

Summary

Conservation Status

Distribution

Image

Comprehensive

New Search



Comprehensive Report: Record 1 of 1 selected.

<< Previous | Next >>

[See All Search Results](#) [View Glossary](#)

Cyprinella spiloptera - (Cope, 1867)

Spotfin Shiner

Other Related Names: *Notropis*

spilopterus (Cope, 1867)

Unique Identifier: AFCJB49190

Informal Taxonomy: Animals, Vertebrates - Fishes

- Bony Fishes - Minnows and Carps



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

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

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: *Cyprinella spiloptera*

Taxonomic Comments: Removed from genus NOTROPIS and placed in genus (formerly subgenus) CYPRINELLA by Mayden (1989); this change was adopted in the 1991 AFS checklist (Robins et al. 1991). Geographic variation was summarized by Schaefer and Cavender (1986), who rejected the two subspecies recognized by Gibbs (1957). Hybridization with the red shiner (C. LUTRENSIS) in Illinois resulted in a rapid dilution of the SPILOPTERA gene pool (Page and Smith 1970).

Conservation Status

NatureServe Status

Global Status: G5

Global Status Last Reviewed: 18Sep1996

Global Status Last Changed: 18Sep1996

Rounded Global Status: G5

Nation: United States

National Status:

N5

Nation: Canada

National Status:

N4N5

U.S. & Canada State/Province Status

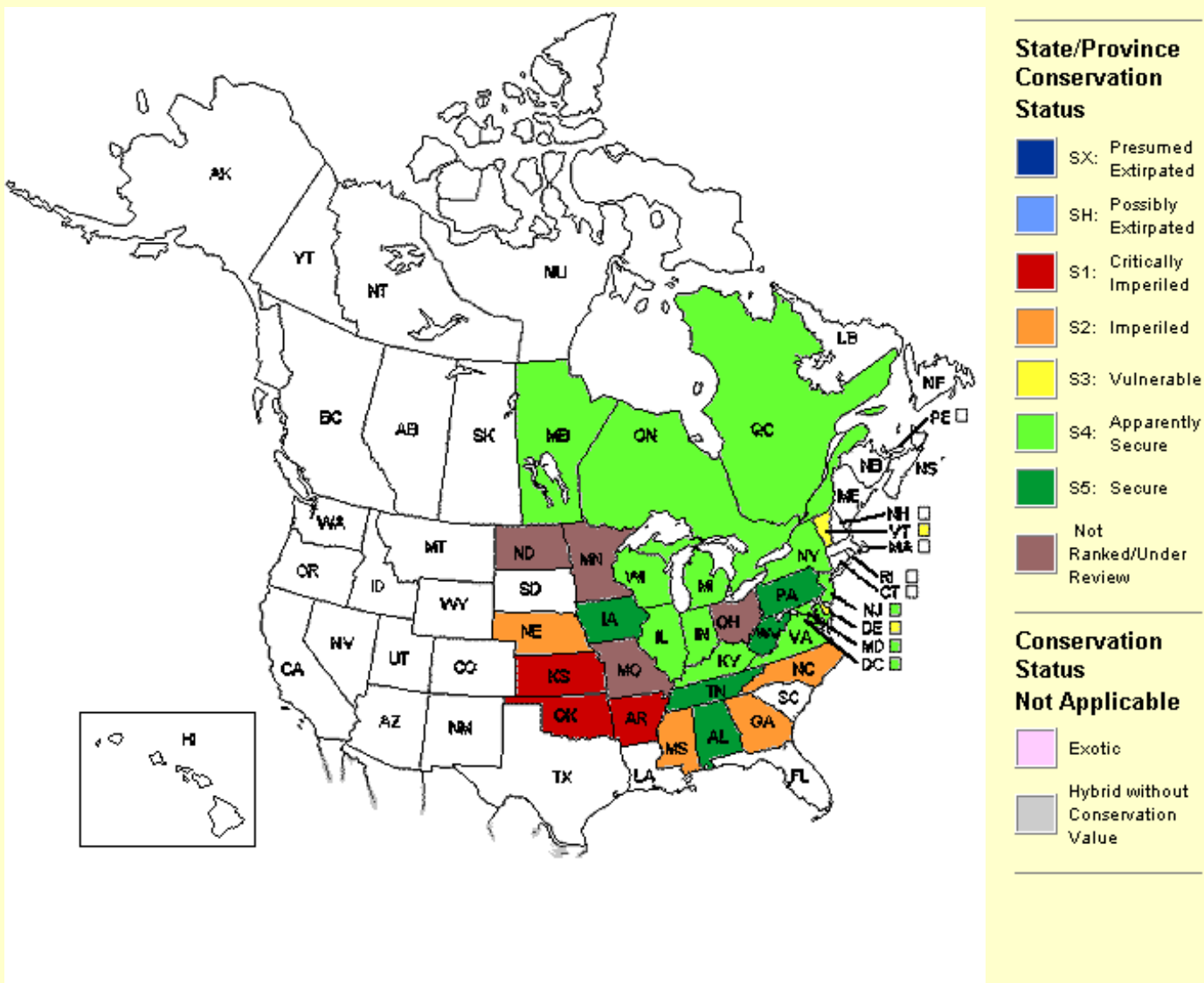
United States	Alabama (S5), Arkansas (S1), Delaware (S3), District of Columbia (S4), Georgia (S2), Illinois (S4), Indiana (S4), Iowa (S5), Kansas (S1), Kentucky (S4S5), Maryland (S4), Michigan (S4), Minnesota (SNR), Mississippi (S2), Missouri (SNR), Nebraska (S2S3), New Jersey (S4), New York (S4), North Carolina (S2S3), North Dakota (SNR), Ohio (SNR), Oklahoma (S1), Pennsylvania (S5), Tennessee (S5), Vermont (S3S4), Virginia (S4), West Virginia (S5), Wisconsin (S4)
Canada	Manitoba (S4), Ontario (S4), Quebec (S4)

Other Statuses

NatureServe Conservation Status Factors

Distribution

U.S. States and Canadian Provinces



Endemism: occurs (regularly, as a native taxon) in multiple nations

U.S. & Canada State/Province Distribution
--

United States	AL, AR, DC, DE, GA, IA, IL, IN, KS, KY, MD, MI, MN, MO, MS, NC, ND, NE, NJ, NY, OH, OK, PA, TN, VA, VT, WI, WV
Canada	MB, ON, QC

Range Map

No map available.

Global Range Comments: Atlantic Slope from Middle St. Lawrence River drainage in Quebec to the Potomac River drainage, Virginia; Great Lakes (except Lake Superior), Hudson Bay (red River), and Mississippi River basins from Ontario and New York south to eastern Oklahoma, and northern Alabama; spotty distribution in southwestern part of range (Ozark region) (Page and Burr 1991).

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

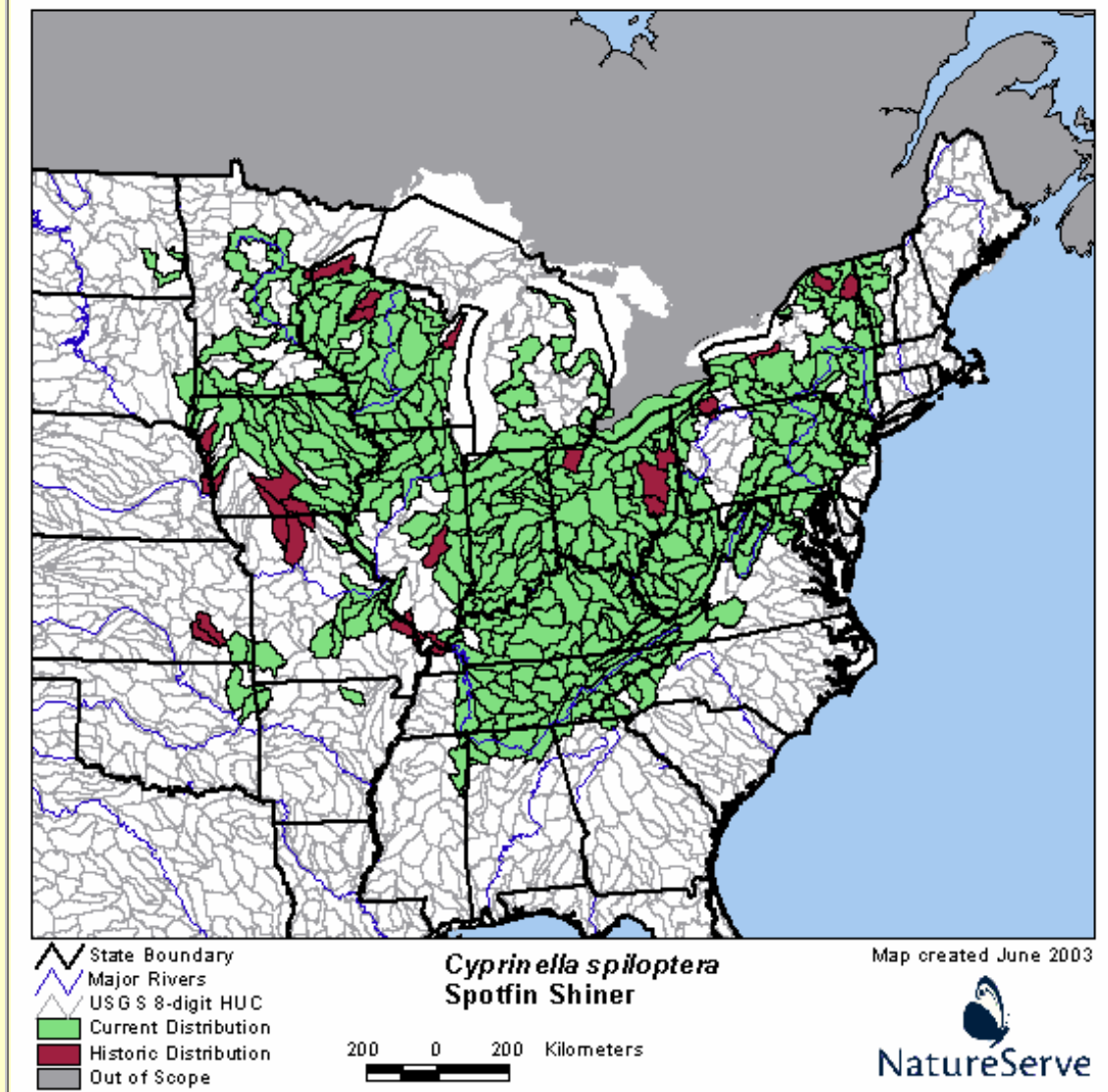
State	County Name (FIPS Code)
AR	Izard (05065), Van Buren (05141)
GA	Catoosa (13047), Dade (13083)
KS	Cherokee (20021)
MS	Tishomingo (28141)

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

Watershed Region ? -	Watershed Name (Watershed Code)
06	Middle Tennessee-Chickamauga (06020001), Pickwick Lake (06030005), Bear (06030006)
11	Strawberry (11010012), Little Red (11010014), Spring (11070207)

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

Watershed Region ? -	Watershed Name (Watershed Code)



Economic Attributes

Management Summary

Ecology & Life History

Reproduction Comments: Spawns in late spring and summer. Eggs hatch in about 5 days. Both sexes sexually mature at age 1 but may not spawn until age 2 (Becker 1983). Most live only 2+ years; some reach 5 years. Produces sounds that may function in spawning activity and/or species recognition.

Habitat Type: Freshwater

Non-Migrant: N

Locally Migrant: N

Long Distance Migrant: N

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

Lacustrine Habitat(s): Deep water, Shallow water

Special Habitat Factors: Benthic

Habitat Comments: Moderate to large streams and rivers of low to high turbidity, with bottom of sand, gravel, mud or rubble (Lee et al. 1980). Sometimes also in lakes and sloughs (Becker 1983). Most frequently in large creeks and small rivers with clear permanent flow; not typically in larger turbid rivers or intermittent creeks; usually in or near riffles or raceways over gravel in moderate to fast current (Mayden 1989). Spawns in rock crevices, on logs having loose bark or crevices, or on underside of submerged logs or roots (Becker 1983, Scott and Crossman 1973), near riffles in swift current (Mayden 1989).

Adult Food Habits: Invertivore

Immature Food Habits: Invertivore

Food Comments: Eats mainly insects, both aquatic and terrestrial (Becker 1983); plants material and fishes also recorded in diet (Mayden 1989).

Phenology Comments: Most feeding activity occurs shortly before dusk and probably shortly after dawn (Mayden 1989).

Length: 11 centimeters

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

Authors/Contributors

Element Ecology & Life History Edition Date: 06May1993

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

- Becker, G. C. 1983. Fishes of Wisconsin. Univ. Wisconsin Press, Madison. 1052 pp.
- Etnier, David A. and Wayne C. Starnes. 1993. The Fishes of Tennessee. University of Tennessee Press, Knoxville. 681 pp.
- GEORGE, C.J. 1980. THE FISHES OF THE ADIRONDACK PARK. NYS DEPT. ENVIRON. CONSERV. ALBANY, NY 94 PP.
- Gale, W.F. and C.A. Gale. 1977. Spawning habits of spotfin shiner, NOTROPIS SPILOPTERUS--a fractional, crevice spawner. Trans. Am. Fish. Soc. 106(2): 170-177.
- Gibbs, R. H. Jr. 1957b. Cyprinid fishes of the subgenus CYPRINELLA of NOTROPIS II. Distribution and variation of NOTROPIS SPILOPTERUS, with the description of a new sub- species. Lloydia 20(3):186-211.
- 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.
- Mayden, R. L. 1989. Phylogenetic studies of North American minnows, with emphasis on the genus CYPRINELLA (Teleostei: Cypriniformes). Univ. Kansas Museum Natural History Miscellaneous Publication (80):1-189.
- 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.
- Page, L. M., and R. L. Smith. 1970. Recent range adjustments and hybridization of NOTROPIS LUTRENSIS and NOTROPIS SPILOPTERUS in Illinois. Trans. Illinois State Acad. Sci. 63:264-272.
- ROBISON, H.W. AND T.M. BUCHANAN. 1988. FISHES OF ARKANSAS. UNIVERSITY OF ARKANSAS PRESS, FAYETTEVILLE, ARKANSAS.
- 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.
- Schaefer, S. A., and T. M. Cavender. 1986. Geographic variation and subspecific status of NOTROPIS SPILOPTERUS (Pisces: Cyprinidae). Copeia 1986:122-140.
- Scott, W. B., and E. J. Crossman. 1973. Freshwater fishes of Canada. Fisheries Res. Bd. Canada, Bull. 184. 966 pp.
- Scott, W.B. and E.J. Crossman. 1979. Freshwater Fishes of Canada. Fisheries Research Board of Canada, Ottawa. 966 pp.
- Smith, C.L. 1985. The Inland Fishes of New York State. New York State Department of Environmental Conservation. Albany, NY. 522pp.
- Smith, P. W. 1979. The fishes of Illinois. Univ. Illinois Press, Urbana. 314 pp.
- Stone, U. B. 1940. Studies on the biology of the satinfin minnows, NOTROPIS ANALOSTANUS and NOTROPIS SPILOPTERUS. Cornell Univ., Ithaca. PhD Thesis. 98 pp. + vii + 14 pls.
- WERNER, R.G. 1980. FRESHWATER FISHES OF NEW YORK STATE. N.Y.: SYRACUSE UNIV. PRESS. 186 PP.

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.



© 2005
NatureServe

Version 4.4 (07 April 2005)
Data last updated: February 2005