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***Notropis atherinoides*** - Rafinesque, 1818

Emerald Shiner

**Unique Identifier:** ELEMENT\_GLOBAL.2.100819

**Element Code:** AFCJB28120

**Informal Taxonomy:** Animals, Vertebrates - Fishes - Bony Fishes - Minnows and Carps

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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:**

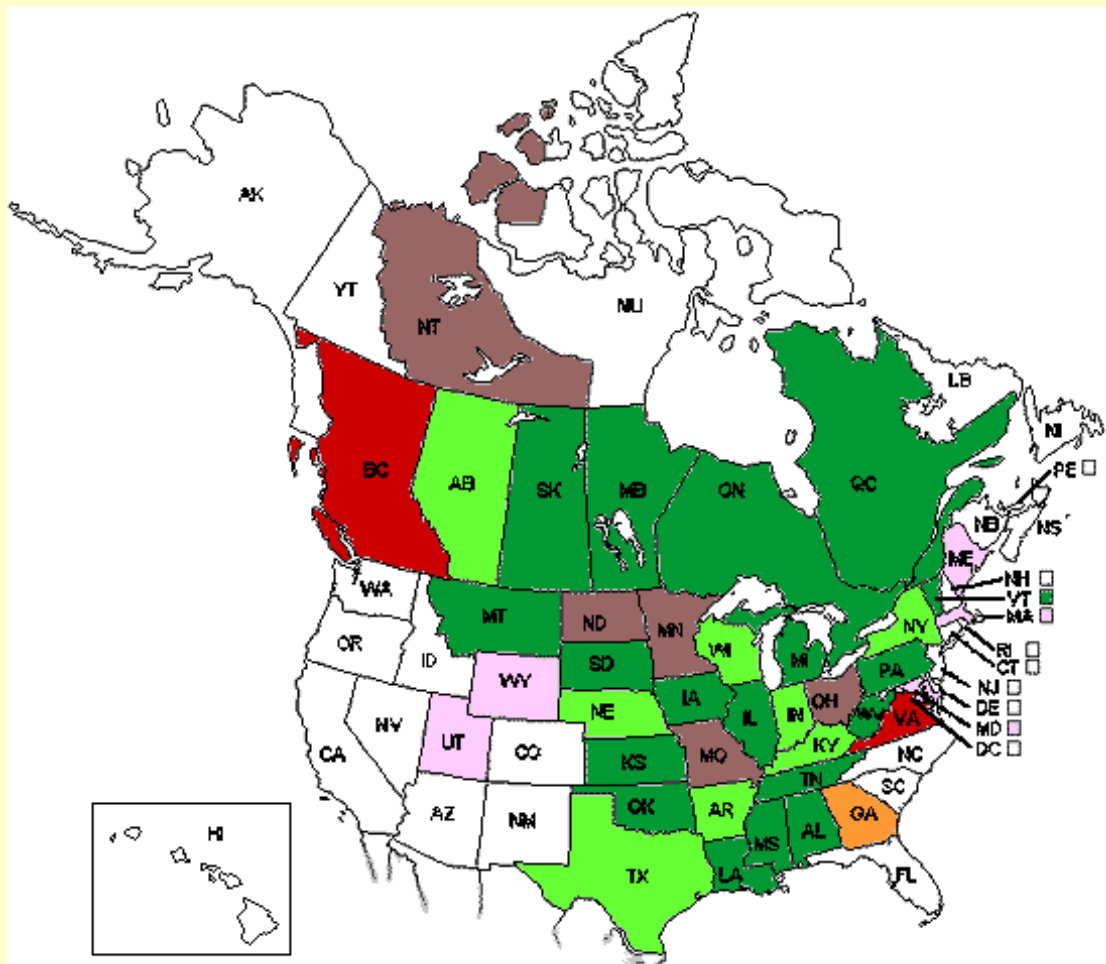
Concept Reference

Conservation Status





## U.S. States and Canadian Provinces



### State/Province Conservation Status

- SX: Presumed Extirpated
- SH: Possibly Extirpated
- S1: Critically Imperiled
- S2: Imperiled
- S3: Vulnerable
- S4: Apparently Secure
- S5: Secure
- Not Ranked/Under Review (SNR/SU)

### Conservation Status Not Applicable (SNA)

- Exotic
- Hybrid without Conservation Value

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

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

United States AL, AR, GA, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, ND, NE, NY, OH, OK, PA, SD, TN, TX, UT, VA, VT, WI, WV, WY

Canada AB, BC, MB, NT, ON, QC, SK

### Range Map

No map available.

**Global Range Comments:** Has one of the largest ranges of all North American minnows. Gulf Slope drainages from Galveston Bay, Texas, to Mobile Bay, Alabama, St. Lawrence drainage, Quebec, and Hudson River drainage, New York, to Mackenzie River drainage (Arctic basin), Northwest Territories, and south through Great Lakes and Mississippi River basin to the Gulf; common, probably the most abundant fish in the Mississippi and other large rivers (Page and Burr 1991).

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

#### State County Name (FIPS Code)

GA Catoosa (13047), Dade (13083), Floyd (13115), Gordon (13129), Murray (13213)

VA Scott (51169)

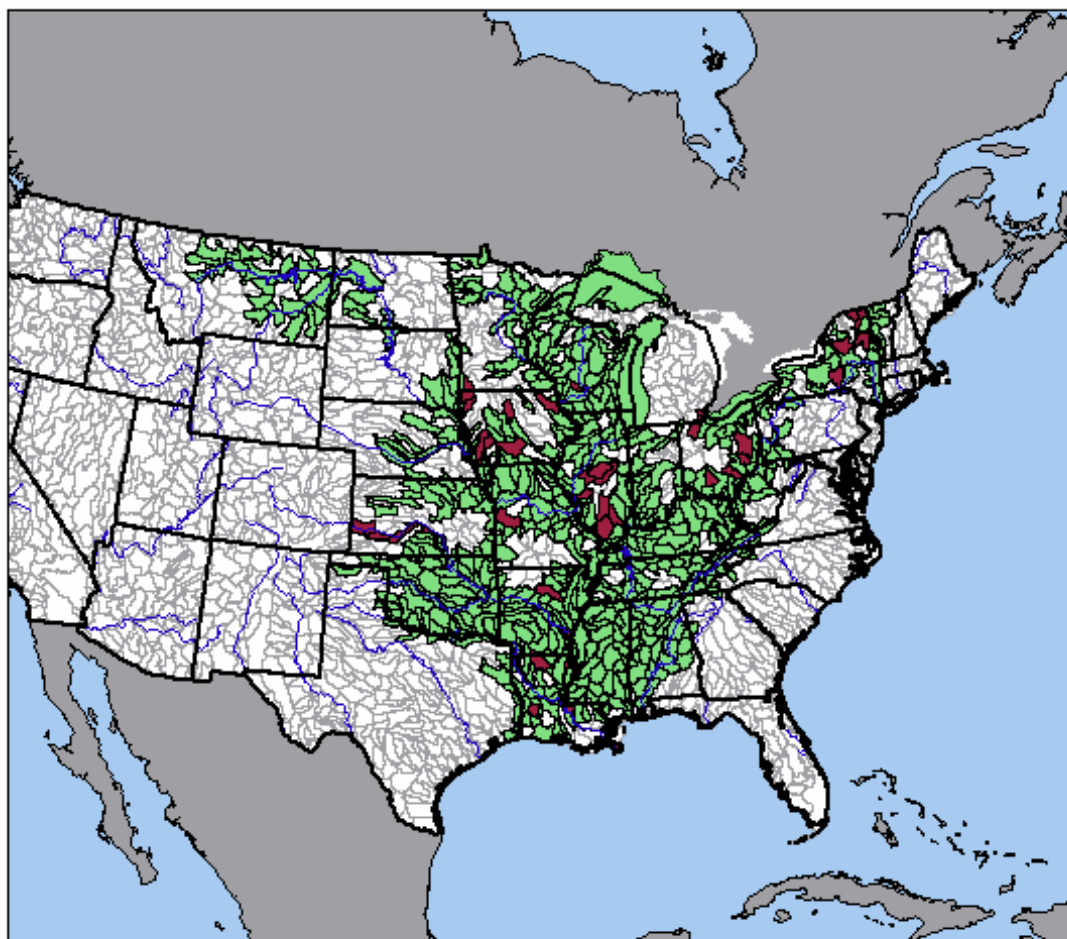
### U.S. Distribution by Watershed (based on available natural heritage records) ?

#### Watershed Region ? Watershed Name (Watershed Code)

03 Conasauga (03150101), Oostanaula (03150103), Etowah (03150104)

06 Upper Clinch (06010205), Middle Tennessee-Chickamauga (06020001)

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

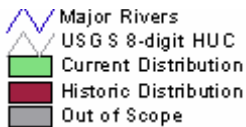


State Boundary  
Major Rivers  
USGS 8-digit HUC

*Notropis atherinoides*  
Emerald Shiner

Map created June 2003





## Emerald Shiner

200 0 200 Kilometers



### Ecology & Life History

**Reproduction Comments:** Spawns in late spring and summer, when water temperatures reach about 20-23 C (Burkhead and Jenkins 1991). In the north, spawning begins as early as late May, peaks in June-July, sometimes continues into early August (Burkhead and Jenkins 1991). Eggs hatch in about a day. Most first spawn in their second year. Rarely lives beyond 3 years. Millions may gather in breeding schools (Burkhead and Jenkins 1991).

### Ecology Comments

Important forage fish. A schooling species. Fry may gather in enormous schools.

**Habitat Type:** Freshwater

**Non-Migrant:** N

**Locally Migrant:** N

**Long Distance Migrant:** N

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**Riverine Habitat(s):** BIG RIVER, Low gradient, MEDIUM RIVER, Moderate gradient, Pool

**Lacustrine Habitat(s):** Deep water, Shallow water

**Habitat Comments:** Large open rivers, lakes, and reservoirs; pools and runs of rivers with low or moderate gradient (Burkhead and Jenkins 1991); also mouths of smaller streams. Seemingly tolerant of turbidity in Great Plains streams, but avoids turbid streams in Ohio (Trautman 1981). Most common in clear water over sand or gravel (Page and Burr 1991). Often aggregates in large schools in mid-water or near surface. May move closer to surface at night. In lakes, spawns over detritus-free substrate offshore at night at depths of 2-6 m; eggs sink to bottom (Becker 1983). Spawns over various substrates, typically over gravel

**Adult Food Habits:** Invertivore

**Immature Food Habits:** Invertivore

**Food Comments:** Feeds on drifting terrestrial and aquatic insects chiefly in the middle and upper parts of the water column (Burkhead and Jenkins 1991). Young eat mainly rotifers. Older fishes eat largely insects, especially terrestrial ones in summer, immature aquatic insects and amphipods in winter. In lakes, eats microcrustaceans, plankton, and insects (see Burkhead and Jenkins 1991).

**Colonial Breeder:** Y

**Length:** 10 centimeters

### Economic Attributes

### Management Summary

### Population/Occurrence Delineation

**Not yet assessed**  
**Use Class:** SMALL CYPRINIDS

**Not yet assessed**  
**Use Class:** Not applicable

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**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)**

Not yet  
assessed  
Not yet  
assessed

