

Summary

Conservation Status

Distribution

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[See All Search Results](#) [View Glossary](#)***Pimephales promelas*** - Rafinesque, 1820

Fathead Minnow

Unique Identifier: AFCJB32020

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	Pimephales

**Genus Size:** B - Very small genus (2-5 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:** *Pimephales promelas***Taxonomic Comments:** NOR chromosomal data support monophyly of the four extant species of PIMEPHALES and suggest that the genus PIMEPHALES belongs in a monophyletic assemblage with, among others, the cyprinid genera CYPRINELLA and OPSOPOEODUS (Li and Gold 1991); Coburn and Cavender (in press) also indicated that these three genera are phylogenetically closely related.**Conservation Status****NatureServe Status****Global Status:** G5**Global Status Last Reviewed:** 17Sep1996**Global Status Last Changed:** 17Sep1996**Rounded Global Status:** G5**Reasons:**

Widespread in North America; inhabits a variety of aquatic habitats, and tolerant of high temperatures, turbidity, and low oxygen.

**Nation:** United States**National Status:**

N5

**Nation:** Canada**National Status:**

N5

**U.S. & Canada State/Province Status**

United States	Alabama (SNA), Arizona (SNA), Arkansas (S4), California (SNA), Colorado (S5), Connecticut (SNA), Delaware (SNA), Georgia (SNA), Idaho (SNA), Illinois (S5), Indiana (S4), Iowa (S5), Kansas (S5), Kentucky (S4S5), Louisiana (S4), Maine (SU), Maryland (SNA), Massachusetts (SNA), Michigan (S5), Minnesota (SNR), Mississippi (SNA), Missouri (SNR), Montana (S4S5), Navajo Nation (SNA), Nebraska (S5), Nevada (SNA), New Hampshire (SNA), New Mexico (SNA), New York (S5), North Carolina (SNA), North Dakota (SNR), Oklahoma (S5), Oregon (SNA), Pennsylvania (S4), South Dakota (S5), Tennessee (SNA), Texas (S5), Utah (SNA), Vermont (S4), Virginia (S4), Washington (SNA), West Virginia (S4), Wisconsin (S4), Wyoming (S5)
Canada	Alberta (S5), British Columbia (SNA), Manitoba (S5), Northwest Territories (SNR), Ontario (S5), Quebec (S5), Saskatchewan (S5)

## Other Statuses

## NatureServe Conservation Status Factors

**Global Abundance:** FH

**Estimated Number of Element Occurrences:** DE

**Global Short Term Trend:** E

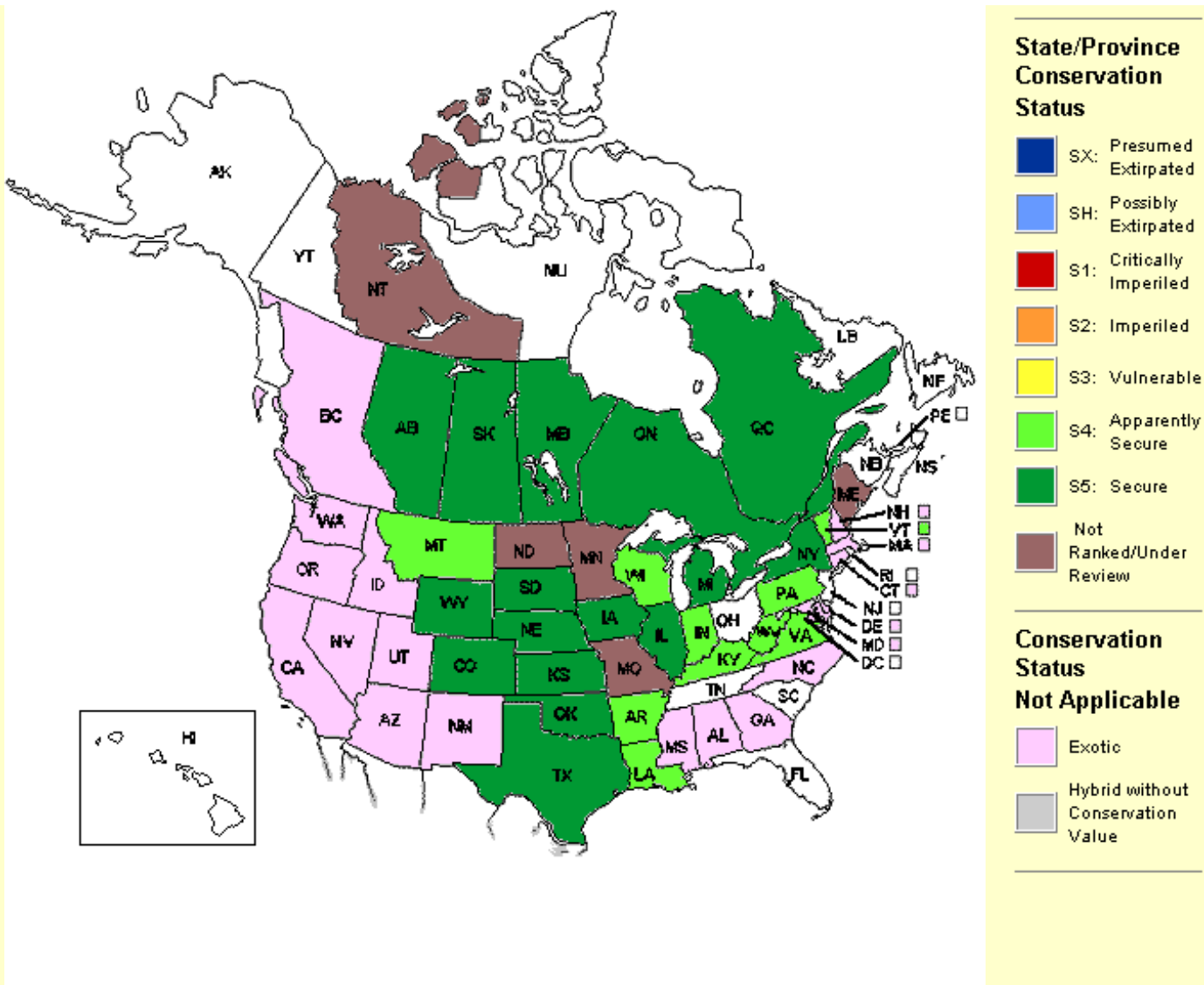
**Global Protection:** DE

**Degree of Threat:** D

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## Distribution

### U.S. States and Canadian Provinces



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

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

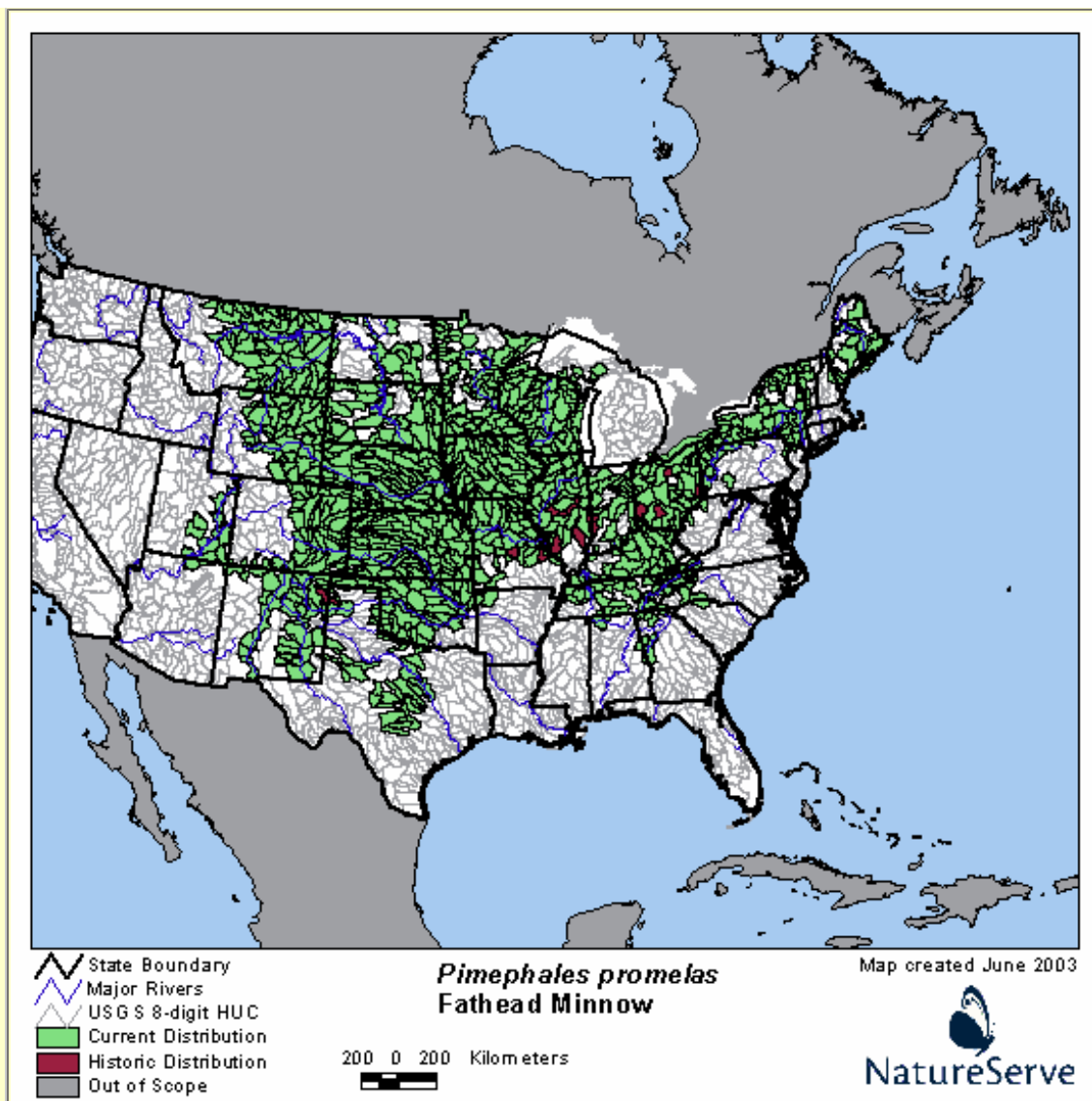
United States	AL, AR, AZ, CA, CO, CT, DE, GA, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NM, NN, NV, NY, OK, OR, PA, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY
Canada	AB, BC, MB, NT, ON, QC, SK

**Range Map**

No map available.

**Global Range Comments:** Throughout much of North America, from Alberta and Northwest Territories to Quebec and New Brunswick, south to Alabama, Texas, northern Mexico (Chihuahua), and New Mexico; introduced in Colorado River drainage (Arizona and New Mexico), Mobile Bay drainage (Alabama), and elsewhere, through use as bait fish; most common in Great Plains, generally absent from mountains, absent on Atlantic Slope south of Delaware River; common over much of range (Page and Burr 1991).

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



## Economic Attributes

**Economic Comments:** Popular bait fish; one of the 3 most widely cultured bait species (Sublette et al. 1990). A strain referred to as "rosy-red" minnow has been developed primarily for the pet trade (Page and Burr 1991). Has been used in carcinogenesis testing (Metcalf 1989).

## Management Summary

## Ecology & Life History

**Short General Description:** A small fish (minnow).

**Reproduction Comments:** Spawns in spring and summer. Eggs guarded by male, hatch in 4-6 days at 23-30 C. Sexually mature at age 0-III, at older age in north than in south. Most adults die after spawning.

### Ecology Comments

Schooling species.

**Habitat Type:** Freshwater

**Non-Migrant:** N

**Locally Migrant:** N

**Long Distance Migrant:** N

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

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

**Special Habitat Factors:** Benthic

**Habitat Comments:** Lakes, ponds, headwaters, creeks, small rivers, ditches, reservoirs, residual pools of intermittent streams (where sometimes very abundant); usually in sluggish or still water with abundant floating and submerged vegetation; tolerant of high temperature, turbidity, low oxygen, and high salinity. Adapts well to pond culture. Eggs are laid on underside of object in quiet water in nest guarded by male. Larvae collected in shoreline drift in upper Colorado River (where introduced).

**Adult Food Habits:** Herbivore, Invertivore

**Immature Food Habits:** Herbivore, Invertivore

**Food Comments:** Feeds opportunistically in soft bottom mud; eats algae and other plants, insects, small crustaceans, and other invertebrates (Becker 1983, Sublette et al. 1990).

**Length:** 10 centimeters

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## 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.

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**Population/Occurrence Viability**

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**Authors/Contributors****NatureServe Conservation Status Factors Edition Date:** 17Sep1996**NatureServe Conservation Status Factors Author:** Cannings, S. G., and G. Hammerson**Element Ecology & Life History Edition Date:** 14Sep1993**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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Conservancy - Migratory Bird Program, Conservation International - CABS, World Wildlife Fund - US, and Environment Canada - WILDSPACE."

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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.

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"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."

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