

Lates niloticus x x

System: Freshwater

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Perciformes	Centropomidae

Common name persico del nilo (Italian), Nile perch (English), Nilbarsch (German), nijlbaars (Dutch), sangara (Kiswahili), Victoria perch (English), victoriabaars (Dutch), chengu (Kijitta), mbuta (Kiluo), perche du nil (French), victoriabarsch (German), perca di nilo (Spanish), nilaborre (Swedish)

Synonym *Perca latus*, Geoffroy Saint-Hilaire, 1827
Lates niloticus, var. *macrolepidota* Pellegrin, 1922
Lates albertianus, Worthington, 1932
Lates niloticus rudolfianus, Worthington, 1932

Similar species

Summary The Nile perch (*Lates niloticus*) is a large freshwater fish. Also known as capitaine, mputa or sangara, it can grow up to 200kg and two metres in length. It was introduced to Lake Victoria in 1954 where it has contributed to the extinction of more than 200 endemic fish species through predation and competition for food.



[view this species on IUCN Red List](#)

Species Description

Large perch-like predator. Dorsal fin deeply notched, giving the appearance of two separate fins; the first part completely spinous; third dorsal spine enlarged. Lateral line continuous. Pre-orbital and pre-opercular bones with spines; a large spine on operculum.

Lifecycle Stages

In Lake Victoria, male size at first maturity 50-55cm TL (ca. 2 years), females 67,5-85cm TL (2-4 years). Fifty percent maturity at 60-74cm TL for males and 102-110cm TL for females. Maturity sizes strongly decreasing in recent years.

Uses

Nile perch took decades to become evident in Lake Victoria and then burst into the huge biomass of the late 1980s and 1990s and the subsequent harvest for export. It rose to become the main fishery species in the lake in the late 1990s and the basis of a huge export industry. This raised the price of Nile perch to something beyond the reach of many lakeside communities. All of this was documented in the first two phases of an IUCN-World Conservation Union's Nile perch project, which culminated in the making of the film "Big fish, small fry". The project has moved on to conflict resolution and capacity building using "beach units" to give more responsibility and management involvement to local people. This work is supported by the three riparian government fisheries departments, through the Lake Victoria Fisheries Organisation (LVFO), and is currently being reviewed.

In recent years the Nile perch population has begun to stabilise and the availability of large fish has declined as has the catch which is now way below the capacity of the factories which process and export the fish to USA, Europe, Australia and New Zealand. The view of the three riparian governments is that Nile perch is an essential export earner and they have attempted to brand it as "organic", as it is wild and without artificial additives etc. (although cage rearing has begun). This same export has brought some benefits to the local people (in income from fishing and jobs in factories) and some disbenefits from availability of fish for food and economic and social upheaval (Howard, G., pers. comm., August 2005).

Habitat Description

Freshwater species, but living in brackish waters in Lake Mariout. Introductions in Lake Victoria were mainly from Lake Albert, but also from Lake Turkana. The present populations in Lake Victoria are apparently not pure *Lates niloticus* but contain some genetic material from *Lates macrophthalmus* from Lake Albert.

Reproduction

Free spawning over shallow sheltered areas, all the year round with peaks in rainy season. Up to 16 million eggs per breeding cycle.

Nutrition

Large predator, feeding in Lake Victoria on haplochromine cichlids, the zooplanktivorous cyprinid *Rastrineobola argentea*, the prawn *Caridina nilotica* and juvenile Nile perch (cannibalism). Young stages feed on invertebrates.

General Impacts

The Nile perch is responsible through predation and competition for food for the decimation and possible disappearance of two hundred or more species of the unique flock of endemic haplochromine cichlids in Lake Victoria.

Management Info

Eradication of the Nile perch in Lake Victoria is impossible in practice, and is also not an option because of its economic success.

Pathway

Introduced for fisheries purposes.

Principal source:

Compiler: Dr. Jos Snoeks, Africa Museum, Leuvensesteenweg, Tervuren, Belgium & IUCN/SSC Invasive Species Specialist Group (ISSG)

Review: Dr. Jos Snoeks, Africa Museum, Leuvensesteenweg, Tervuren, Belgium.

Publication date: 2005-04-13

ALIEN RANGE

[1] CUBA

[1] UNITED STATES

[1] LAKE VICTORIA

Red List assessed species 145: CR = 51; EN = 2; VU = 17; DD = 62; LC = 13;

Allochromis welcommei VU	Astatoreochromis alluaudi LC
Astatotilapia piceatus CR	Bagrus docmak LC
Brycinus jacksonii EN	Brycinus sadleri LC
Haplochromis acidens DD	Haplochromis aelocephalus CR
Haplochromis altigenis DD	Haplochromis antleter CR
Haplochromis apogonoides CR	Haplochromis arcanus DD
Haplochromis argenteus CR	Haplochromis artaxerxes DD
Haplochromis barbarae CR	Haplochromis bareli CR
Haplochromis bartoni DD	Haplochromis bayoni DD
Haplochromis boops DD	Haplochromis brownae CR
Haplochromis bwathondii VU	Haplochromis cassius CR
Haplochromis cavifrons DD	Haplochromis chlorochrous DD
Haplochromis chromogynos VU	Haplochromis chrysogynaion DD
Haplochromis cinctus CR	Haplochromis cinereus DD
Haplochromis cnester CR	Haplochromis coprologus CR
Haplochromis crassilabris CR	Haplochromis crocopeplus CR
Haplochromis cronus DD	Haplochromis cryptodon DD
Haplochromis cryptogramma DD	Haplochromis cyaneus EN
Haplochromis decticostoma DD	Haplochromis dentex CR
Haplochromis dichrourus CR	Haplochromis diplotaenia DD
Haplochromis dolichorhynchus DD	Haplochromis empodisma DD
Haplochromis erythrocephalus DD	Haplochromis estor DD
Haplochromis eutaenia DD	Haplochromis fischeri VU
Haplochromis flavipinnis CR	Haplochromis gilberti DD
Haplochromis gowersi DD	Haplochromis granti CR
Haplochromis harpakteridion DD	Haplochromis heusinkveldi CR
Haplochromis hiatus CR	Haplochromis humilior DD
Haplochromis iris CR	Haplochromis ishmaeli CR
Haplochromis katunzii CR	Haplochromis kujunjui DD
Haplochromis labriformus DD	Haplochromis lacrimosus DD
Haplochromis laparogramma LC	Haplochromis laprogramma VU
Haplochromis lividus DD	Haplochromis longirostris CR
Haplochromis macrognathus CR	Haplochromis macrops DD
Haplochromis maculipinna DD	Haplochromis maisomei DD
Haplochromis mandibularis DD	Haplochromis martini CR
Haplochromis maxillaris VU	Haplochromis megalops VU
Haplochromis melanopterus VU	Haplochromis melanopus DD
Haplochromis melichrous DD	Haplochromis mento DD
Haplochromis michaeli CR	Haplochromis microdon CR
Haplochromis mylergates CR	Haplochromis nanoserranus CR
Haplochromis nigrescens DD	Haplochromis nuchisquamulatus DD
Haplochromis nyanzae DD	Haplochromis obesus CR
Haplochromis obtusidens DD	Haplochromis pachycephalus DD
Haplochromis pallidus DD	Haplochromis pancitrinus CR
Haplochromis paraguarti DD	Haplochromis paraplagiostoma DD
Haplochromis paropius LC	Haplochromis parvidens CR

Haplochromis pellegrini DD	Haplochromis percoides CR
Haplochromis perrieri CR	Haplochromis pharyngomyilus DD
Haplochromis phytophagus DD	Haplochromis piceatus VU
Haplochromis pitmani DD	Haplochromis plagiodon VU
Haplochromis plagiostoma DD	Haplochromis plutonius CR
Haplochromis prodromus DD	Haplochromis prognathus DD
Haplochromis pseudopellegrini DD	Haplochromis ptistes CR
Haplochromis pyrrhocephalus LC	Haplochromis pyrrhopteryx CR
Haplochromis riponianus LC	Haplochromis saxicola DD
Haplochromis serranus DD	Haplochromis spekii DD
Haplochromis sphex CR	Haplochromis sp. nov. 'argens' VU
Haplochromis sp. nov. 'micro-obesus' CR	Haplochromis squamulatus DD
Haplochromis sulphureus CR	Haplochromis tanaos LC
Haplochromis teegelaari CR	Haplochromis teunisrasi CR
Haplochromis theliodon CR	Haplochromis thereuterion VU
Haplochromis thuragnathus DD	Haplochromis tridens DD
Haplochromis tyrianthinus DD	Haplochromis ushindi CR
Haplochromis vanoiijeni VU	Haplochromis victorianus CR
Haplochromis vonlinnei CR	Haplochromis worthingtoni DD
Haplochromis xenognathus LC	Haplochromis xenostoma CR
Hoplotilapia retrodens VU	Labeo victorianus LC
Macropodus bicolor VU	Mastacembelus frenatus LC
Mormyrus kannume LC	Oreochromis esculentus CR
Oreochromis variabilis CR	Paralabidochromis victoriae DD
Platytaeniodus degeni LC	Pundamilia macrocephala VU
Pyxichromis parorthostoma DD	Xenoclaris eupogon CR
Yssichromis fusiformis VU	

BIBLIOGRAPHY

13 references found for *Lates niloticus*

Management 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).

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](http://www.cefas.co.uk/media/118009/fisk_guide_v2.pdf) 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]

[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]

Fryer, G. 1960. Concerning the proposed introduction of *Nile perch* into Lake Victoria. East African Agricultural Journal 25(4): 267-270.

Summary: The suggestion that the fishery in Lake Victoria would benefit if the *Nile perch* were introduced is based on ignorance of several fundamental biological concepts. Such an introduction is not only undesirable but would jeopardize the existing commercial fishery.

[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, Montréal \(Québec\), 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 Strategic Plan for North American Cooperation in the Conservation of Biodiversity. 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].

Pitcher, T. J., Hart, P. J. B. 1995. The impact of species changes in African lakes. Fish and Fisheries Series 18, Chapman & Hall, London: 601pp.

Summary: This book covers the impact of species changes engendered by the introduction of fish species, impoundment and heavy exploitation. Aspects considered include reduction of biodiversity, the conservation of unique endemic faunas, the assessment of changes in Witte, F., Van Densen, W. L. T. 1995. Fish stocks and fisheries of Lake Victoria. Samara Publishing Ltd., UK. 404pp.

Summary: The results of eighteen years research on the fisheries of Lake Victoria are presented. The introduction is followed by sections dealing successively with fish and fisheries, methodologies for sampling, gear and boats, methods for monitoring fish stocks,

General information

[FishBase, 2005. Species profile *Lates niloticus* Nile perch](#)

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?id=347i> [Accessed 21 March, 2005]

[Food and Agriculture Organisation of the United Nations \(FAO\), 1998. Aquatic Species Introductions Database \(DIAS\).](#)

Summary: The database includes records of aquatic species introduced or transferred from one country to another and does not consider movements of species inside the same country. Coverage of accidental introductions of organisms (e.g., through ship ballast waters) is not complete and records on this topic have been generally entered only when important impacts on fisheries or on the environment have been caused.

Hauser, L., Carvalho, G. R., Pitcher, T. J. and Ogutu-Ohwayo, R. 1998. Genetic affinities of an introduced predator: Nile perch in Lake Victoria, East Africa. *Molecular Ecology* 7: 849-859.

Summary: Several populations of Nile perch have been used to stock the lakes of the Lake Victoria system. The taxonomic status of the introduced populations has been examined through enzyme analysis. Genetically, introduced Nile perch in Lakes Kyoga and Nabugabo Howard, G., pers. comm., August 2005. Extracted from an email from Geoffrey Howard, Regional Programme Coordinator IUCN - East Africa Regional Office, Nairobi, Kenya.

[ITIS \(Integrated Taxonomic Information System\), 2005. Online Database *Lates niloticus*](#)

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=Lates+niloticus&p_format=&p_ifx=plglt&p_lang=

[Accessed March 2005]

Pringle, M. Robert., 2005. The Origins of the Nile Perch in Lake Victoria. *BioScience* September 2005 / Vol. 55 No. 9