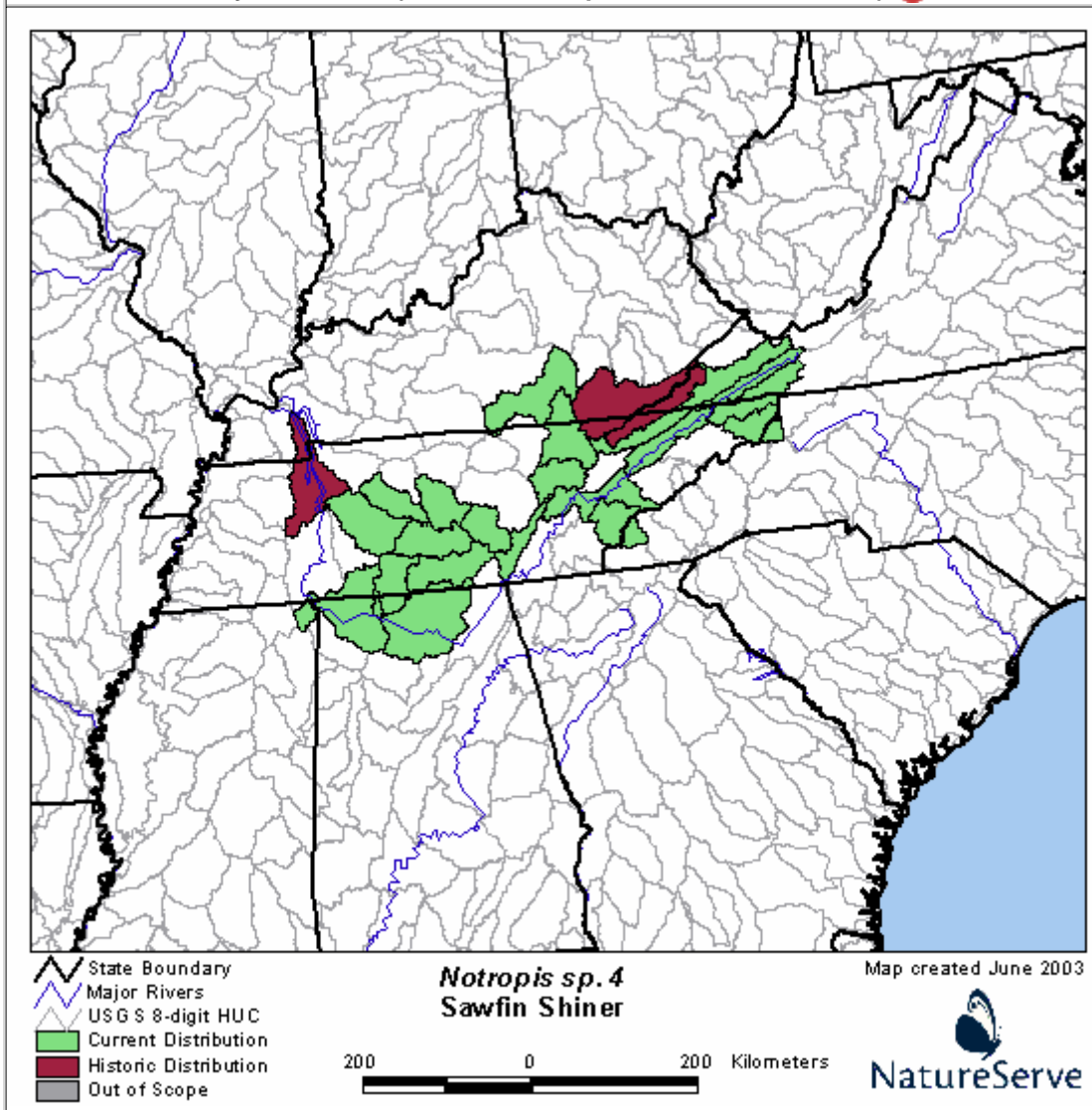
Global Range Comments:

Patchily distributed in uplands and intermontane valleys of the upper and middle Cumberland River drainage, Kentucky and Tennessee; Tennessee River drainage, Virginia, Tennessee, and Alabama (Page and Burr 1991, Etnier and Starnes 1993, Jenkins and Burkhead 1994). Tennessee: sporadic but locally common in the Highland Rim and Ridge and Valley (Etnier and Starnes 1993). Virginia: more or less contiguously distributed and often common (occasionally abundant) in the medium to wide sections of the North Fork Holston, Clinch, and Powell rivers, stably populates lower Copper Creek and the lower Little River (Clinch system), occasionally found in lower sections of small tributaries; evidently no longer occurs in the Middle Fork Holston River (Jenkins and Burkhead 1994).

U.S. Distribution by County (based on available natural heritage records) ?	
State	County Name (FIPS Code)
AL	Lauderdale (01077)
KY	McCreary (21147), Pulaski (21199), Wayne (21231)
TN	Lawrence (47099)

U.S. Distribution by Watershed (based on available natural heritage records) ?

Watershed Region ?	Watershed Name (Watershed Code)
05	Upper Cumberland-Lake Cumberland (05130103), South Fork Cumberland (05130104)
06	Pickwick Lake (06030005)

U.S. Distribution by Watershed (based on multiple information sources) ?**Ecology & Life History** ?

Basic Description: A small fish (minnow).

General Description: See Etnier and Starnes (1993) and Jenkins and Burkhead (1994).

Reproduction Comments:

Spawns probably from mid-May to at least early July in the upper Tennessee (Jenkins and Burkhead 1994).

Ecology Comments

Sometimes forms moderate-sized schools (Jenkins and Burkhead 1994).

Habitat Type: Freshwater

Non-Migrant: Y

Locally Migrant: N

Long Distance Migrant: N

Riverine Habitat(s): CREEK, MEDIUM RIVER, Moderate gradient, Pool

Special Habitat Factors: Benthic

Habitat Comments:

Typically in warm, usually clear, well-moving pools, backwaters, and gentle to moderate runs of creeks and small to medium rivers of moderate gradient; commonly associated with clean gravel and rubble as well as somewhat silted substrates (Page and Burr 1991, Jenkins and Burkhead 1994).

Adult Food Habits: Invertivore

Immature Food Habits: Invertivore

Food Comments:

Diet includes immature aquatic insects such as midges, caddisflies, mayflies, and beetles; feeds on the bottom and in midwater (Jenkins and Burkhead 1994).

Length: 6 centimeters

Economic Attributes



Management Summary



Population/Occurrence Delineation



Group Name: SMALL CYPRINIDS

Use Class: Not applicable

Minimum Criteria for an Occurrence:

Occurrences are based on evidence of historical presence, or current and likely recurring presence, at a given location. Such evidence minimally includes collection or reliable observation and documentation of one or more individuals (including eggs and larvae) in appropriate habitat.

Separation Barriers:

Dam lacking a suitable fishway; high waterfall; upland habitat. For some species (e.g., slender chub), an impoundment may constitute a barrier. For others (e.g., flame chub) a stream larger than 4th order may be a barrier.

Separation Distance for Unsuitable Habitat: 10 km

Separation Distance for Suitable Habitat: 10 km

Separation Justification:

Data on dispersal and other movements generally are not available. In some species, individuals may migrate variable distances between spawning areas and nonspawning habitats.

Separation distances (in aquatic kilometers) for cyprinids are arbitrary but reflect the presumption that movements and appropriate separation distances generally should increase with fish size. Hence small, medium, and large cyprinids, respectively, have increasingly large separation distances. Separation distance reflects the likely low probability that two occupied locations separated by less than several kilometers of aquatic habitat would represent truly independent populations over the long term.

Because of the difficulty in defining suitable versus unsuitable habitat, especially with respect to dispersal, and to simplify the delineation of occurrences, a single separation distance is used regardless of habitat quality.

Occupied locations that are separated by a gap of 10 km or more of any aquatic habitat that is not known to be occupied represent different occurrences. However, it is important to evaluate seasonal changes in habitat to ensure that an occupied habitat occurrence for a particular population does not artificially separate spawning areas and nonspawning areas as different occurrences simply because there have been no collections/observations in an intervening area that may exceed the separation distance.

Date: 21Sep2004

Author: Hammerson, G.

Population/Occurrence Viability 

U.S. Invasive Species Impact Rank (I-Rank) 

Authors/Contributors 

NatureServe Conservation Status Factors Edition Date: 31Jan2000

NatureServe Conservation Status Factors Author: Hammerson, G., and M. K. Clausen

Element Ecology & Life History Edition Date: 21Dec1995

Element Ecology & Life History Author(s): Hammerson, G.

Zoological data developed by NatureServe and its network of natural heritage programs (see [Local Programs](#)) and other contributors and cooperators (see [Sources](#)).

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Note:All species and ecological community data presented in NatureServe Explorer at <http://www.natureserve.org/explorer> were updated to be current with NatureServe's central databases as of **Feb 1, 2008**. Ecological system data updated as of **Jun 6, 2008**.

Note: This report was printed on **August 18, 2008**

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Citation for data on website including Watershed and State Distribution maps:

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Citation for Bird Range Maps of North America:

Ridgely, R.S., T.F. Allnutt, T. Brooks, D.K. McNicol, D.W. Mehlman, B.E. Young, and J.R. Zook. 2003. Digital Distribution Maps of the Birds of the Western Hemisphere, version 1.0. NatureServe, Arlington, Virginia, USA.

Acknowledgement Statement for Bird Range Maps of North America:

"Data provided by NatureServe in collaboration with Robert Ridgely, James Zook, The Nature Conservancy - Migratory Bird Program, Conservation International - CABS, World Wildlife Fund - US, and Environment Canada - WILDSPACE."

Citation for Mammal Range Maps of North America:

Patterson, B.D., G. Ceballos, W. Sechrest, M.F. Tognelli, T. Brooks, L. Luna, P. Ortega, I. Salazar, and B.E. Young. 2003. Digital Distribution Maps of the Mammals of the Western Hemisphere, version 1.0. NatureServe, Arlington, Virginia, USA.

Acknowledgement Statement for Mammal Range Maps of North America:

"Data provided by NatureServe in collaboration with Bruce Patterson, Wes Sechrest, Marcelo Tognelli, Gerardo Ceballos, The Nature Conservancy-Migratory Bird Program, Conservation International-CABS, World Wildlife Fund-US, and Environment Canada-WILDSPACE."

NOTE: Full metadata for the Bird Range Maps of North America is available at:

<http://www.natureserve.org/library/birdDistributionmapsmetadatav1.pdf>.

Full metadata for the Mammal Range Maps of North America is available at:

<http://www.natureserve.org/library/mammalsDistributionmetadatav1.pdf>.

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