Morone americana 正體中文

System: Brackish

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Perciformes	Moronidae

Common name

hvit havabbor (English, Norway), havabbor (English, Norway), vitabborre (English, Sweden), White perch (English, English), wreckfish (English, English), cernier atlantique (English, France), morona (Russian), spigola americana (English, Italy), bars (English, Denmark), narrow-mouthed bass (English), silver perch (English, English), sea perch (English), seebarsch (English, Germany), baret can (English, France), bar blanc d'Amerique (English, France), perche blanche (English, France), rokiel srebrzysty (English, Poland), Amerikansk bars (English, Denmark), robalo-do-norte (English, Portugal), robalo do norte (English, Portugal), Amerikanbassi (English, Finland)

Synonym

Perca americana , Gmelin, 1789
Morone americanus , (Gmelin, 1789)
Roccus americanus , (Gmelin, 1789)
Perca immaculata , Walbaum, 1792
Morone pallida , Mitchill, 1814
Morone rufa , Mitchill, 1814

Similar species

Summary

Morone americana is a semi-anadromous fish native the Atlantic Coast, that has made its way into the Great Lakes through the Erie and Welland canals. Dense Morone americana populations compete for food and feed on the eggs of native species. Hybridisation with other perch species is another threat that may cause dilution to local species gene pools.

view this species on IUCN Red List

Species Description

Morone americana is a semi-anadromous fish that in its native range migrates from the saltier areas of bays and coastland into tidal-fresh portions of streams and rivers to spawn in spring. *M. americana* usually reach a length of 127-178mm and can weight from 250g on average to a record of 650g. The colouring of this species is variable from dark grayish-green, dark silvery green, or dark brown to almost black on back; pale olive or silvery green on sides; silvery white on belly. Other identifying characteristics include: The body is deepest just ahead of, or at the beginning of, the dorsal fin; There are no lines or stripes on the back or sides; When the spiny dorsal fin is pulled erect, the soft dorsal fin also becomes erect; The second and third bony anal spines are almost exactly the same length; and The anal fin usually has 8 or 9 soft rays behind the 3 bony spines (Chesapeake Bay Program, 2006; National Sea Grant, 1998; and Wisconsin Sea Grant, 2002).

Notes
In the Chesapeake Bay, there is increasing concern about toxic materials, like Polychlorinated Biphenyls (PCBs). Scientists assess PCB concentrations in local *M. americana*. This species is a good indicator of toxic contaminant concentrations in the Bay's waters because they are a resident species in the Bay. Data gathered from Maryland and Virginia suggests that PCB concentrations are higher among *M. americana*in the upper Bay than they are in the lower Bay. Similarly, there is a trend in fish tissue where fish on the eastern shore have lower concentrations of PCBs than their counterparts on the western shore. A common characteristic among the areas of the Bay where *M. americana* have higher PCB concentrations is related to land development; the western shore of the Bay is more developed than the eastern shore of the Bay, and *M. americana* from the Bay's western shore have higher PCB concentrations than their counterparts on the eastern shore (Chesapeake Bay Program, 2006).

Lifecycle Stages
Males may spawn for the first time at age 2, females usually by age 3. These fish usually spawn in late spring in brackish to nearly fresh water rivers over sandy bottoms. When spawning females release between 50,000 and 150,000 eggs over a period of 10 to 21 days; several males may hover around a single female as she spawns to fertilize her eggs; and hatching takes place between 1 and 6 days following fertilization. Young *M. americana* use near shore areas downstream from their hatching areas to feed on the larvae of insects and crustaceans during their first summer and fall seasons. Mature *M. americana* may remain in quiet tributaries throughout spring and summer, or venture into open waters; in winter; however, adults swim downstream to the deeper channels. *M. americana* may live up to around 10 years, feeding on small fish and shellfish, and other bottom-dwelling aquatic species (Chesapeake Bay Program, 2006).

Uses
An excellent panfish highly regarded as a food fish in the Eastern United States, it is not often exploited as a game fish and generally is regarded as undesirable, especially when over-population in fresh waters causes the species to become stunted (Wisconsin Sea Grant, 2002).

Habitat Description
Their native range is the Atlantic Slope drainages from St. Lawrence-Lake Ontario drainage in Quebec south to the Peedee River of South Carolina. They have now become very common in shallow portions of inland lakes and rivers (Minnesota Sea Grant 2001; and Wisconsin Sea Grant, 2002).

Nutrition
Fish eggs are an important component of the diet of *Morone americana* especially in the spring months and this species will even cannibalize its own eggs. Walleye or white bass eggs can make up 100% of *M. americana* diet depending on which fish is spawning. *M. americana* also feed heavily on minnows of *Notropis spp.* and zooplankton (Fuller, 2005).

General Impacts
Morone americana compete for food with native fish species and also eat the eggs of walleye (*Stizostedion vitreum*), white bass (*Morone chrysops*), other *M. americana* and possibly other species as well. They are also believed to be a potential cause of decline in *S. vitreum* populations. Another concern is that *M. americana* have hybridized with native *Morone chrysops* in western Lake Erie. Hybrids are capable of backcrossing with parent species as well as crossing among themselves and could dilute the gene pool of both parent species (Fuller *et al*. 2006).
Fish eggs are an important diet component in the spring. Depending on which fish is spawning, the eggs of either walleye or white bass comprise 100% of *M. americana's* diet. Collapse in certain fisheries have coincided with increases in *M. americana* populations and are believed to be a result of egg predation and resulting lack of recruitment (Fuller *et al*. 2006).

Pathway
Species such as *R. catesbeiana* have been introduced into new locations with the intention of establishing new food sources for human consumption (Kraus, 2009). Although this pathway has been of limited importance in the second half of the 20th century although it is still important in many developing counties (Kraus, 2009).*M. americana* invaded the Great Lakes through the Erie and Welland canals in 1950 (WDNR, 2004).

Principal source: Pam Fuller, Erynn Maynard, and David Raikow, 2006. *Morone americana*. USGS Nonindigenous Aquatic Species Database, Gainesville, FL.

Compiler: National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)

Review: Pam Fuller USGS/BRD Nonindigenous Aquatic Species Program Florida Integrated Science Center Gainesville, Florida USA

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ALIEN RANGE

[1] BAY OF QUINTE
[1] LAKE CHAMPLAIN
[1] LAKE HURON
[1] LAKE ONTARIO
[1] LAKE SUPERIOR
[1] GREAT LAKES
[1] LAKE ERIE
[1] LAKE MICHIGAN
[1] LAKE ST. CLAIR
[38] UNITED STATES

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Managment information
Centre for Environment, Fisheries & Aquaculture Science (CEFAS)., 2008. Decision support tools-Identifying potentially invasive non-native marine and freshwater species: fish, invertebrates, amphibians.
Summary: The electronic tool kits made available on the Cefas page for free download are Crown Copyright (2007-2008). As such, these are freeware and may be freely distributed provided this notice is retained. No warranty, expressed or implied, is made and users should satisfy themselves as to the applicability of the results in any given circumstance. Toolkits available include 1) FISK- Freshwater Fish Invasiveness Scoring Kit (English and Spanish language version); 2) MFISK- Marine Fish Invasiveness Scoring Kit; 3) MI-ISK- Marine invertebrate Invasiveness Scoring Kit; 4) FI-ISK- Freshwater Invertebrate Invasiveness Scoring Kit and AmphISK- Amphibian Invasiveness Scoring Kit. These tool kits were developed by Cefas, with new VisualBasic and computational programming by Lorenzo Vilizzi, David Cooper, Andy South and Gordon H. Copp, based on VisualBasic code in the original Weed Risk Assessment (WRA) tool kit of P.C. Pheloung, P.A. Williams & S.R. Halloy (1999).
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Summary: In 1993, Canada, Mexico and the United States signed the North American Agreement on Environmental Cooperation (NAAEC) as a side agreement to the North American Free Trade Agreement (NAFTA). The NAAEC established the Commission for Environmental Cooperation (CEC) to help the Parties ensure that improved economic efficiency occurred simultaneously with trinational environmental cooperation. The NAAEC highlighted biodiversity as a key area for trinational cooperation. In 2001, the CEC adopted a resolution (Council Resolution 01-03), which created the Biodiversity Conservation Working Group (BCWG), a working group of high-level policy makers from Canada, Mexico and the United States. In 2003, the BCWG produced the &#65533;Strategic Plan for North American Cooperation in the Conservation of Biodiversity.&#65533; This strategy identified responding to threats, such as invasive species, as a priority action area. In 2004, the BCWG, recognizing the importance of prevention in addressing invasive species, agreed to work together to develop the draft CEC Risk Assessment Guidelines for Aquatic Alien Invasive Species (hereafter referred to as the Guidelines). These Guidelines will serve as a tool to North American resource managers who are evaluating whether or not to introduce a non-native species into a new ecosystem. Through this collaborative process, the BCWG has begun to implement its strategy as well as address an important trade and environment issue. With increased trade comes an increase in the potential for economic growth as well as biological invasion, by working to minimize the potential adverse impacts from trade, the CEC Parties are working to maximize the gains from trade while minimizing the environmental costs.
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