

Summary

Conservation Status

Distribution

Image

Comprehensive

New Search

**Comprehensive Report:** Record 1 of 1 selected.

<< Previous | Next >>

[See All Search Results](#) [View Glossary](#)**Fundulus catenatus** - (Storer, 1846)

Northern Studfish

Unique Identifier: AFCNB04020

Informal Taxonomy: Animals, Vertebrates - Fishes

- Bony Fishes - Other Bony Fishes



© Noel Burkhead & Virginia Dept of Game and Inland Fisheries (Fishes of Virginia)

Kingdom	Phylum	Class	Order	Family	Genus
Animalia	Craniata	Actinopterygii	Cyprinodontiformes	Fundulidae	Fundulus

Genus Size: D - Medium to large genus (21+ species)**Concept Reference:** Robins, C. R., et al. 1991. Common and scientific names of fishes from the United States and Canada. American Fisheries Society, Special Publishing 20. 183 pp.**Concept Reference Code:** B91ROB01NAUS**Name Used in Concept Reference:** *Fundulus catenatus*

Taxonomic Comments: F. STELLIFER is the sister group of F. CATENATUS-F. BIFAX, the latter two of which are sister species (Rogers and Cashner 1987, Cashner et al. 1992). See Grady et al. (1990) and Rogers and Cashner (1987) for information on evolutionary and biogeographic relationships among populations throughout range (some populations are electrophoretically distinctive). See Rogers and Cashner (1987) for a phylogenetic analysis of the subgenus XENISMA. The genus FUNDULUS was removed from Atheriniformes: Cyprinodontidae and placed in Cyprinodontiformes: Fundulidae by Parenti (1981); pending confirmation based on other character suites, this change was not accepted in the 1991 AFS checklist (Robins et al. 1991). See Wiley (1986) for a study of the evolutionary relationships of FUNDULUS topminnows based on morphological characters. See Cashner et al. (1992) for an allozyme-based phylogenetic analysis of the genus FUNDULUS.

Conservation Status**NatureServe Status****Global Status:** G5**Global Status Last Reviewed:** 20Sep1996**Global Status Last Changed:** 20Sep1996**Rounded Global Status:** G5**Nation:** United States**National Status:**

N5

U.S. & Canada State/Province Status

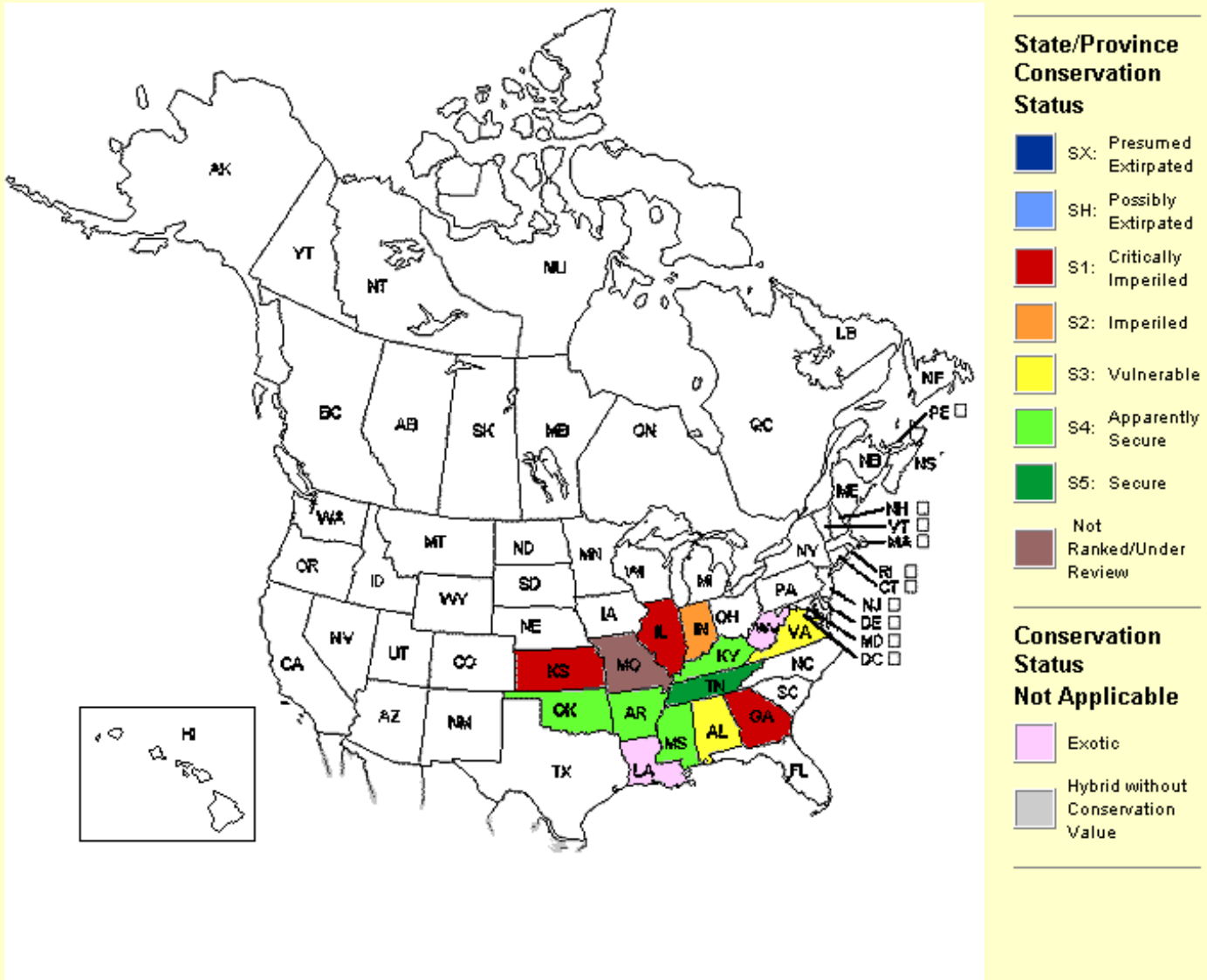
United States	Alabama (S3S4), Arkansas (S4), Georgia (S1), Illinois (S1?), Indiana (S2), Kansas (S1), Kentucky (S4S5), Louisiana (SNA), Mississippi (S4), Missouri (SNR), Oklahoma (S4), Tennessee (S5), Virginia (S3), West Virginia (SNA)
---------------	---

Other Statuses

NatureServe Conservation Status Factors

Distribution

U.S. States and Canadian Provinces



Endemism: endemic to a single nation

U.S. & Canada State/Province Distribution

United States	AL, AR, GA, IL, IN, KS, KY, LA, MO, MS, OK, TN, VA, WV
---------------	--

Range Map

No map available.

Global Range Comments: Upper East Fork White River system, Indiana; upper Salt and Kentucky river drainages, Kentucky; upper Green, middle and lower Cumberland, and Tennessee river drainages, Virginia, Kentucky, Tennessee,

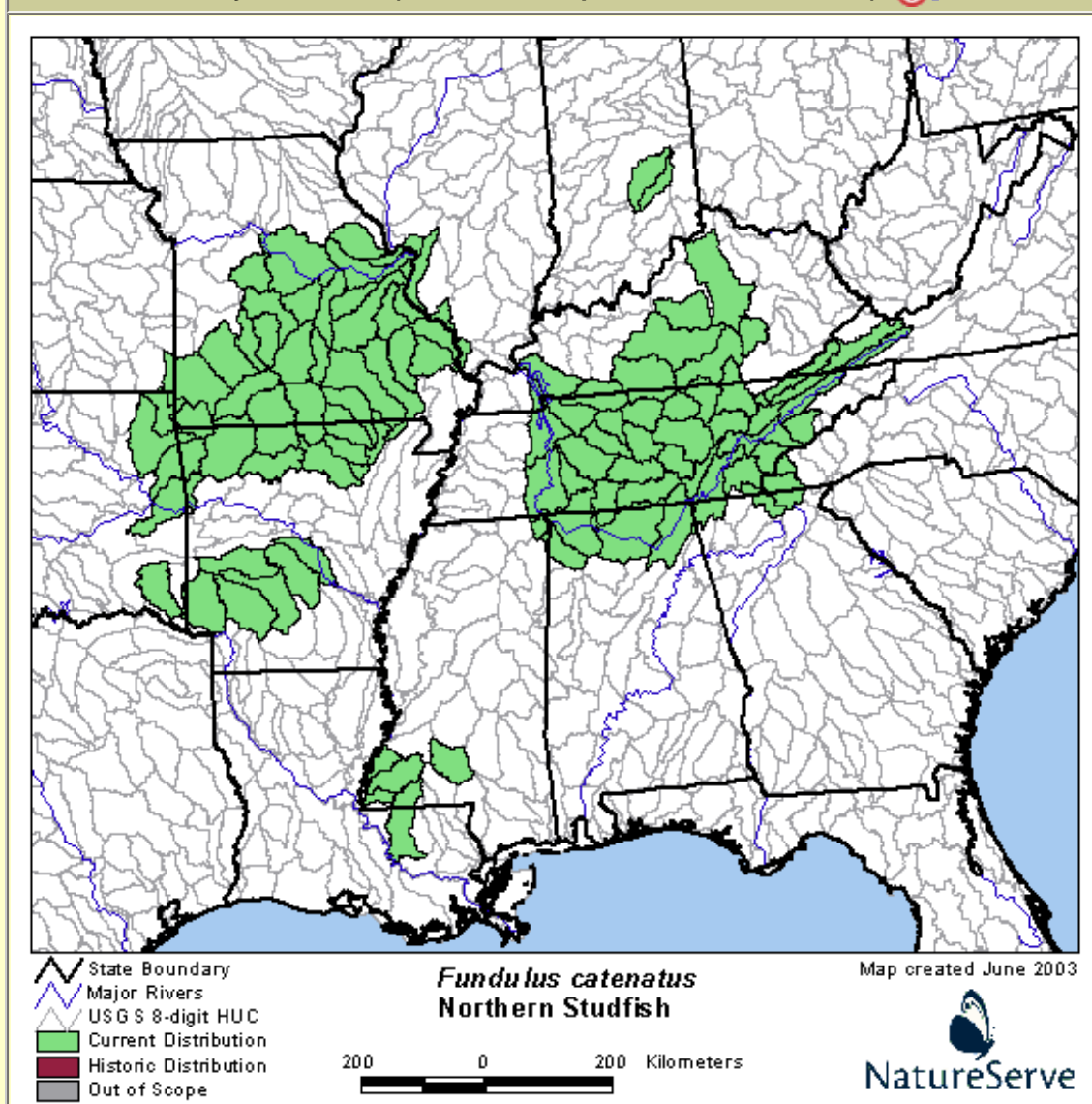
and Alabama; west of Mississippi River, primarily in Ozark and Ouachita uplands, in central and southern Missouri, southeastern Kansas, eastern Oklahoma, and southern Arkansas; southwestern Mississippi in Mississippi (Coles Creek, Homochitto River, and Buffalo Bayou) and Gulf Slope drainages (Amite River and Pearl River); common (Page and Burr 1991).

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

State	County Name (FIPS Code)
IN	Bartholomew (18005), Jennings (18079), Johnson (18081), Shelby (18145)

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

Watershed Region ?	Watershed Name (Watershed Code)
05	Driftwood (05120204), Flatrock-Haw (05120205), Muscatatuck (05120207)

U.S. Distribution by Watershed (based on multiple information sources) ?

Economic Attributes

Management Summary

Ecology & Life History

Reproduction Comments: Spawns mid-May to early August. No nest prepared, but males establish and defend small territories.

Habitat Type: Freshwater

Non-Migrant: N

Locally Migrant: N

Long Distance Migrant: N

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

Habitat Comments: Margins, pools, and backwaters of creeks and small rivers with moderate to high gradients, permanent flow of clear water, and bottoms usually of sand, gravel, rock, and occasionally an admixture of silt; most common in shallow sandy backwaters adjacent to clear gravelly creeks. Males establish and defend small territories in shallow quiet-water spawning areas.

Adult Food Habits: Invertivore

Immature Food Habits: Invertivore

Food Comments: Bottom feeder; eats mainly insects and some molluscs.

Length: 18 centimeters

Population/Occurrence Delineation

Group Name: KILLIFISHES (CYPRINODONTIDS)

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.

Alternate Separation Procedure: Each spring system that is undivided by a barrier constitutes a single distinct occurrence. Otherwise, use a separation distance of 10 km for any type of aquatic habitat.

Separation Justification: Separation distance is arbitrary. 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.

Date: 21Sep2004

Author: Hammerson, G.

Population/Occurrence Viability

Authors/Contributors

Element Ecology & Life History Edition Date: 06Oct1993
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](#)).

References

- Cashner, R. C., J. S. Rogers, and J. M. Grady. 1992. Phylogenetic studies of the genus FUNDULUS. Pages 421-437 in R. L. Mayden, editor. Systematics, historical ecology, and North American freshwater fishes. Stanford Univ. Press, Stanford, California. xxvi + 969 pp.
- Etnier, David A. and Wayne C. Starnes. 1993. The Fishes of Tennessee. University of Tennessee Press, Knoxville. 681 pp.
- Grady, J. M., R. C. Cashner, and J. S. Rogers. 1990. Evolutionary and biogeographic relationships of FUNDULUS CATENATUS (Fundulidae). Copeia 1990:315-323.
- Huver, C. W. 1973. A bibliography of the genus FUNDULUS. G. K. Hall and Company, Boston. v + 138 pp.
- Lee, D. S., C. R. Gilbert, C. H. Hocutt, R. E. Jenkins, D. E. McAllister, and J. R. Stauffer, Jr. 1980. Atlas of North American Freshwater Fishes. North Carolina State Museum of Natural History. 867 pp.
- Matthews, W. J., and D. C. Heins, editors. 1987. Community and evolutionary ecology of North American stream fishes. Univ. Oklahoma Press, Norman. viii + 310 pp.
- Page, L. M., and B. M. Burr. 1991. A field guide to freshwater fishes: North America north of Mexico. Houghton Mifflin Company, Boston, Massachusetts. 432 pp.
- Parenti, L. R. 1981. A phylogenetic and biogeographic analysis of cyprinodontiform fishes (Teleostei, Atherinomorpha). Bulletin of the American Museum Natural History 168:335-557.
- ROSS, STEPHEN T. 1996. INLAND FISHES OF MISSISSIPPI. SELECTED SPECIES ACCOUNTS. COAUTHORED WITH W. M. BRENNEMAM, W.T. SLACK, M.T. O'CONNELL, AND T.L. PETERSON. ILLUSTRATED BY D.G. ROSS. DRAFT COPY.
- Robins, C. R., et al. 1991. Common and scientific names of fishes from the United States and Canada. American Fisheries Society, Special Publishing 20. 183 pp.
- Rogers, J. S., and R. C. Cashner. 1987. Genetic variation, divergence, and relationships in the subgenus XENISMA of the genus FUNDULUS. Pages 251-264 in B87MAT01NA.
- Smith, P. W. 1979. The fishes of Illinois. Univ. Illinois Press, Urbana. 314 pp.
- Wiley, E. O. 1986. A study of the evolutionary relationships of FUNDULUS topminnows (Teleostei: Fundulidae). American Zoologist 26:121-130.

The Small Print: Trademark, Copyright, Citation Guidelines, Restrictions on Use, and Information Disclaimer.

Note: Data presented in NatureServe Explorer at <http://www.natureserve.org/explorer> were updated to be current with NatureServe's central databases as of **February 2005**.

Note: This report was printed on **May 18, 2005**.

Trademark Notice: "NatureServe", NatureServe, NatureServe Explorer, The NatureServe logo, and all other names of NatureServe programs referenced herein are trademarks of NatureServe. Any other product or company names mentioned herein are the trademarks of their respective owners.

Copyright Notice: Copyright © 2005 NatureServe, 1101 Wilson Boulevard, 15th Floor, Arlington Virginia 22209, U.S.A. All Rights Reserved. Each document delivered from this server or web site may contain other proprietary notices and copyright information relating to that document. The following citation should be used in any published materials which reference the web site.

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

NatureServe. 2005. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.4. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: May 18, 2005).

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>.

Restrictions on Use: Permission to use, copy and distribute documents delivered from this server is hereby granted under the following conditions:

1. The above copyright notice must appear in all copies;
2. Any use of the documents available from this server must be for informational purposes only and in no instance for commercial purposes;
3. Some data may be downloaded to files and altered in format for analytical purposes, however the data should still be referenced using the citation above;
4. No graphics available from this server can be used, copied or distributed separate from the accompanying text. Any rights not expressly granted herein are reserved by NatureServe. Nothing contained herein shall be construed as conferring by implication, estoppel, or otherwise any license or right under any trademark of NatureServe. No trademark owned by NatureServe may be used in advertising or promotion pertaining to the distribution of documents delivered from this server without specific advance permission from NatureServe. Except as expressly provided above, nothing contained herein shall be construed as conferring any license or right under any NatureServe copyright.

Information Warranty Disclaimer: All documents and related graphics provided by this server and any other documents which are referenced by or linked to this server are provided "as is" without warranty as to the currentness, completeness, or accuracy of any specific data. NatureServe hereby disclaims all warranties and conditions with regard to any documents provided by this server or any other documents which are referenced by or linked to this server, including but not limited to all implied warranties and conditions of merchantability, fitness for a particular purpose, and non-infringement. NatureServe makes no representations about the suitability of the information delivered from this server or any other documents that are referenced to or linked to this server. In no event shall NatureServe be liable for any special, indirect, incidental, consequential damages, or for damages of any kind arising out of or in connection with the use or performance of information contained in any documents provided by this server or in any other documents which are referenced by or linked to this server, under any theory of liability used. NatureServe may update or make changes to the documents provided by this server at any time without notice; however, NatureServe makes no commitment to update the information contained herein. Since the data in the central databases are continually being updated, it is advisable to refresh data retrieved at least once a year after its receipt. The data provided is for planning, assessment, and informational purposes. Site specific projects or activities should be reviewed for potential environmental impacts with appropriate regulatory agencies. If ground-disturbing activities are proposed on a site, the appropriate state natural heritage program(s) or conservation data center can be contacted for a site-specific review of the project area (see [Visit Local Programs](#)).

Feedback Request: NatureServe encourages users to let us know of any errors or significant omissions that you find in the data through (see [Contact Us](#)). Your comments will be very valuable in improving the overall quality of our databases for the benefit of all users.

