GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Poecilia reticulata***

Poecilia reticulata 正體中文 **System:** Freshwater

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Cyprinodontiformes	Poeciliidae

Common name millions (English), guppii (Japanese), miljoonakala (Finnish), guppie (Afrikaans), Mexicano (Portuguese), miljoenvis (Afrikaans), guppy (English), million fish (English), lebistes (Portuguese), lareza tripikaloshe (Albanian), lepistes (Turkish), ikan seribu (Malay), hung dzoek ue (Cantonese), millionenfisch (German), poisson million (French), zivorodka duhov (Czech), Wilder Riesenguppy (German), queue de voile (French), Sardinita (Spanish), rainbow fish (English), sarapintado (Portuguese)

Synonym
Poecilioides reticulatus , (Peters, 1859)
Acanthophacelus reticulatus , (Peters, 1859)
Girardinus reticulatus , (Peters, 1859)
Haridichthys reticulatus , (Peters, 1859)
Lebistes reticulatus , (Peters, 1859)
Poecilia reticulatus , Peters, 1859
Lebistes poeciloides , De Filippi, 1861
Lebistes poecilioides , De Filippi, 1861
Girardinus guppii , Günther, 1866
Acanthophacelus guppii , (Günther, 1866)
Heterandria guppyi , (Günther, 1866)

Similar species

Summary Poecilia reticulata is a small benthopelagic fish native to Brazil, Guyana, Venezuela and the Caribbean Islands. It is a popular aquarium species and is also commonly used in genetics research. In the past Poecilia reticulata was widely introduced for mosquito control but there have been rare to non-existing measurable effects on mosquito populations. It can occupy a wide range of aquatic habitats and is a threat to native cyprinids and killifishes. It is a carrier of exotic parasites and is believed to play a role in the decline of several threatened and endangered species.

view this species on IUCN Red List

Species Description
Poecilia reticulata is a very small opportunistic benthopelagic (feeding on bottom, midwaters, or near the surface) non-migratory fish that can inhabit both fresh and brackish water.*P. reticulata* males are smaller, reaching an average length of 3.5cm compared 5cm in females. Besides being half the size of females, males have a colourful tail and caudal fin. This species has 7-8 dorsal soft rays and 8-10 anal soft rays (FishBase, 2006).

Uses
Poecilia reticulata is a popular aquarium species and is also commonly used in genetics research. In the past *P. reticulata* was widely introduced in hopes of gaining mosquito control, but there have been rare to non-existing measurable effects on mosquitoes populations (FishBase, 2006).

Habitat Description
Occurs in warm springs and their effluents, weedy ditches and canals. Found in various habitats, ranging from highly turbid water in ponds, canals and ditches at low elevations to pristine mountain streams at high elevations. Has a wide salinity range but requires fairly warm temperatures (23-24 °C) and quiet vegetated water for survival (FishBase, 2006).

Reproduction
Male *Poecilia reticulata* anal fins are transformed into a gonopodium for internal fertilization. Males are continuously chasing and mating females. Females can store sperms for later fertilization and may produce young every four weeks. Pregnant females are recognizable by black triangle between anal and pelvic fins. After a gestation period of four to six weeks females give birth to 20-40 live young. No parental care is exercised and parents may even prey on their young (FishBase, 2006).

Nutrition
Feeds on zooplankton, small insects and detritus. Feeds mainly on insects and has been observed consuming: ceratopogonids, chironomids, culicids, dipterans, hemipterans, and hymenopterans (FishBase, 2006).

General Impacts
Poecilia reticulata is considered a hazard to native cyprinids and killifishes in the United States. It has been implicated in the decline of native fishes in Nevada and Wyoming, and of native damselflies in Hawaii. It is a known carrier of trematode parasites, which may affect native fish populations (Nico, 2001). It eats the eggs of native fish species and acts as a host for the parasitic nematode *Camallanus cotti*, and the Asian tapeworm *Bothriocephalus acheilognathi* in Hawaii (Eldredge, 2000).

Hybrids between *P. reticulata* and *P. mexicana* and between *P. reticulata* and *Xiphophorus helleri* are shown to threaten species of native fish in the western USA (Courtenay and Meffe, 1989 in Eldredge, 2000).

Pathway
P. reticulata is a popular aquarium species (FishBase, 2006). Guppies are also popular ornamental fish in Australia, and introductions may have resulted from escapes or releases from aquaria or outdoor breeding ponds (Linholm *et al.*, 2005 i

Principal source: *Poecilia reticulata - Guppy* (Fishbase, 2006)

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] ALGERIA
[1] BAHRAIN
[1] CHINA
[1] CONGO
[1] COSTA RICA
[2] FRENCH POLYNESIA
[1] GUADELOUPE
[1] INDONESIA
[5] AUSTRALIA
[1] CANADA
[1] COMOROS
[1] COOK ISLANDS
[1] FRANCE
[1] GHANA
[1] GUAM
[1] IRELAND

[1] JAPAN
[1] LAO PEOPLE'S DEMOCRATIC REPUBLIC
[1] MARTINIQUE
[2] MAYOTTE
[1] MOROCCO
[1] NAMIBIA
[1] PAPUA NEW GUINEA
[1] PERU
[1] REUNION
[1] SINGAPORE
[1] SURINAME
[1] THAILAND
[17] UNITED STATES
[1] KENYA
[1] MALAYSIA
[1] MAURITIUS
[1] MEXICO
[1] MYANMAR
[3] NEW CALEDONIA
[1] PARAGUAY
[1] PHILIPPINES
[1] SENEGAL
[1] SOUTH AFRICA
[1] TANZANIA, UNITED REPUBLIC OF
[1] UGANDA
[1] VIET NAM

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Managment information

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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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Summary: Available from: http://sisbib.unmsm.edu.pe/BVrevistas/biologia/v17n2/pdf/a07v17n2.pdf [Accessed 23 February 2011]

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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.
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].

General information

CONABIO. 2008. Sistema de informaci□n sobre especies invasoras en M□xico. Especies invasoras - Peces. Comisi□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□n sobre especies invasoras de m□xico cuenta actualmente con informaci□n aceca de nombre cient□fico, familia, grupo y nombre com□n, as□ como h□bitat, estado de la invasi□n en M□xico, rutas de introducci□n y ligas a otros sitios especializados. Algunas de las especies de mayor riesgo ya tienen una liga directa a la p□gina de alertas. Es importante resaltar que estas listas se encuentran en constante proceso de actualizaci□n, por favor consulte la portada (http://www.conabio.gob.mx/invasoras/index.php/Portada), en la secci□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]
FishBase, 2006. *Poecilia reticulata* .
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
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Summary: Available from: http://www.gbif.net/species/13538255/ [Accessed 15 June 2010]
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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.
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Summary: Cet article propose un bilan de la connaissance des esp□ces de poissons et des crustac□s d□capodes pr□sents dans les eaux douces de La R□union avec une synth□se des esp□ces introduites.
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Summary: Cet article propose un bilan complet et actualis□ des introductions d esp□ces de poissons et de crustac□s d□capodes dans les eaux douces de Nouvelle-Cal□donie.
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Summary: Synth□se des introductions d esp□ces de vert□br□s en Nouvelle-Cal□donie et □valuation de leurs impacts.