

Bowfin (*Amia calva*)

Freshwater Fish Species of Concern

Global Rank: G5 (secure)

State Rank: S2S3 (imperiled)

Description

The Bowfin is the only living member of the Amiidae family, which lived 150 million years ago, and is thus a unique fish. They are a large, robust fish, growing several feet in length and up to ten pounds. Their color is olive-green on the back, lighter and mottled on the sides, and yellowish on the belly. Male bowfins can be identified by the dark spot on the upper side of the base of the tail fin. A single long, low dorsal fin extends over half the length of the body and is barely separated from the anal fin. The Bowfin has a pair of short barbels near the nostrils and has sharp, strong, teeth (Steiner 2000).



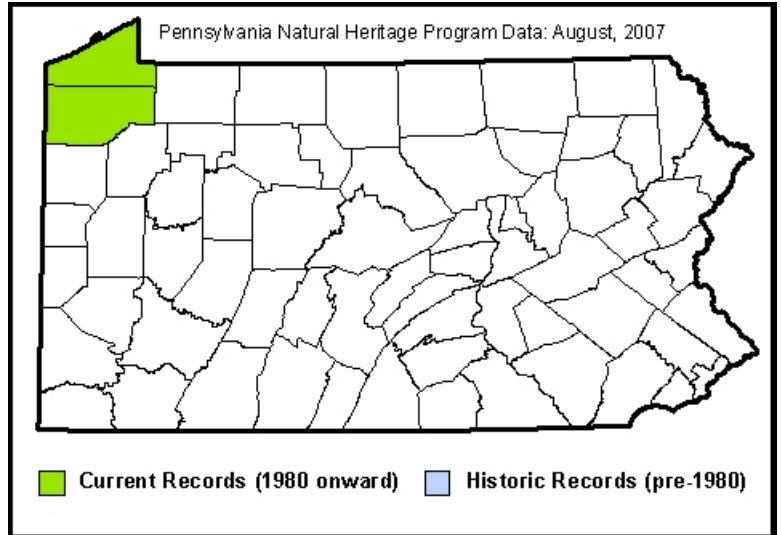
Photo:
© Native Fish Conservancy

Behavior

Bowfin mature and are ready to spawn when they are two to four years in age. They begin spawning in the spring when the male clears a round depression in the weedy shallows. Several females will then deposit their adhesive eggs in the nest and the male will guard them until they are older fry. The Bowfin, like gars, have a lung-like swim bladder which enables them to swim to the surface and gulp air when the water becomes too stagnant and anoxic (Steiner 2000).

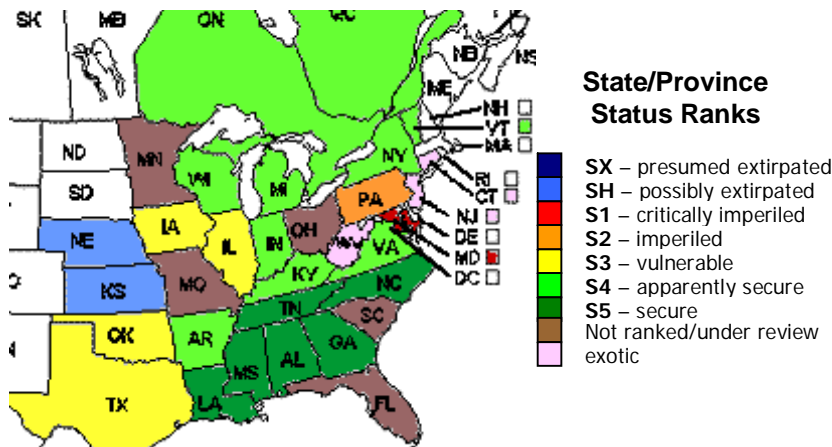
Diet

The Bowfin is a sluggish fish compared to others. It feeds opportunistically on many kinds of small animals like fish, crayfish, frogs, earthworms, and insects (natureserve.org). The Bowfin has a reputation as a voracious predator, however this is a questionable assumption (Cooper 1983).



North American State/Province Conservation Status

Map by NatureServe (September 2007)



Threats and Protection Needs

As a candidate rare species in Pennsylvania, meaning it is geographically restricted in its habitats; anglers must release the Bowfin immediately if caught (Steiner 2000). Not much data is available on the threats and protection needs of the Bowfin but it is assumed that a primary threat is habitat destruction. Bowfins can tolerate very warm water and have the ability to limit their body functions and slow their activities; such characteristics allow the Bowfin to tolerate waters other fish cannot.

Habitat

The Bowfin is widely distributed over the eastern half of the U.S. and adjacent southern Canada. It is found from the Great Lakes region to the St. Lawrence River, south along the Atlantic Coastal Plain to Florida, along the Gulf Coast and in the Mississippi River basin. It becomes most abundant in heavily vegetated warm lakes and rivers (natureserve.org). In Pennsylvania, the Bowfin is considered imperiled and is found only in the Presque Isle region of Lake Erie and at a few other places in the Delaware and Susquehanna drainages. Reports of anglers taking Bowfin from other places are probably due to occasional introductions (Cooper 1983).

References



Pennsylvania Natural Heritage Program

- 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).
- Cooper, Edwin L. Fishes of Pennsylvania and the Northeastern United States. The Pennsylvania State University Press and University Park and London. 1983
- Steiner, Linda, Pennsylvania Fishes. Pennsylvania Fish and Boat Commission Bureau of Boating and Education Educational Media Section. 2000.