GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Monopterus albus***

Monopterus albus 正體中文

System: Freshwater

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Synbranchiformes	Synbranchidae

Common name white ricefield eel (English), swamp eel (English), rice eel (English)

Synonym *Fluta alba* , (Bloch and Schneider, 1801)

Similar species

Summary Although its impacts are unknown, Monopterus albus' predaceous and generalised feeding habit poses a potential threat to native fish, frogs and aquatic invertebrates. In Florida and Georgia, introduction is likely due to an aquarium release or a fish farm escape or release. It is believed that Monopterus albus was originally brought to Hawaii by Asian immigrants as a food fish.

view this species on IUCN Red List

Species Description
Aguirre and Poss (1999) state that the body of *M. albus* is more or less cylindrical; the tail is compressed, tapering to a slender point much shorter than the trunk. Scales are absent. The snout is bluntly rounded, and the jaws and palate have rows of viliform teeth. The upper lip is thick overlapping part of the lower lip. The eye is small, covered by a layer of skin. Body colour is slate brown above and white to light-brown below with small, dark spots on its sides and occasionally on the ventral surface. *M. albus* may grow to a metre in length, but most grow to between 25cm and 40cm.

Uses
According to Bricking (2002), in Asia,*M. albus* are considered a food fish, and a delicacy. They are also found in markets as food in the United States, as well as in pet supply stores, although they are not as well known.

Habitat Description
Bricking (2002) states that *M. albus* lives in muddy ponds, swamps, canals, and rice fields, where it burrows in moist earth in the dry season, surviving for long periods without water.

Reproduction
According to Aguirre and Poss (1999), *M. albus* eggs are laid into a bubble nest in shallow water. The nest is typically not attached to vegetation but floats freely at the surface. One or both parents guard the eggs and young.

Nutrition
Bricking (2002) states that *M. albus* are nocturnal generalized predators (carnivores) that devour fishes, worms, crustaceans, and other small aquatic animals.

General Impacts
According to Bricking (2002), the impacts of *M. albus* are uncertain, however, they are likely to affect the population size of their prey, as well as the availability of food sources for larger fish, turtles, frogs and wading birds. *M. albus* consumes crayfish, tadpoles, small fish, and worms. They can eat some larger prey as well, by grabbing them with their mouths, and spinning until they are torn in half. *M. albus* may also play a role in altering the habitat beneath ponds and marshy regions where they burrow nests to wait out dry seasons. Declines in native centrarchids from some areas of the United States have been attributed to this species (Nico, 1999).

Pathway
M. albus was originally brought to Hawaii by Asian immigrants as a food fish, and purposely released into the wild (Bricking, 2002).

Principal source: *Asian Swamp Eel* (Bricking, 2002)

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

Review: Anon

Pubblication date: 2005-06-26

ALIEN RANGE

[3] UNITED STATES

BIBLIOGRAPHY
10 references found for **Monopterus albus**

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).
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]
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Summary: Available from: http://www.doc.govt.nz/upload/documents/science-and-technical/sfc283entire.pdf [Accessed 20 March 2008]
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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.
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General information

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Available from: http://www.columbia.edu/itc/cerc/danoff-burg/invasion_bio/inv_spp_summ/Monopterus_albus.html [Accessed 29 July 2003].
FishBase, 2005. Species profile *Monopterus albus* Swamp eel
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=4663 [Accessed 21 March, 2005]
ITIS (Integrated Taxonomic Information System), 2005. Online Database *Monopterus albus*
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=Monopterus+albus&p_format=&p_ifx=plglt&p_lang= [Accessed March 2005]
Nico, L., 2001. *Monopterus albus* Nonindigenous Aquatic Species Database, Gainesville, FL.
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