The current status and distribution of freshwater fishes in the Pacific Islands of Oceania

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Economic growth and a rising human population (now approximately 7 million people), is placing ever-increasing demands on the natural resources Island countries. Resources are of Pacific vulnerable to over-harvesting, deforestation, coastal development and agricultural expansion: habitats are being degraded, fragmented, or completely destroyed. Added to this are the increasing impacts of invasive alien species and climate change, which present serious threats to the many rare and endemic species found in the Pacific, and which in turn affect the livelihoods of the people who rely on these species for their livelihoods. There is therefore an urgent need to implement effective conservation measures to safeguard the ecosystem resources of the region. However, the lack of basic data on species, out-of-date information, and poorly studied areas means that very little is known about the majority of species in the region: without this baseline data, it is extremely difficult, if not impossible, to implement conservation plans.

In 2007, IUCN Oceania, in partnership with the Secretariat of the Pacific Regional Environment Programme (SPREP), and Conservation International, initiated a process to build capacity and improve knowledge and information on Pacific Island species. A species' conservation status is one of the most useful signs for assessing the condition of an ecosystem and its biodiversity, and this process would therefore provide much needed baseline data to enable governments, communities and other organizations to implement effective onthe-ground conservation planning and management. Funding was received from the Critical Ecosystem Partnership Fund (CEPF) and

the Fonds Pacifique to begin this process, by carrying out biodiversity assessments for freshwater fishes, land snails and reptiles.

The project established a regional network of experts who were trained to carry out biodiversity assessments according to the IUCN Red List Categories and Criteria. The resulting species' accounts are based on evaluations made during two IUCN workshops held in Fiji in 2010, and contain information on each species' conservation status, distribution and relative risk of extinction. The accounts are available through the IUCN Red List of Threatened Species[™] (IUCN Red List) website (www.iucnredlist.org). Major threats and recommendations for conservation action are also identified.

Assessments for freshwater fishes primarily focused on species found in the Polynesia-Micronesia Hotspot as defined by the Critical Ecosystem Partnership Fund, with a particular focus on endemic species. The Polynesia-Micronesia hotspot includes the following countries: American Samoa, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, Niue, Northern Mariana Islands, Palau, Pitcairn Islands, Samoa, Tonga, Tokelau, Tuvalu, Wallis and Futuna. Where expertise was available, species found in Melanesia (Solomon Islands, Vanuatu, Papua New Guinea, New Caledonia and Norfolk Island) and wider-ranging species were also assessed. Freshwater fishes were defined as those species that spend all or a critical part of their life cycle in freshwaters.



Lentipes kaaea, LC Originally thought to be endemic to New Caledonia, this species has recently been recorded from Solomon Islands, Vanuatu, Fiji, and Futuna. It is locally common in New Caledonia and Vanuatu and there are currently no major threats known. © *E. Vigneux*

Results

Assessments were carried out for 167 species of freshwater fishes native to Micronesia, Polynesia and Melanesia. This summary presents the major results of the project and is intended to be read in conjunction with individual species' accounts available on the IUCN Red List website.

(1) Conservation status of freshwater fishes

The majority of species (91 species, representing 53%) have been assessed as Least Concern (LC) (see Figure 1). Generally, these species are widely distributed with no known major threats impacting them and have a lower risk of extinction. Due to a

lack of information, the extinction risk could not be evaluated for 63 species (39%), which have been categorized as Data Deficient. Of the species for which sufficient data are available, 12 species (8%) are considered to be threatened (in categories Critically Endangered, Endangered or Vulnerable) see Figure 1 and Table 1). Three species (2%) are assessed as Critically Endangered (CR) - the highest level of threat that can be assigned to a species in the wild; eight species (5%) have been assessed as Endangered (EN) and one species is assessed as Vulnerable (VU). A further two species almost meet the thresholds for threatened species and are listed as Near Threatened (NT). The Red List Category of threat assigned to each of the 167 species is given in Appendix 1.

Order	Family	Species	Category	Criteria	Country
OSMERIFORMES	GALAXIIDAE	Galaxias neocaledonicus	EN	B1ab(iii,v)+2ab(iii,v)	New Caledonia
PERCIFORMES	GOBIIDAE	Akihito futuna	CR	B1ab(ii,iii)	Wallis and Futuna
PERCIFORMES	GOBIIDAE	Sicyopterus eudentatus	EN	B1ab(ii,iii,iv)	Federated States of Micronesia
PERCIFORMES	GOBIIDAE	Sicyopterus rapa	EN	B1ab(iii)+2ab(iii)	French Polynesia (Tubuai Islands)
PERCIFORMES	GOBIIDAE	Sicyopterus sarasini	EN	B2ab(ii,iii)	New Caledonia
PERCIFORMES	GOBIIDAE	Smilosicyopus sasali	EN	B1ab(ii,iii)+2ab(ii,iii)	Wallis and Futuna
PERCIFORMES	GOBIIDAE	Stenogobius keletaona	VU	D2	Wallis and Futuna
PERCIFORMES	GOBIIDAE	Stiphodon discotorquatus	CR (PE)	B1ab(ii,iii)+2ab(ii,iii)	French Polynesia (Tubuai Islands)
PERCIFORMES	GOBIIDAE	Stiphodon rubromaculatus	CR	B1ab(ii,iii)	Wallis and Futuna
PERCIFORMES	GOBIIDAE	Stiphodon julieni	EN	B1ab(iii)+2ab(iii)	French Polynesia (Tubuai Islands)
PERCIFORMES	POMACENTRIDAE	Neopomacentrus aquadulcis	EN	B2ab(ii,iii)	Papua New Guinea and Solomon Islands
PERCIFORMES	RHYACICHTHYIDAE	Protogobius attiti	EN	B2ab(i,ii,iii)	New Caledonia

Table 1: Freshwater fishes listed as threatene
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Stiphodon julieni, EN. Endemic to French Polynesia, this species is known from three locations (3 rivers) on the small island of Rapa. It is experiencing a continuing decline in the quality of its habitat, largely caused by deforestation. © E. Vigneux



n=167

Figure 1: All species assessed by conservation status





Figure 3: All species assessed by country and conservation status



(2) Spatial distribution

Geographically, the highest diversity of freshwater fishes is seen in the west of the region (Melanesian countries) and generally declines eastwards from Micronesia into Polynesia. Some of the observed variation in species richness is a result of differences in sampling intensity: Melanesia, French Polynesia, Wallis and Futuna and the Samoan islands have been sampled more frequently in recent years and more data are therefore available. In addition, many of the islands in Micronesia and Polynesia are low-lying and contain fewer river systems, which means that fish diversity is skewed towards the high island countries of the western Pacific. Figure 3 shows the number of species assessed by country and conservation status and Figures 7 and 8 show species richness across the region.

Endemism

A quarter of assessed species are endemic to single countries, and indeed single islands within countries (see Figure 2). For example, Stiphodon julieni (EN) is only recorded from the island of Rapa in the Tubuai Islands of French Polynesia and Akihito vanuatu (LC) is restricted to two islands in Vanuatu: Ambae and Pentecost, By country, French Polynesia contains the highest number of assessed

endemic species, whilst Wallis and Futuna contains the highest number of threatened endemic species. A further 40% of species are regionally endemic to the Pacific Islands region. In terms of threat status, the number of Least Concern species is far lower for endemics than for freshwater fishes as a whole -16% of endemics compared to 90% for all assessed fishes. It should also be noted that (aside from Neopomacentrus aquadulcis, found in Solomon Islands and Papua New Guinea) all fishes listed as threatened are endemic to a single country - see Figure 4 and Table 1. These figures are indicative of endemic/restricted range species being more susceptible to threats than wider-ranging species.

Distribution by habitat

The majority of species live in permanent freshwater rivers, and in estuarine and mangrove areas: 83% inhabit freshwater and/or estuarine habitats, 42% of which are confined solely to freshwaters, and 41% living in freshwater and estuarine habitats. Over half of all assessed species are migratory, moving from freshwater rivers to the sea for spawning. Figure 5 shows the habitat types within each major system that all species are recorded from. The twelve threatened species and most endemic species are also confined to freshwaters and/or estuarine area. As these are restricted range species, found in only a small number of river systems, it is not surprising that any major threats would impact them.

Figure 4: Endemic species by country and conservation status





Figure 5: Major habitat types for freshwater fishes

(3) Population trends

Being able to determine a species' population trend is critical to assessing a species' conservation status. Approximately 5% of the freshwater fish species assessed are thought to be declining; 20% are considered stable, and no populations were thought to be increasing – see Figure 6. However, due to the large number of species for which there are no population data on size or trends, the trends for three quarters of the fishes assessed are unknown.







River system on the high island of Viti Levu, Fiji © Helen Pippard





(4) Major threats

The major threats to each species were coded using the IUCN Threats Classification Scheme (see http://www.iucnredlist.org/technical-

documents/classificationschemes) and are discussed in each species' account. Major threats identified include the following:

Sedimentation from deforestation and agriculture The removal of forest cover, the conversion of land to agriculture (small and large scale), and farming, results in sedimentation which is a serious threat to many fish species. Many fishes are migratory and some (e.g. gobies) require clear rocks and river bottoms to physically move along the river bed – sedimentation interferes with this passage.

Pollution from agriculture and mining Pollution often results from the use of herbicides and pesticides in small holder farming and subsistence farming, for example in the production of Taro (Wallis and Futuna) and for Sakau (Federated States of Micronesia). The effects of this can have a detrimental impact on the overall health of river systems, and directly cause injury or mortality to fish populations. Some river systems (e.g. in New Caledonia) are currently at risk from mining: waste material can result in a rise in the level of river beds, clogging of stream beds, and cause flooding downstream. Run-off from pesticides, herbicides and mining effluents

The existence or construction of dams Many fishes require long distance migrations to fulfill their life cycle, and the existence of dams can block the movement down or upstream.

Overharvesting Although not seen as a major threat to many species, the harvesting of fishes for subsistence or for the aquarium trade is something that should be monitored in the future. A number of fishes are currently caught by humans for food, often as small fry during their upstream migration.

Introduction of alien invasive species Whilst alien fish species pose a major threat to indigenous fish populations in many parts of the world, their impacts are not well known in the Pacific. The invasive species most often seen in the Pacific are Tilapia (*Oreochromis spp*), which have been introduced in order to enhance fisheries.

(5) Research and conservation needs

As part of each species assessment, research and conservation actions were identified for each species: these are summarized in Figures 9 and 10. Almost every species requires further information on population size, distribution and trends (161 out of 167 species). Just over a quarter of all species require further taxonomic work. Improving our understanding of basic ecology, life history, and threats is vital to enable us to conserve and protect freshwater fishes and their habitats. The number of identified conservation actions is low, because it is difficult to assess such requirements without the existence of species-specific data.



Figure 9: Identified research and monitoring needs

Figure 10: Conservation Actions identified from species assessments



(6) Conclusions

Despite a lack of data for many species, by analyzing the identified threats, actions can be suggested to enable us to move towards better protection of freshwater fishes and their habitats in the Pacific. The following conservation recommendations are suggested:

- Modification of habitat, including agriculture To protect species and habitats from sedimentation, regeneration of vegetation should be promoted. Planting of natural vegetation adjacent to river systems will stabilize and protect river margins from run-off due to deforestation and agriculture
- Pollution from agriculture and mining Pollution laws should be enacted and enforced, best agricultural practices should be adopted, and effluent treatment plants be constructed for industry such as mining
- **Dams** Any new dam construction should be managed to ensure the provision of fish passage, and the option of fish ladders should be investigated for existing and new dams
- Overharvesting Stakeholders should be educated in sustainable biological resource use, and relevant legislation to protect and conserve freshwater fishes and their habitats should be developed and implemented.
- **Invasive species** Future introductions of invasive species should be prevented by imposing strict legislation covering rivers and lakes where they are not native.

Application of Results and Future Work

The information gathered for each species is freely available to download from the IUCN Red List

website (<u>www.iucnredlist.org</u>). The data in each species account provides a key resource for decision-makers, policy-makers, resource managers, environmental planners and NGOs. It is anticipated that this information will be used to enable monitoring and conservation action at country, regional and international levels: data can be applied to inform legislation and policies, to identify priority sites for biodiversity conservation and to prepare and implement species recovery plans for threatened freshwater fishes.

In the future, stakeholders should work to:

- Carry out further research on population, threats, ecological requirements and taxonomy, in order to complete assessments for fishes not included in this project and for threatened and Data Deficient species. This will enable the production of a comprehensive dataset for freshwater fishes across the Pacific Islands.
- Regularly revise the data for freshwater fishes assessed, in order to monitor the changing status of populations and to ascertain whether any recommended conservation measures put in place are working.
- Examine species' distributions in more detail in order to identify key priority areas for conservation and protection of freshwater fishes and their habitats.

This project is the beginning of a process that aims to comprehensively assess species of the Pacific Islands, according to the IUCN Red List Categories and Criteria. This first stage has focused on Red List assessments for freshwater fishes, land snails, and reptiles in the Pacific Islands of Oceania. Future work is planned on other taxonomic groups such as select invertebrates, plants and coral reef fishes in order to create a comprehensive dataset to guide conservation actions in the Pacific Islands.

Appendix 1: Red List status of Pacific Island Freshwater Fishes

Order	Family	Species	Red List Category	Criteria	Endemic to region	Endemic to single country
Anguilliformes	Muraenidae	Gymnothorax polyuranodon	LC			
Anguilliformes	Ophichthidae	Lamnostoma orientalis	LC			
Anguilliformes	Ophichthidae	Lamnostoma polyophthalma	LC			
Atheriniformes	Atherinidae	Bleheratherina pierucciae	DD			New Caledonia
Beloniformes	Hemiramphidae	Zenarchopterus caudovittatus	DD		Yes	
Beloniformes	Hemiramphidae	Zenarchopterus dispar	LC			
Beloniformes	Hemiramphidae	Zenarchopterus gilli	LC			
Elopiformes	Megalopidae	Megalops cyprinoides*	DD			
Mugiliformes	Mugilidae	Cestraeus goldiei	DD			
Mugiliformes	Mugilidae	Cestraeus oxyrhyncus	DD			
Mugiliformes	Mugilidae	Cestraeus plicatilis	DD			
Mugiliformes	Mugilidae	Chelon macrolepis	LC			
Mugiliformes	Mugilidae	Chelon melinopterus	LC			
Mugiliformes	Mugilidae	Crenimugil crenilabis	LC			
Mugiliformes	Mugilidae	Crenimugil heterocheilos	LC			
Mugiliformes	Mugilidae	Liza tade	DD			
Mugiliformes	Mugilidae	Mugil cephalus	LC			
Osmeriformes	Galaxiidae	Galaxias neocaledonicus	EN	B1ab(iii,v)+2ab(iii,v)		New Caledonia
Perciformes	Ambassidae	Ambassis interrupta	LC			
Perciformes	Ambassidae	Ambassis macracanthus	DD			
Perciformes	Ambassidae	Ambassis miops	LC			
Perciformes	Ambassidae	Ambassis nalua	LC			
Perciformes	Ambassidae	Ambassis urotaenia	LC			
Perciformes	Ambassidae	Ambassis vachellii	LC			
Perciformes	Apogonidae	Apogon amboinensis	DD			
Perciformes	Apogonidae	Apogon hyalosoma	LC			
Perciformes	Apogonidae	Ostorhinchus lateralis	LC			
Perciformes	Blenniidae	Meiacanthus anema	DD			
Perciformes	Blenniidae	Omobranchus ferox	LC			
Perciformes	Blenniidae	Omox biporos	DD			
Perciformes	Eleotridae	Belobranchus belobranchus	DD			
Perciformes	Eleotridae	Bostrychus sinensis*	LC			

Perciformes	Eleotridae	Bostrychus zonatus	DD			
Perciformes	Eleotridae	Bunaka gyrinoides	LC			
Perciformes	Eleotridae	Butis amboinensis	LC			
Perciformes	Eleotridae	Butis butis	LC			
Perciformes	Eleotridae	Eleotris acanthopoma	LC			
Perciformes	Eleotridae	Eleotris fusca	LC			
Perciformes	Eleotridae	Eleotris melanosoma	LC			
Perciformes	Eleotridae	Giuris margaritacea	LC			
Perciformes	Eleotridae	Hypseleotris cyprinoides	DD			
Perciformes	Eleotridae	Ophiocara porocephala*	LC			
Perciformes	Gerreidae	Gerres filamentosus*	LC			
Perciformes	Gobiidae	Akihito futuna	CR	B1ab(ii,iii)+2ab(ii,iii)		Wallis and Futuna
Perciformes	Gobiidae	Akihito vanuatu	LC			Vanuatu
Perciformes	Gobiidae	Awaous acritosus	LC		Yes	
Perciformes	Gobiidae	Awaous guamensis	LC		Yes	
Perciformes	Gobiidae	Awaous ocellaris	LC		Yes	
Perciformes	Gobiidae	Caragobius urolepis*	LC			
Perciformes	Gobiidae	Drombus halei	LC		Yes	
Perciformes	Gobiidae	Exyrias puntang	LC			
Perciformes	Gobiidae	Glossogobius aureus	LC			
Perciformes	Gobiidae	Glossogobius bicirrhosus	LC			
Perciformes	Gobiidae	Glossogobius celebius	DD			
Perciformes	Gobiidae	Glossogobius giurus*	LC			
Perciformes	Gobiidae	Lentipes kaaea	LC		Yes	
Perciformes	Gobiidae	Lentipes rubrofasciatus	DD			French Polynesia
Perciformes	Gobiidae	Lentipes solomonensis	DD			Solomon Islands
Perciformes	Gobiidae	Lentipes venustus	DD		Yes	
Perciformes	Gobiidae	Mangarinus waterousi	DD			
Perciformes	Gobiidae	Mugilogobius cavifrons	LC			
Perciformes	Gobiidae	Mugilogobius fusculus	DD			Papua New Guinea
Perciformes	Gobiidae	Mugilogobius notospilus	LC		Yes	
Perciformes	Gobiidae	Mugilogobius platystoma	LC			
Perciformes	Gobiidae	Oligolepis acutipennis	DD			
Perciformes	Gobiidae	Oligolepis stomias	DD			
Perciformes	Gobiidae	Psammogobius biocellatus	LC			

Perciformes	Gobiidae	Pseudogobius poicilosoma	LC			
Perciformes	Gobiidae	Redigobius balteatus	LC			
Perciformes	Gobiidae	Redigobius bikolanus	LC			
Perciformes	Gobiidae	Redigobius chrysosoma	LC			
Perciformes	Gobiidae	Redigobius lekutu	DD			Fiji
Perciformes	Gobiidae	Redigobius leveri	DD			Fiji
Perciformes	Gobiidae	Redigobius oyensi	DD			
Perciformes	Gobiidae	Redigobius tambujon	LC			
Perciformes	Gobiidae	Schismatogobius fuligimentus	DD			New Caledonia
Perciformes	Gobiidae	Schismatogobius vanuatuensis	DD			Vanuatu
Perciformes	Gobiidae	Schismatogobius vitiensis	LC			Fiji
Perciformes	Gobiidae	Sicyopterus aiensis	NT			Vanuatu
Perciformes	Gobiidae	Sicyopterus cynocephalus	DD			
Perciformes	Gobiidae	Sicyopterus eudentatus	EN	B1ab(ii,iii,iv)		Federated States of Micronesia
Perciformes	Gobiidae	Sicyopterus lagocephalus	LC			
Perciformes	Gobiidae	Sicyopterus lividus	LC			Federated States of Micronesia
Perciformes	Gobiidae	Sicyopterus longifilis	DD			
Perciformes	Gobiidae	Sicyopterus marquesensis	DD			French Polynesia
Perciformes	Gobiidae	Sicyopterus micrurus	DD			
Perciformes	Gobiidae	Sicyopterus ouwensi	DD			
Perciformes	Gobiidae	Sicyopterus pugnans	LC			_
Perciformes	Gobiidae	Sicyopterus rapa	EN	B1ab(iii)+2ab(iii)		French Polynesia
Perciformes	Gobiidae	Sicyopterus sarasini	EN	B2ab(ii,iii)		New Caledonia
Perciformes	Gobiidae	Sicyopus discordipinnis	DD			
Perciformes	Gobiidae	Sicyopus nigriradiatus	LC			Federated States of Micronesia
Perciformes	Gobiidae	Sicyopus zosterophorus	LC			
Perciformes	Gobiidae	Smilosicyopus bitaeniatus	DD			French Polynesia
Perciformes	Gobiidae	Smilosicyopus chloe	LC		Yes	
Perciformes	Gobiidae	Smilosicyopus fehlmanni	LC			
Perciformes	Gobiidae	Smilosicyopus leprurus	DD		Yes	
Perciformes	Gobiidae	Smilosicyopus sasali	EN	B1ab(ii,iii)+2ab(ii,iii)		Wallis and Futuna
Perciformes	Gobiidae	Stenogobius alleni	DD			Papua New Guinea

Perciformes	Gobiidae	Stenogobius beauforti	LC		Yes	
Perciformes	Gobiidae	Stenogobius caudimaculosus	DD			French Polynesia
Perciformes	Gobiidae	Stenogobius fehlmanni	LC			
Perciformes	Gobiidae	Stenogobius genivittatus	LC			French Polynesia
Perciformes	Gobiidae	Stenogobius hoesei	LC		Yes	
Perciformes	Gobiidae	Stenogobius keletaona	VU	D2		Wallis and Futuna
Perciformes	Gobiidae	Stenogobius laterisquamatus	LC		Yes	
Perciformes	Gobiidae	Stenogobius marqueti	DD			French Polynesia
Perciformes	Gobiidae	Stenogobius psilosinionus	DD		Yes	
Perciformes	Gobiidae	Stenogobius randalli	DD			French Polynesia
Perciformes	Gobiidae	Stenogobius squamosus	DD			French Polynesia
Perciformes	Gobiidae	Stenogobius watsoni	DD			Papua New Guinea
Perciformes	Gobiidae	Stenogobius yateiensis	LC		Yes	
Perciformes	Gobiidae	Stiphodon astilbos	DD			Vanuatu
Perciformes	Gobiidae	Stiphodon atratus	LC		Yes	
Perciformes	Gobiidae	Stiphodon birdsong	LC		Yes	
Perciformes	Gobiidae	Stiphodon caeruleus	LC			Federated States of Micronesia
Perciformes	Gobiidae	Stiphodon discotorquatus	CR	B1ab(ii,iii)+2ab(ii,iii)		French Polynesia
Perciformes	Gobiidae	Stiphodon elegans	LC			
Perciformes	Gobiidae	Stiphodon hydroreibatus	DD			
Perciformes	Gobiidae	Stiphodon julieni	EN	B1ab(iii)+2ab(iii)		French Polynesia
Perciformes	Gobiidae	Stiphodon kalfatak	DD			Vanuatu
Perciformes	Gobiidae	Stiphodon larson	DD			Papua New Guinea
Perciformes	Gobiidae	Stiphodon mele	DD		Yes	
Perciformes	Gobiidae	Stiphodon oatea	NT			French Polynesia
Perciformes	Gobiidae	Stiphodon pelewensis	DD			
Perciformes	Gobiidae	Stiphodon percnopterygionus	DD			
Perciformes	Gobiidae	Stiphodon rubromaculatus	CR	B1ab(ii,iii)+2ab(ii,iii)		Wallis and Futuna
Perciformes	Gobiidae	Stiphodon rutilaureus	LC		Yes	
Perciformes	Gobiidae	Stiphodon sapphirinus	LC		Yes	
Perciformes	Gobiidae	Stiphodon semoni	DD			
Perciformes	Gobiidae	Stiphodon tuivi	LC			French Polynesia
Perciformes	Gobiidae	Taenioides cirratus	DD			

Perciformes	Haemulidae	Plectorhinchus gibbosus	LC			
Perciformes	Haemulidae	Pomadasys argenteus	LC			
Perciformes	Kuhliidae	Kuhlia malo	DD			French Polynesia
Perciformes	Kuhliidae	Kuhlia marginata	LC			
Perciformes	Kuhliidae	Kuhlia mugil	LC			
Perciformes	Kuhliidae	Kuhlia munda	DD			
Perciformes	Kuhliidae	Kuhlia rupestris	LC			
Perciformes	Kuhliidae	Kuhlia salelea	DD			
Perciformes	Leiognathidae	Aurigequula fasciata	LC			
Perciformes	Leiognathidae	Eubleekeria splendens	LC			
Perciformes	Leiognathidae	Gazza minuta	LC			
Perciformes	Leiognathidae	Leiognathus equulus	LC			
Perciformes	Pomacentridae	Neopomacentrus aquadulcis	EN	B2ab(ii,iii)	Yes	
Perciformes	Pomacentridae	Neopomacentrus taeniurus	DD			
Perciformes	Ptereleotridae	Parioglossus formosus	LC			
Perciformes	Ptereleotridae	Parioglossus lineatus	DD			
Perciformes	Ptereleotridae	Parioglossus neocaledonicus	DD			New Caledonia
Perciformes	Ptereleotridae	Parioglossus palustris	LC			
Perciformes	Ptereleotridae	Parioglossus rainfordi	LC			
Perciformes	Ptereleotridae	Parioglossus raoi	LC			
Perciformes	Ptereleotridae	Parioglossus taeniatus	LC			
Perciformes	Ptereleotridae	Parioglossus triquetrus	DD			Fiji
Perciformes	Rhyacichthyidae	Protogobius attiti	EN	B2ab(i,ii,iii)		New Caledonia
Perciformes	Rhyacichthyidae	Rhyacichthys aspro	DD			
Perciformes	Rhyacichthyidae	Rhyacichthys guilberti	DD		Yes	
Perciformes	Siganidae	Siganus vermiculatus	LC			
Perciformes	Terapontidae	Mesopristes argenteus	LC			
Perciformes	Terapontidae	Mesopristes cancellatus	LC			
Perciformes	Toxotidae	Toxotes jaculatrix	LC			
Pleuronectiformes	Soleidae	Pardachirus poropterus	DD			
Scorpaeniformes	Tetrarogidae	Tetraroge niger	LC			
Syngnathiformes	Syngnathidae	Hippichthys spicifer	LC			
Syngnathiformes	Syngnathidae	Microphis leiaspis	LC			
Syngnathiformes	Syngnathidae	Microphis spinachioides	DD			Papua New Guinea

*Wide-ranging species submitted to the Red List by IUCN's Freshwater or Marine team in 2012