

# Hornyhead chub (*Nocomis biguttatus*)

## Freshwater Fish Species of Concern

State Rank: S1 (critically imperiled) Global Rank: G5 (secure)

### Description

The hornyhead chub takes its name from the pronounced white tubercles that develop on the heads of breeding males. The males reach a maximum length of 12 inches but are typically between 6-9 inches with the females being smaller. It is a stout bodied fish with a dark lateral band from the eye to the base of the tail, ending in a prominent dark spot. Its color is olive brown on the back and silvery on the sides with a creamy belly. There is a distinctive red patch behind each eye in breeding males. Its fins have an orangish coloring and it has a terminal mouth (rook.org). Prominent pearl organs are developed on the snout and posterior of head of breeding males (Cooper 1983).



© Native Fish Conservancy

### Behavior

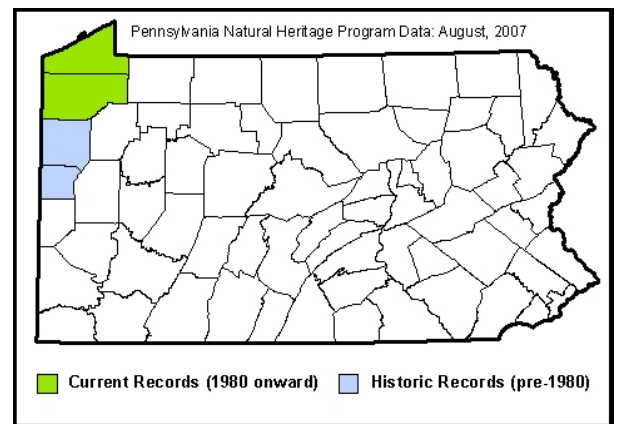
Males construct and guard large mound-nests in early summer in gravel riffles. Males defend these mounds from other hornyhead chubs but other minnow species use these convenient spawning sites and hybridization is prevalent. Following the spawning, where one male may spawn with several females, the nests are abandoned (Cooper 1983).

### Diet

The principal food items consist of invertebrates, but small amounts of plant material, which may be of little nutritional value, are taken incidentally (Cooper 1983).

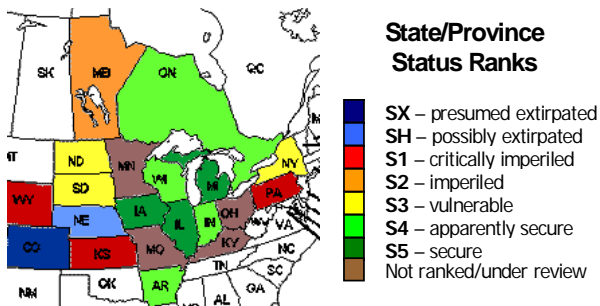
### Threats and Protection Needs

The hornyhead chub is critically imperiled in Pennsylvania but globally secure (natureserve.org). It is a candidate for rare listing in Pennsylvania (naturalheritage.state.pa.us). The hornyhead is common in much of its range and little data is available on possible threats and protection needs for this species. The hornyhead is harvested for bait from natural populations due to its appeal to large predators because of its size and its hardiness in handling (Cooper 1983).



### North American State/Province Conservation Status

Map by NatureServe (September 2007)



### Habitat

Generally found in a small to medium sized gravel rivers of low to moderate gradient, cool to warm water that is typically clear. It is found from New York west through Great Lakes and Mississippi River basins and Manitoba and North Dakota; south to Ohio River and lower Kentucky River system and into the Ozarks. Isolated populations exist in the Cheyenne river systems (natureserve.org). According to Steiner (2000) it is found in the Erie, Ohio, Susquehanna, and Delaware watersheds in Pennsylvania.

### References

- Rook, Earl J.S. Boundry Waters Canoe Area Wilderness. Flora, Fauna, Earth, and Sky: the natural history of the north woods. 1999. <http://www.rook.org/earl/bwca/nature/fish/nocomis.html>. Accessed: 9/12/2005.
- Cooper, Edwin L. Fishes of Pennsylvania and the Northeastern United States. The Pennsylvania State University Press and University Park and London. 1983
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: September 4, 2007).
- Steiner, Linda, Pennsylvania Fishes. Pennsylvania Fish and Boat Commission Bureau of Boating and Education Educational Media Section. 2000.

