GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Lutjanus kasmira***

Lutjanus kasmira 正體中文

System: Marine

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Perciformes	Lutjanidae

Common name

kunyit (Malay, Malaysia), hamra (Arabic, Oman), common blue-stripe snapper (English, Papua New Guinea), nisar (Arabic, Oman), blouband snapper (Afrikaans, South Africa), common bluestripe snapper (English), kuning-kuning (Malay, Malaysia), ikan nonya (Malay, Christmas Island), bluestripe snapper (English, Christmas Island), hobara (Arabic, Saudi Arabia), gorara tikus (Malay, Indonesia), taape (English), yosuji-fuedai (Japanese, Japan), yellow and blue seaperch (English, USA), madras (French, Seychelles), blueline snapper (English), vivaneau à raies bleues (French, Djibouti, France), bluestripe seaperch (English), merah (Malay, Malaysia), blue-lined sea perch (English, French Polynesia), kunyit-kunyit (Malay, Malaysia), bluestriped snapper (English, USA), blue-banded hussar (English), tanda-tanda (Malay, Malaysia), bluebanded snapper (English, South Africa), irri ranna (Sinhalese, Sri Lanka), pargo de raios azuis (Portuguese, Mozambique), savane (Samoan, Samoa), pla kapong (Thai, Thailand), pla ka pong deng thab nam ngern (Thai, Thailand), kelea (Swahili, United Republic of Tanzania), janja (Swahili, United Republic of Tanzania), blue-lined snapper fish (English), bluelined snapper (English, Guam, Micronesia (Federated States of), Niue), pargo de rayas (Spanish), vali ranna (Sinhalese, Sri Lanka), pargo de rayas azules (Spanish, Spain), verikeechan (Tamil, Sri Lanka), tembo-uzi (Swahili, United Republic of Tanzania), mbawaa (Swahili, Kenya), common bluestriped snapper (English), naisarah (Arabic, Kuwait, Saudi Arabia), nga-wet-panni (Burmese, Myanmar), perche à raies bleues (French)

Synonym

Similar species

Lutjanus quinquelineatus

Summary

Lutjanus kasmira is a commercially important reef-associated tropical fish that has been introduced into Hawaii for fisheries. In introduced areas of Hawaii it has become abundant, forming dense schools. It may outcompete native fish for space, crowding them out of important refuge areas.

view this species on IUCN Red List

Species Description

The bluestripe snapper is bright yellow above and white below, with four blue stripes running horizontally across the sides. Fine grey stripes occur ventrally. The fins are mostly yellow (Australian Museum 2006). The male *L. kasmira* can reach a total maximum length of 40cm. Numbers of rays and spines are as follows: dorsal spines: 10 – 10, dorsal soft rays: 14 – 15, anal spines: 3 and anal soft rays: 7 – 8 (FishBase 2006).

Notes

The population doubling time of the bluestripe snapper is estimated to be between 1.4 and 4.4 years (FishBase 2006).

Uses
Snappers (Lutjanidae) are among the most important food fishes in the Caribbean (Munro 1983, Allen 1985, Claro 1991, in Heyman *et al*. 2005). The bluestripe snapper is an important commercial and gamefish species. It is also an aquarium fish (FishBase 2006).

Habitat Description
Bluestripe snapper are reef-associated tropical fish with a temperature range of 20°C to 28°C and a depth range of 3 metres to 265 metres (FishBase 2006). They inhabits coral reefs, occurring in both shallow lagoons and outer reefs and are frequently found in large aggregations around coral, caves or wrecks. Juveniles often inhabit seagrass beds around patch reefs (FishBase 2006) and as they grow move from fringe areas toward the main reef (Friedlander *et al*. 2002). Studies in Hawaii show that *L. kasmira* forms schools along the reefs' edges during the day and forages nocturnally further away from the reef at night. This routine nightly migration leads them to forage on soft-bottomed habitat up to 100 metres from the reef-sand interface (DeFelice and Parrish 2003). In Hawaii the largest individuals occur singly or in small groups on shallow reef slopes while smaller individuals occur in larger groups on the deep slopes and in spur-and-groove habitat (Friedlander *et al*. 2002).

Reproduction
There is a limited understanding about the reproductive habits of snapper, particularly spawning (Heyman *et al*. 2005). Bluestripe snapper take part in a courtship ritual in which males use their snout to nuzzle, nudge and rub the undersides of females (Heyman *et al*. 2005). Pairs also dance together in spirals towards the surface (Suzuki and Kioki, 1979 in Heyman *et al*. 2005).

Nutrition
The bluestripe snapper feeds on shrimps, fish, stomatopods, crabs, cephalopods, and planktonic crustaceans. It also takes a variety of algae (FishBase 2006). In an Hawaiian-based study by DeFelice and Parrish (2003) the stomachs of *L. kasmira* (10.0–17.9cm SL) were found to contain mainly small caridean shrimps (especially Ogyrididae) as well as penaeid shrimp, small cryptic fishes, stomatopods (a type of crustacean) and portunid crabs.
Levels of piscivory (fish-eating diet) of the fish can vary with temporal changes in prey abundance. In the Great Barrier Reef, *L. kasmira* shifts to a more piscivorous diet during summer when the young of many species settle on the reef (John 2001). In Hawaii an estimated 40% of its diet is fish (Russo 1994).

General Impacts
In Hawaii bluestripe snapper share the same habitat with native fishes such as goatfish *Mulloidichthys sp*. (Friedlander *et al*. 2002). This may result in competition for habitat use and food sources. Evidence has been documented which suggests that bluestripe snapper may displace native fish from important refuge habitat. Competition for shelter appears to be the most significant impact detected, with the dominant *L. kasmira* able to displace native fish from areas of the reef which offer protection (Schumacher and Parrish 2005). It has also been argued that the deliberate introduction of *L. kasmira* in Hawaii has lead to the replacement of many other locally important catch species (Russo 1994; FAO 2001). However this remains a controversial topic and more research investigating the ecological niche of *L. kasmira* is needed. Disease transmission to native fish may also occur (Work *et al*. 2003).

Management Info
Unable to locate any management information for this species.

Pathway
L. kasmira is a demersal (bottom-dwelling) species which has been translocated to new locations intentionally by humans for recreational fishing. For example it was introduced to Hawaii from French Polynesia for food and sport fishing (Friedlander *et al*. 2002).

Principal source: FishBase 2006 *Lutjanus kasmira*

Compiler: IUCN/SSC Invasive Species Specialist Group (ISSG) with support from La Fondation d'entreprise Total

Review: J.D. Parrish. Associate Prof. of Zoology. University of Hawaii, Honolulu, Hawaii USA

Pubblication date: 2007-06-05

ALIEN RANGE

[7] UNITED STATES

[1] UNITED STATES MINOR OUTLYING ISLANDS

BIBLIOGRAPHY

24 references found for **Lutjanus kasmira**

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]
The guidance document is available from http://www.cefas.co.uk/media/118009/fisk_guide_v2.pdf [Accessed 13 January 2009].

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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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

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Summary: This multimedia database is designed to integrate both scientific and traditional information on Cook Islands flora and fauna.
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