# GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Micropterus salmoides***

***Micropterus salmoides*** 简体中文 正體中文 **System:** Freshwater

| Kingdom | Phylum | Class | Order | Family |
|---|---|---|---|---|
| Animalia | Chordata | Actinopterygii | Perciformes | Centrarchidae |

**Common name**

lobina negra (Spanish, Mexico), achigan (French), American black bass (English), green bass (English), bas dehanbozorg (Farsi), bass (English), bass wielkgebowy (Polish), black bass (English), bolsherotnyi amerikanskii tscherny okun (Russian), achigã (Portuguese), achigan à grande bouche (French), bol'sherotyi chernyi okun' (Russian), forelbaars (Dutch), forellenbarsch (German), green trout (English), huro (Spanish), khorshid Mahi Baleh Kuchak (Farsi), lakseabbor (Norwegian), largemouth black bass (English), northern largemouth bass (English, Canada), ostracka (Czech), großmäuliger Schwarzbarsch (German), okounek pstruhový (Czech), Ørredaborre (Danish), perche noire (French), perche truite (French), stormundet black bass (Danish), tam suy lo ue (Cantonese), zwarte baars (Dutch), lobina-truche (English, Dominican Republic), buraku basu (Japanese), biban cu gura mare (Romanian), perca Americana (Spanish), persico trota (Italian), isobassi (Finnish), perche d'Amérique (French), stormundet ørredaborre (Danish), bas wielkogeby (English, Poland), okuchibasu (Japanese), largemouth bass (English), fekete sügér (Hungarian), ostracka lososovitá (Slovak), Öringsaborre (Swedish)

**Synonym**

*Labrus salmoides* , Lacepède, 1802
*Huro salmoides* , (Lacepède, 1802)
*Aplites salmoides* , (Lacepède, 1802)
*Perca nigricans* , (Cuvier, 1828)
*Micropterus salmoides* , (Lacepède, 1802)
*Huro nigricans* , Cuvier, 1828
*Grystes megastoma* , Garlick, 1857

**Similar species**

**Summary**

Micropterus salmoides (bass) has been widely introduced throughout the world due to its appeal as a sport fish and for its tasty flesh. In some places introduced Micropterus salmoides have affected populations of small native fish through predation, sometimes resulting in the their decline or extinction. Its diet includes fish, crayfish, amphibians and insects.

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**Species Description**

Dorsal spines (total): 10-10; Dorsal soft rays (total): 12-14; Anal spines: 3-3; Anal soft rays: 10-12; Vertebrae: 30-32. Mouth large; maxillary extending beyond the eye. Pelvic fins not joined by a membrane. Green to olive dorsally, milk-white to yellow ventrally, with a black band running from the operculum to the base of the caudal fin. Caudal fin rounded. Caudal fin with 17 rays .\" (FishBase, 2003)

**Notes**
*Micropterus salmoides* is the most popular game fish in the United States; a recreational fishery that is worth millions of dollars. Preyed upon by herons, bitterns, and kingfishers. Excellent food fish .\" (FishBase, 2003)

**Lifecycle Stages**
Spawning takes place spring to summer or when temperature reaches 15°C. Adults mate between the age of 5-12 years (FishBase, 2003).

**Uses**
Fisheries; minor commercial, aquaculture; commercial, gamefish, aquarium: show aquarium. (FishBase, 2003)

**Habitat Description**
Inhabits clear, vegetated lakes, ponds, swamps. Also in backwaters and pools of creeks and rivers. Prefers quiet, clear water and over-grown banks.\" (FishBase, 2003). Largemouth bass are highly adaptable fish, able to thrive in virtually every warm-water habitat, from small creeks to large rivers to huge reservoirs. About the only thing that limits them is cold annual water temperatures (<10C) or low pH (<6), both of which presumably inhibit reproduction, since adults can survive in both habitats, but populations will not persist.

**Reproduction**
The male which becomes aggressive and territorial builds the nest on muddy bottoms of shallow water. A female may spawn with several males on different nests. The male guards and fans the eggs. (FishBase, 2003)

**Nutrition**
Food habits of *Micropterus salmoides* are very diverse, but mainly consist of fish or invertebrates. Sometimes cannibalistic. Does not feed during spawning; as well as when the water temperature is below 5°C and above 37°C ( FishBase, 2003). Well-known communities involve either LMB and bluegill (*Lepomis machrochirus*) or LMB and shad (*Dorosoma* spp). Much work has been done on the dynamics of these two communties. The LMB-BG communities tend to be more in the northern natural lakes, whereas the LMB-shad communities are more common in large southern reservoirs.

**General Impacts**
Introduced bass usually affect populations of small native fishes through predation, sometimes resulting in the decline or extinction of such species (Minckley 1973, in Fuller, 1999). Studies have shown that largemouth bass are capable of displacing native species, even predatory species such as northern pike.(USGS-CERC, 2004)

**Pathway**
This species has been an important sport fish for many years and as such has been stocked widely in areas where it is nonindigenous. (Fuller, 1999)Fishing and Angling

**Principal source:** FishBase, 2005. Species profile *Micropterus salmoides* Largemouth bass

**Compiler:** IUCN/SSC Invasive Species Specialist Group (ISSG)

**Review:** Dr. Steve Sammons M. Department of Fisheries and Aquaculture, Auburn University. USA

**Pubblication date:** 2006-04-11

**ALIEN RANGE**

**[1]** ALGERIA
**[1]** ARGENTINA
**[1]** ATLANTIC - WESTERN CENTRAL
**[1]** AUSTRIA

**[1]** BELARUS
**[1]** BOLIVIA
**[1]** BRAZIL
**[1]** CANADA
**[1]** CHINA
**[1]** CONGO
**[1]** CUBA
**[1]** CZECH REPUBLIC
**[1]** DOMINICAN REPUBLIC
**[1]** EGYPT
**[1]** ESTONIA
**[1]** FIJI
**[1]** FRANCE
**[1]** GERMANY
**[1]** GUATEMALA
**[1]** HONG KONG
**[1]** IRAN, ISLAMIC REPUBLIC OF
**[1]** JAPAN
**[1]** KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
**[1]** LATVIA
**[1]** LITHUANIA
**[1]** MALAWI
**[1]** MAURITIUS
**[1]** MOROCCO
**[1]** NAMIBIA
**[2]** NEW CALEDONIA
**[1]** NORWAY
**[1]** PHILIPPINES
**[1]** PORTUGAL
**[1]** REUNION
**[1]** SLOVAKIA
**[1]** SPAIN
**[1]** SWEDEN
**[1]** TAIWAN
**[1]** TUNISIA
**[1]** UKRAINE
**[1]** VIRGIN ISLANDS, U.S.
**[1]** ZIMBABWE
**[1]** BELGIUM
**[1]** BOTSWANA
**[1]** CAMEROON
**[1]** CENTRAL PACIFIC TERRITORIES
**[1]** COLOMBIA
**[1]** COSTA RICA
**[1]** CYPRUS
**[1]** DENMARK
**[1]** ECUADOR
**[1]** EL SALVADOR
**[1]** EX-YUGOSLAVIA
**[1]** FINLAND
**[1]** FRENCH POLYNESIA
**[2]** GUAM
**[1]** HONDURAS
**[1]** HUNGARY
**[1]** ITALY
**[1]** KENYA
**[1]** KOREA, REPUBLIC OF
**[1]** LESOTHO
**[1]** MADAGASCAR
**[1]** MALAYSIA
**[1]** MEXICO
**[1]** MOZAMBIQUE
**[1]** NETHERLANDS
**[1]** NIGERIA
**[1]** PANAMA
**[1]** POLAND
**[1]** PUERTO RICO
**[1]** RUSSIAN FEDERATION
**[1]** SOUTH AFRICA
**[1]** SWAZILAND
**[1]** SWITZERLAND
**[1]** TANZANIA, UNITED REPUBLIC OF
**[1]** UGANDA
**[1]** UNITED STATES
**[1]** ZAMBIA

**Red List assessed species 14: EX = 2; CR = 3; EN = 5; VU = 2; NT = 2;**

Allotoca diazi **CR**
Aythya innotata **CR**
Cyprinodon radiosus **EN**
Labeobarbus capensis **VU**
Notropis topeka **NT**
Profundulus hildebrandi **EN**
Sandelia bainsii **EN**
Ardeola idae **EN**
Chiloglanis bifurcus **EN**
Iberocypris alburnoides **VU**
Libellula angelina **CR**
Podilymbus gigas **EX**
Pseudobarbus tenuis **NT**
Tachybaptus rufolavatus **EX**

**BIBLIOGRAPHY**
**22** references found for **Micropterus salmoides**

**Managment information**
Alien Species in Poland 2006 *Micropterus salmoides*
**Summary:** Available from: http://www.iop.krakow.pl/ias/Gatunek.aspx?spID=212 [Accessed 18 March 2010]

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).
The decision support tools are available from:
http://cefas.defra.gov.uk/our-science/ecosystems-and-biodiversity/non-native-species/decision-support-tools.aspx [Accessed 13 October 2011]
The guidance document is available from http://www.cefas.co.uk/media/118009/fisk_guide_v2.pdf [Accessed 13 January 2009].
Clearwater, Susan J.; Chris W. Hickey and Michael L. Martin. 2008. Overview of potential piscicides and molluscicides for controlling aquatic pest species in New Zealand. Science for conservation 283. March 2008, New Zealand Department of Conservation
**Summary:** Available from: http://www.doc.govt.nz/upload/documents/science-and-technical/sfc283entire.pdf [Accessed 20 March 2008]
Columbia Environmental Research Center International Falls Biological Station Research Program
**Summary:** Management and impacts.
Available from: http://www.cerc.cr.usgs.gov/FRS_Webs/Intrntl/research.htm#compet [Accessed 12 January, 2004]
Copp, G.H., Garthwaite, R. and Gozlan, R.E., 2005. Risk identification and assessment of non-native freshwater fishes: concepts and perspectives on protocols for the UK. Sci. Ser. Tech Rep., Cefas Lowestoft, 129: 32pp.
**Summary:** The discussion paper presents a conceptual risk assessment approach for freshwater fish species that addresses the first two elements (hazard identification, hazard assessment) of the UK environmental risk strategy The paper presents a few worked examples of assessments on species to facilitate discussion.
Available from: http://www.cefas.co.uk/publications/techrep/tech129.pdf [Accessed 1 September 2005]
Hewitt, C.L, Campbell, M.L. and Gollasch, S. 2006. Alien Species in Aquaculture. Considerations for responsible use. IUCN, Gland, Switzerland and Cambridge, UK. viii + 32 pp.
**Summary:** This publication aims to first provide decision makers and managers with information on the existing international and regional regulations that address the use of alien species in aquaculture, either directly or indirectly; and three examples of national responses to this issue (New Zealand, Australia and Chile).
Available from: http://data.iucn.org/dbtw-wpd/edocs/2006-036.pdf [Accessed 22 September 2008]
Mendoza, R.E.; Cudmore, B.; Orr, R.; Balderas, S.C.; Courtenay, W.R.; Osorio, P.K.; Mandrak, N.; Torres, P.A.; Damian, M.A.; Gallardo, C.E.; Sanguines, A.G.; Greene, G.; Lee, D.; Orbe-Mendoza, A.; Martinez, C.R.; and Arana, O.S. 2009. Trinational Risk Assessment Guidelines for Aquatic Alien Invasive Species. Commission for Environmental Cooperation. 393, rue St-Jacques Ouest, Bureau 200, Montr&#65533;al (Qu&#65533;bec), Canada. ISBN 978-2-923358-48-1.
**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.
Available from: English version: http://www.cec.org/Storage/62/5516_07-64-CEC%20invasives%20risk%20guidelines-full-report_en.pdf [Accessed 15 June 2010]
French version: http://www.cec.org/Storage/62/5517_07-64-CEC%20invasives%20risk%20guidelines-full-report_fr.pdf [Accessed 15 June 2010]
Spanish version: http://www.cec.org/Storage/62/5518_07-64-CEC%20invasives%20risk%20guidelines-full-report_es.pdf [Accessed 15 June 2010].
The Outlaws of the Ecosystem - Invasive Alien Species Ministry of Environment, Republic of Korea.
**Summary:** Report from Republic of Korea.

**General information**

CONABIO. 2008. Sistema de informaci&#65533;n sobre especies invasoras en M&#65533;xico. Especies invasoras - Peces. Comisi&#65533;n Nacional para el Conocimiento y Uso de la Biodiversidad. Fecha de acceso.
**Summary:** English:
The species list sheet for the Mexican information system on invasive species currently provides information related to Scientific names, family, group and common names, as well as habitat, status of invasion in Mexico, pathways of introduction and links to other specialised websites. Some of the higher risk species already have a direct link to the alert page. It is important to notice that these lists are constantly being updated, please refer to the main page (http://www.conabio.gob.mx/invasoras/index.php/Portada), under the section Novedades for information on updates.
Invasive species - fish is available from: http://www.conabio.gob.mx/invasoras/index.php/Especies_invasoras_-_Peces [Accessed 30 July 2008]
Spanish:
La lista de especies del Sistema de informaci&#65533;n sobre especies invasoras de m&#65533;xico cuenta actualmente con informaci&#65533;n aceca de nombre cient&#65533;fico, familia, grupo y nombre com&#65533;n, as&#65533; como h&#65533;bitat, estado de la invasi&#65533;n en M&#65533;xico, rutas de introducci&#65533;n y ligas a otros sitios especializados. Algunas de las especies de mayor riesgo ya tienen una liga directa a la p&#65533;gina de alertas. Es importante resaltar que estas listas se encuentran en constante proceso de actualizaci&#65533;n, por favor consulte la portada (http://www.conabio.gob.mx/invasoras/index.php/Portada), en la secci&#65533;n novedades, para conocer los cambios.
Especies invasoras - Peces is available from: http://www.conabio.gob.mx/invasoras/index.php/Especies_invasoras_-_Peces [Accessed 30 July 2008]
Donaldson, Terry J., pers comm. Dec. 2004. University of Guam Marine Laboratory, Guam 96913 USA. Chair, IUCN/SSC Coral Reef Fishes Specialist Group. Secretary, Society for the Conservation of Reef Fish Aggregations. Email: donaldsn@uog9.uog.edu Websites: www.uog.edu/marinelab, www.marine.org, www.scrfa.org [some information provided by Brent Tibbetts from the Guam Aquatic and Wildlife Resources].
FishBase, 2005. Species profile *Micropterus salmoides* Largemouth bass
**Summary:** FishBase is a global information system with all you ever wanted to know about fishes . FishBase on the web contains practically all fish species known to science. FishBase was developed at the WorldFish Center in collaboration with the Food and Agriculture Organization of the United Nations (FAO) and many other partners, and with support from the European Commission (EC). Since 2001 FishBase is supported by a consortium of seven research institutions. You can search on Search FishBase
This species profile is available from:
http://www.fishbase.org/Summary/SpeciesSummary.cfm?genusname=Micropterus&speciesname=salmoides [Accessed 21 March, 2005]
Fuller, P., 1999. *Micropterus salmoides* Nonindigenous Aquatic Species Database, Gainesville, FL.
**Summary:** Available from: http://nas.er.usgs.gov/queries/FactSheet.asp?speciesID=401
Gargominy, O., Bouchet, P., Pascal, M., Jaffre, T. and Tourneu, J. C. 1996. Consequences des introductions d'especes animals et vegetales sur la biodiversite en Nouvelle-Caledonie. Rev. Ecol. (Terre Vie) 51: 375-401.
**Summary:** Consequences to the biodiversity of New Caledonia of the introduction of plant and animal species.
ITIS (Integrated Taxonomic Information System), 2005. Online Database *Micropterus salmoides*
**Summary:** An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.
Available from:
http://www.cbif.gc.ca/pls/itisca/taxastep?king=every&p_action=containing&taxa=Micropterus+salmoides&p_format=&p_ifx=plglt&p_lang= [Accessed March 2005]
Keith, P. 2002. Freshwater fish and decapod crustacean populations on Reunion island, with an assessment of species introductions. Bull. Fr. P&#65533;che Piscic., 364, 97-107.
**Summary:** Cet article propose un bilan de la connaissance des esp&#65533;ces de poissons et des crustac&#65533;s d&#65533;capodes pr&#65533;sents dans les eaux douces de La R&#65533;union avec une synth&#65533;se des esp&#65533;ces introduites.
Keith, P. 2002. Revue des introductions de poissons et de crustac&#65533;s d&#65533;capodes d eau douce en Polyn&#65533;sie fran&#65533;aise. Bull. Fr. P&#65533;che Piscic, 364, 147-160.
**Summary:** Cet article fait le bilan des introductions d esp&#65533;ces dul&#65533;aquicoles en Polyn&#65533;sie fran&#65533;aise.
Keith, P. 2005. Revue des introductions de poissons et de crustac&#65533;s d&#65533;capodes d eau douce en Nouvelle-Cal&#65533;donie. Revue d Ecologie (La Terre et la vie), 60, 45-55.
**Summary:** Cet article propose un bilan complet et actualis&#65533; des introductions d esp&#65533;ces de poissons et de crustac&#65533;s d&#65533;capodes dans les eaux douces de Nouvelle-Cal&#65533;donie.
Keith, P., Marquet, G., Valade, P., Bosc, P. & Vigneux, E. 2006. Atlas des poissons et crustac&#65533;s d&#65533;eau douce des Comores, Mascareignes et Seychelles. MNHN, Patrimoines naturels, vol. 67, Paris, 158p.
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**Summary:** Synth&#65533;se des introductions d esp&#65533;ces de vert&#65533;br&#65533;s en Nouvelle-Cal&#65533;donie et &#65533;valuation de leurs impacts.