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#### Annotated checklist of the CITES-listed corals of Fiji with reference to Vanuatu, Tonga, Samoa and American Samoa

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### **Table of Contents**

1.	Exe	cutive summary	1
2.	Intr	oduction	2
	2.1	Coral distribution in the Pacific	2
3.	Har	d coral species records from Fiji	4
	3.1	Taxonomic Reliability	5
	3.2	Species occurrence in Fiji	5
	3.3	Species abundance	5
	3.4	Export quotas	6
4.	Spe	cies from the Central Southwest Pacific	41
5.		vention on International Trade In Endangered Species of wild fauna an TES)	d flora
5. 6.	(CI	<b>3</b>	d flora 63
	(CI	ΓES)	d flora 63 64
	(CI) The	TES) dynamics of hard coral abundance	d flora 63 64 64
	(CI) The 6.1	<b>TES</b> ) <b>dynamics of hard coral abundance</b> Utilisation of hard corals as a fishery resource	d flora 63 64 64
	(CI) The 6.1 6.2 6.3	TES) dynamics of hard coral abundance Utilisation of hard corals as a fishery resource Resource survey summary	<b>d flora</b> 63 64 65 67
6.	(CI The 6.1 6.2 6.3 Con	<b>TES</b> )	d flora 63 64 65 67 72

# 1. Executive summary

The harvest of coastal resources for the aquarium trade provides important economic opportunities for Pacific Island countries. Of particular relevance is the trade in hard corals, for which exports are controlled under the Convention of International Trade in Endangered Species (CITES).

The European Union is a major consumer and importer of these taxa from the Indo-Pacific region. This report was initiated by the UK CITES Scientific Authority to facilitate an improved understanding of the distribution of CITES-listed coral taxa in some Pacific islands. It provides information on the distribution of hard coral species of the orders of Scleractinia, Stolonifera, Milleporina, and Coenothecalia for Fiji and neighbouring islands in the central southwest Pacific, including Vanuatu, Samoa, American Samoa and Tonga.

Data was summarised from information drawn from a wide reference set including publications, reports, coral export records, as well as museum voucher specimens and unregistered specimens collected during expeditions. Records of occurrence of CITES controlled hard corals were compared to listings within the UNEP-WCMC species database which is used by many CITES Authorities as a reference guide to confirm species occurrence.

The number of species records varied geographically for Fiji and neighbouring islands. Occurrence was highest in Fiji; 354 species (comprising 342 Scleractinian species within 72 genera and 12 non-Scleractinian species within 5 genera). Known diversity in Vanuatu, directly west of Fiji was also high, with a total of 279 species recorded. The numbers of species listed as occurring in Tonga, Samoa and American Samoa which are situated east of Fiji were 189, 149 and 218 respectively. Fiji, followed by Vanuatu, has the largest reef area of the islands considered. Reef size in the other islands is significantly lower than Fiji and Vanuatu. Species diversity appears to be correlated with reef size and to related oceanic biodiversity gradients. It must however, be recognised that survey effort has not been consistent across all islands considered in this checklist.

Relative abundance data are presented for one coral collection site in Fiji, the most prolific exporter of CITES listed hard corals in the Pacific Island group. Coral abundance data are presented for American Samoa. Of the 354 recorded species within Fiji, 242 species in 34 genera are allowed to be exported under Fiji's voluntary export quota system, which includes eleven non-Scleractinian corals in four genera. Fiji's coral export quotas for each category (at genus and species levels) are listed.

## 2. Introduction

The aquarium trade represents an important utilization of the natural coral reef resources of Pacific island countries. Complementing subsistence and artisanal resource utilization, aquarium products provide economic opportunities to improve the lives of coastal people and can provide long term incentives to conserve reef ecosystems, which are typically very high in biodiversity, (Wabnitz *et al.* 2003). To achieve these goals, good management and best practice within the marine ornamental industry is essential. An important component of sustainable management of exploited species is the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Fiji, Samoa and Vanuatu have acceded to the Convention, but Tonga currently has not done so. Fiji is the most prolific exporter of hard corals and live rock<sup>1</sup> within the Pacific Island region (Green and Shirley 1999).

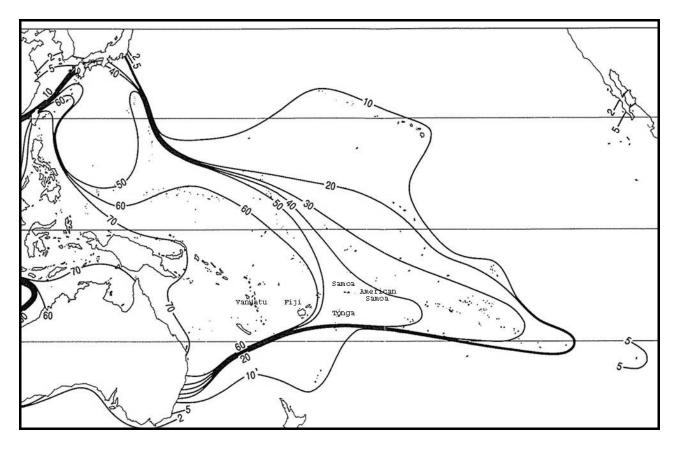
All hard coral taxa are listed on CITES Appendix II, and the Management Authority (MA) of an exporting Party is required to issue an export permit. Exports are permitted only if the specimens were legally acquired and the Scientific Authority (SA) has advised the MA that the export will not be detrimental to the survival of the species concerned. Permits must include details of the relevant species or genera, country of origin, source (e.g. wild), and quantity. Each exporting Party must compile annual trade statistics for all species listed on the Appendices and submit them to the CITES Secretariat. Non-Parties to the Convention must designate both a Management and Scientific body capable of fulfilling the relative functions of the MA and SA if they are to be able to trade with Parties.

Following the publication of coral species distribution based on a predictive model (Veron 2000), problems have arisen with regard to geographic origin of coral species within trade, for example whether a species genuinely occurs in an exporting country or not. The objective of this report is to provide information on the occurrence, status and distribution of hard coral species of the orders of Scleractinia, Stolonifera, Milleporina, and Coenothecalia for Fiji and the central southwest Pacific, including Vanuatu, Samoa, American Samoa and Tonga. The sources include museum specimens and published accounts (e.g. from expeditions, baseline survey, monitoring and rapid assessment). Some observations on species abundance and conservation status are presented for species occurring in Fiji.

### 2.1 Coral distribution in the Pacific

Fijian coral reefs are located in the central southwest Pacific. They are part of the Indo-west Pacific faunal province and are peripheral to the area of highest global coral biodiversity, which includes Indonesia, the Philippines, Papua New Guinea and the Solomon Islands (Veron and Turak, 2006). Diversity declines at the generic and species level in an easterly trend with distance from this centre (Stehli and Wells 1971; Veron 1993, 2000), Figure 1. This has been clarified at the species level by Wallace and Pandolfi (1991) and Wallace (1997, 1999).

<sup>&</sup>lt;sup>1</sup> Live rock is defined in CITES Conference Resolution 11.10 as '*pieces of coral rock to which are attached live specimens of invertebrate species and coralline algae not included in the CITES Appendices and which are transported moist but not in water...'.* Live rock is typically collected from the surface of coral reefs, usually at low tides. It is used within home aquaria to provide a substrate to which live corals can be attached and to improve water quality.



**Figure 1.** Decline in number of genera from west to east across the South Pacific (adapted from Veron 1993).

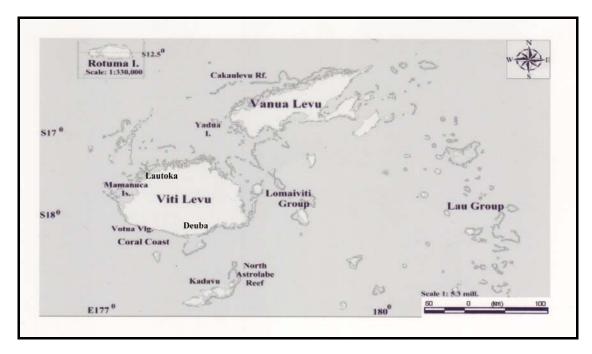
Fenner (2006) noted that "most coral species occurring in Fiji are widely distributed within the Indo-Pacific". Based on the maps of species distribution in Veron (2000), it was noted that 59% of the coral species had ranges that extended both east and west from Fiji, but 41% had ranges that only extended west from Fiji. A clear asymmetry in the ranges of coral species found in Fiji was apparent; for many species range extended to the west but not to the east. A biodiversity gradient in coral communities is evident with distance from the Indo-Pacific hotspot, with high diversity in the west fading out to low diversity in the east. Fiji is at the eastern end of range for many species.

## 3. Hard coral species records from Fiji

Table 1 represents the most up to date summary list of corals species recorded from Fiji. This list summarizes information drawn from publications, reports and coral export records (Lovell 2002a; Obura and Mangubhai 2003; Lovell 2005; Fenner 2006; Bonito (in prep), Fiji Fisheries records (unpublished); Veron 1993; 2000; Wallace 1999) and museum voucher specimens from the University of the South Pacific marine collection and the Museum of Tropical Queensland (Wallace 1999; Pichon 1980; Lovell 2005), with additions from the Smithsonian National Museum of Natural History (NMNH). Unregistered specimens comprise identified material from the Cakaulevu/North Vanua Levu expedition (Jenkins *et al.* 2004), which will be incorporated into the collections of the University of the South Pacific. Zann and Boulton (1985) described the distribution of the blue coral, *Heliopora coerulea*, which is common in the isolated northern Fijian island of Rotuma (approx. 300nm north of the main island group) and which was recently found in the main archipelago.

The Fiji hard coral list (Table 1) also includes a compilation of data derived from species surveys from around Viti Levu and includes locations to the west and north of Vanua Levu (Figure 2). Information on the species expected to occur in Fiji as the result of a predictive model (Veron 2000) is presented for comparison. Important areas such as Rotuma (Gardiner 1898) and the extensive Lau Group (Ladd and Hoffmeister 1945; Phipps and Preobrazhensky 1977; Salvat *et al.* 1977) have received limited study with regard to species occurrence. Viti Levu is the centre of the aquarium trade collection where most of the surveys were undertaken, so Table 1 is considered to include all those species that could be potentially traded within the quota framework.

The presence of a voluntary export quota, submitted to the CITES Secretariat by an exporting Party, can be an important component of a non-detriment finding for both for the exporting country and for an importing Party (should one be required by their stricter measures). The presence or absence of export quotas at the genus or species level are indicated in Table 1. Where quotas are set at the genus level, the number of species included within the export quota is considered in section 6.



**Figure 2.** Map of the Fiji Islands (source: Institute of Applied Science, University of the South Pacific, Fiji).

## 3.1 Taxonomic Reliability

The taxonomic reliability of the list is deemed to be valid as it has been compiled by authors experienced in coral taxonomy and in compiling coral checklists. The taxonomy can be considered uniform and, for the most part, follows the taxonomy of Veron (2000). Wallace (1999) is followed for the genus *Acropora*.

There is no formal CITES standard nomenclature for corals, however CITES Authorities primarily refer to a species database compiled by the United Nations Environment Programme's World Conservation Monitoring Centre (UNEP-WCMC) to verify coral taxonomy and species occurrence within a country. This database principally follows the taxonomy of Cairns *et al.* (1999), which includes all azooxanthellate species and the order Stylasterina but also includes species listed by Veron (2000) not included in Cairns *et al.* (1999). Table 1 records species recognised by the UNEP-WCMC species database<sup>2</sup> as occurring within Fiji (as at September 2007 when the database was consulted). Where species within the checklist were not recognised by the UNEP-WCMC species database, this is noted.

The comprehensive nature of species records varies with regard to completeness but collectively the references consulted provide a good understanding of species occurrence within Fiji. Questionable identifications have been reviewed and rectified. Where there is uncertainty with voucher specimen identification, the species is noted as compared (cf.) to the species considered to be the closest match but which is not considered similar enough for confident identification. The entries have been included for completeness but are not included in the total tally of species recorded as occurring in Fiji and the other islands.

The data in this paper represents a checklist of coral records within the central southwest Pacific, with an emphasis on Fiji. It is a collective summary of accounts of species presence. Generally, the number of records varies due to the amount of field effort. It is expected that more species will be added to this listing with increased effort, reference material and researchers dedicated to the study and taxonomy of corals.

## 3.2 Species occurrence in Fiji

The lack of comprehensive collections of hard coral specimens and taxonomic skill in identifying some genera have been limiting factors in compiling a full record of the species in Fiji and surrounding island countries. Fenner (2006), from rapid assessment in the Mamanuca Islands and Coral Coast, estimated species diversity to be potentially as high as 500 species; currently only 354 species are recorded.

## 3.3 Species abundance

Species abundance was calculated from data compiled from survey work conducted during the development and monitoring of Fiji's Aquarium Fishery Management Plan (Lovell 2002b, 2003a).

Transect information was derived through survey of the 'Walt Smith International' (WSI) and 'Aquarium Fish, Fiji' (AFF) collecting areas to determine the percentage cover of

<sup>&</sup>lt;sup>2</sup> <u>http://sea.unep-wcmc.org/eu/Taxonomy/index.cfm</u>

*Acropora* species and non-*Acropora* species, as well as other substrate using 20m point intercept transects. In the same areas, CITES species subject to collection were tallied from 20m x 2.5m belt transect data.

### 3.4 Export quotas

Species subject to Fiji's 2007/2008 export quotas are listed in section 6.3. Exports quotas are provided voluntarily by the Parties and published on the CITES website. Quotas for coral species refer to the number of wild individuals (live or dead) intended to be exported in one calendar year.

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<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins et al. 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2)</sup> .	Additional Comments
Class ANTHOZOA Subclass ZOOANTHERIA Order SCLERACTINIA													
Family ASTROCOENIIDAE													
Stylocoeniella armata (Ehrenberg, 1834)			X				153; 357	Х	Х				
Stylocoeniella guentheri (Bassett-Smith, 1890)					Х	Х	4074	Х	Х				
Madracis kirbyi Veron & Pichon, 1976							4234	Х	Х				
Family POCILLOPORIDAE													
<i>Pocillopora capitata</i> Verrill, 1864	Х						UR	Х	Х			(G)	
Pocillopora damicornis (Linnaeus, 1758)	Х	Х	X	Х	Х		10; 64; 176; 177; 181; 289	Х	Х	Х		(G)	
Pocillopora elegans Dana, 1846									Х			(G)	
Pocillopora eydouxi Milne Edwards & Haime, 1860	Х	Х	Х	Х	Х		17; 107; 179; 417; 3994	Х	Х	Х		(G)	
Pocillopora ligulata Dana, 1846									Х			(G)	
Pocillopora meandrina (Dana, 1846)	Х	Х	X		Х			Х	Х			(G)	
Pocillopora verrucosa (Ellis & Solander, 1786)	Х	Х	X	Х	Х		1; 135; 290; 392; 404; 3995; 3996; 3997; 3998	Х	Х	Х		(G)	
Pocillopora woodjonesi (Vaughan, 1918)	X	Х						Х	X			(G)	

Table 1. Records from Fiji of CITES-listed hard corals (Orders Scleractinia; Stolonifera; Milleporina; Coenothecalia).

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Seriatopora aculeata Quelch, 1886				Х	Х			Х					
Seriatopora caliendrum Ehrenberg, 1834	Х		cf.X	Х	X		UR	Х	Х				
Seriatopora hystrix Dana, 1846			X	Х	X		11; 12; 180; 229; 305; 3999; 4000; 4001	Х	Х	Х	Х	(S)	
Seriatopora stellata Quelch, 1886									Х	Х			
Stylophora pistillata (Esper, 1797)	Х	Х	Х	Х	X		5; 99; 4; 66; 399; 4002; 4003; 4004; UR	Х	Х	Х		(G)	
Stylophora subseriata (Ehrenberg, 1834)				Х	Х			Х	Х			(G)	
Family ACROPORIDAE													Wallace (1999) recognises two sub-genera of <i>Acropora</i> ; the nominate (A) and <i>Isopora</i> (I)
Acropora abrolhosensis Veron,1985				Х	Х			Х	Х			(G)	
Acropora (A.) abrotanoides (Lamarck, 1816)	Х	Х		Х	Х		3912	Х	Х			(G)	
Acropora (A.) aculeus (Dana, 1846)	X	Х		Х	Х	Х	3974; G40945	Х	Х	Х	Х	(G)	
<i>Acropora (A.) acuminata</i> (Verrill, 1864)						Х	G 34751	Х	Х	Х		(G)	
Acropora (A.) anthocercis (Brook, 1893)	Х							Х				(G)	
Acropora (A.) aspera (Dana, 1846)	X			Х	Х		55; 4152; 3981	Х	Х	Х	Х	(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	A dditional Comments
Acropora (A.) austera (Dana, 1846)	Х	Х		Х	Х	Х	G48556-7; UR	X	Х	Х		(G)	
Acropora (A.) azurea Veron & Wallace, 1984						Х		X				(G)	WCMC analling
Acropora (A.) bruggemanni (Brook, 1893)									Х			(G)	WCMC spelling A. brueggemanni
Acropora (A.) carduus (Dana, 1846)	Х	Х		Х	Х		cf. 4050; 4051; 4053	X	Х	Х	Х	(G)	
Acropora (A.) caroliniana (Nemenzo, 1976)		Х		Х	Х	Х	UR	X				(G)	
Acropora (A.) cerealis (Dana, 1846)	Х	Х		Х	Х		4147	X		Х		(G)	
Acropora(A.) chesterfieldensis Veron & Wallace, 1984				Х	Х			X	Х			(G)	
Acropora (A.) clathrata (Brook, 1891)	Х		Х	Х	Х	Х	3961	X				(G)	
Acropora (A) cophodactyla (Brook, 1842)				Х	X	Х		X				(G)	
Acropora (A) copiosa Nemenzo, 1967									Х			(G)	
Acropora (A.) cytherea (Dana, 1846)	Х	Х		Х	Х	Х	4565; G40927	X	Х	Х		(G)	
Acropora (A) dendrum (Bassett-Smith, 1890).									Х			(G)	
Acropora (A.) digitifera (Dana, 1846)		Х	X			Х	3976; G34740	X		Х		(G)	
Acropora (A.) divaricata (Dana, 1846)	Х	Х		Х	X	Х	3991;4146; 4566; G40942; G41122	X	X	Х	Х	(G)	
Acropora donei Veron & Wallace, 1984				Х	X	Х		X	Х			(G)	

Taxonomy (Veron 1993, 2000; Wallace 1999)         Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Acropora (A.) echinata (Dana, 1846)	Х	Х		Х	Х	Х	57; 231	Х	Х	Х	Х	(G)	
Acropora (A.) elseyi (Brook, 1892)							385; 4558; G33314; G34812-3; G41115	Х	Х	Х		(G)	
Acropora (A.) exquisita Nemenzo, 1971					Х	Х		Х	Х			(G)	
Acropora (A.) florida (Dana, 1846)	X	Х		Х	Х	Х	50; 4140; 4141; 4142; 4176; G34753; G34810-1	X	X	Х	Х	(G)	
Acropora (A.) gemmifera (Brook, 1892)		Х		Х	Х	Х	4553; 4554; 4555; 4576; G40933; G40936; G40946	Х	X	Х		(G)	
Acropora (A.) glauca (Brook, 1893)							G41121	Х		Х		(G)	
Acropora (A.) globiceps (Dana, 1846)		Х				Х		Х	X			(G)	
Acropora (A.) grandis (Brook, 1892)	X	Х		X			4559; G40923	X	X	Х		(G)	
<i>Acropora (A.) granulosa</i> (Milne Edwards & Haime, 1860)	Х				Х	Х	4552	Х	Х	Х		(G)	
Acropora (A.) horrida (Dana, 1846)							4133	Х	Х	Х	Х	(G)	
Acropora (A.) humilis (Dana, 1846)	Х	Х		Х	Х	Х	15; 52; 243; 4404; G34741; G34743; G34770; G34809	Х	Х	Х	Х	(G)	
Acropora (A.) hyacinthus (Dana, 1846)	Х	Х	Х	Х	X	Х	291; 298; 3954; 3955; 3956; 3957; 3968; 4056; 4239	X		Х	Х	(G)	
Acropora (A.) inermis (Brook, 1891)									Х			(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Acropora (A.) insignis Nemenzo, 1967					Х			Х	Х			(G)	
Acropora (A.) intermedia (Dana, 1846) also known as junior synonym Acropora nobilis (Dana, 1846)	X	Х	X	Х			cf. 157; 350; 3926; 3931; 4173; 4177; 4178;	Х	Х			(G)	
Acropora (A.) kirsteyi Veron & Wallace, 1984									Х			(G)	WCMC does not recognise Acropora kirsteyi
Acropora (A.) latistella (Brook, 1892)	X			Х	Х	Х	G35599	Х	Х	Х		(G)	
Acropora (A.) lokani Wallace, 1994					Х			Х				(G)	
Acropora (A.) longicyathus (Milne Edwards & Haime, 1860)	X	Х		Х	Х	Х	G34739	Х	Х	Х		(G)	
Acropora (A.) loripes (Brook, 1892)	X	Х			Х		4137	Х	Х			(G)	
Acropora (A.) lovelli Veron & Wallace, 1984					Х			Х	Х			(G)	
Acropora (A.) lutkeni Crossland, 1952					Х		4567; 4569; G40934; G40943	Х	Х	Х		(G)	
Acropora (A.) microclados (Ehrenberg, 1834)	X	Х				Х		Х		Х		(G)	
Acropora (A.) microphthalma (Verrill, 1869)	X	Х		Х	Х		4571; G33315; G40932; G41117	Х	Х	Х		(G)	
Acropora (A.) millepora (Ehrenberg, 1834)	X			Х	Х	Х	3977; 4577; 59; 4136; G11033-43	Х	X	Х		(G)	
Acropora (A.) monticulosa (Bruggemanni, 1879)		Х		Х	Х	Х		Х	X	Х		(G)	
Acropora (A.) multiacuta Nemenzo, 1967						Х		Х				(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Acropora (A.) muricata (Linneaus, 1758) also known as junior synonym Acropora (A.) formosa (Dana, 1846)		Х		Х	x	Х	56; 3928; 3936; 3975; 4159; 4179; 4180; 4556; 4560; 4561; G33311-3; G34805; G34814; G40928; G40930; G40938; G41116	Х	х		х	(G)	WCMC does not recognise <i>A. muricata.</i>
Acropora (A.) nana (Studer, 1878)		Х		Х	Х	Х	4574	Х	Х	Х	Х	(G)	
Acropora (A.) nasuta (Dana, 1846)	Х	Х		Х	Х		3979; 4575; 2; G33295; G33298; G33300	Х		Х		(G)	
Acropora (A.) palmerae Wells, 1954						Х		Х	Х			(G)	
<i>Acropora (A.) paniculata</i> Verrill, 1902	Х		Х	Х	Х	Х		Х	Х	Х		(G)	
Acropora (A.) parilis (Quelch, 1886)									Х			(G)	
Acropora (A.) pectinatus Veron, 2002					Х			Х				(G)	WCMC does not recognise A. <i>pectinatus</i>
<i>Acropora (A.) plana</i> Nemenzo, 1967					Х			Х				(G)	
Acropora (A.) polystoma (Brook, 1891)					X			Х	Х			(G)	
Acropora (A.) prostrata (Dana, 1846)	Х					Х		Х	Х	Х		(G)	
Acropora (A.) pulchra (Brook, 1891)					Х		61; 4151; 4548; G40935	Х	Х	Х		(G)	
Acropora (A.) rambleri (Bassett-Smith, 1890)	Х						4572; UR	Х	X			(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Acropora (A.) retusa (Dana, 1946)					Х	Х		Х	Х	Х	Х	(G)	
Acropora (A.) robusta (Dana, 1846)	X	Х	Х	Х	Х	Х	cf. 3919; 3917; 3918; 4165; G34738; G34744; G34816	Х	Х	Х	Х	(G)	
Acropora (A.) rosaria (Dana, 1846)									Х	Х		(G)	
Acropora (A.) samoensis (Brook, 1891)	Х	Х		Х	Х	Х	G34742; G34768; G34815	Х	Х	Х		(G)	
Acropora (A.) sarmentosa (Brook, 1892)	X	Х	Х		X			Х	Х	Х		(G)	
Acropora (A.) schmitti Wells, 1950									Х			(G)	
Acropora (A.) secale (Studer, 1878)	Х	Х		Х		Х	3983; 3990; 4573; G40939	Х	Х	Х		(G)	
Acropora (A.) selago (Studer, 1878)	Х	Х		Х	Х	Х	3973	Х				(G)	
Acropora (A.) solitaryensis Veron & Wallace, 1984									Х			(G)	
Acropora (A.) spathulata (Brook, 1891)	X							Х				(G)	WCMC does not recognise A. spathulata
Acropora (A.) speciosa (Quelch, 1886)	X	Х			X	Х	G40929	Х	Х	Х		(G)	
Acropora (A.) spicifera (Dana, 1846)	X	Х					4564; G40926	Х	X	Х		(G)	
Acropora (A.) subglabra (Brook, 1891)	X			Х	X		252; 4359; 4049; 4557; 4578; G40924; G40940; G41119	Х	X	Х		(G)	
Acropora (A.) subulata (Brook, 1893)		Х		Х		Х	4563; G40925; G40947; UR	Х	Х	Х	Х	(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2)</sup> .	Additional Comments
Acropora (A.) tenella (Brook, 1892)									Х			(G)	
Acropora (A.) tenuis (Dana, 1846)		Х		Х	Х	Х	4040; 4041; 4549; G40941; UR	Х	Х	Х	Х	(G)	
Acropora (A.) teres (Verrill, 1866)									Х			(G)	
Acropora (A.) tortuosa (Dana, 1846)	Х							Х	Х	Х	Х	(G)	
Acropora (A.) tutuilensis Hoffmeister, 1925									Х			(G)	
Acropora (A.) valenciennesi (Milne Edwards & Haime, 1860)	X	Х	Х	Х	X	Х	3916	Х	Х	Х		(G)	
Acropora (A.) valida (Dana, 1846)	X	Х		Х	X	X	cf. 3982; 4551; G40931	Х	Х	Х	Х	(G)	
Acropora (A.) vaughani Wells, 1954	Х				X		cf. 3925; cf. 4172; 4175; 4177; 4562; G40937	X	Х	Х		(G)	
<i>Acropora (A.) verweyi</i> Veron & Wallace, 1984		Х		Х	X			Х	X			(G)	
Acropora (A) walindi Wallace, 1999									Х			(G)	
Acropora (A) willisae Veron & Wallace, 1984				Х				Х	Х			(G)	
Acropora (A.) yongei Veron & Wallace, 1984					X			Х	Х	Х		(G)	
Acropora (I.) crateriformis (Gardiner, 1898)	Х				Х	Х		Х				(G)	
Acropora (I.) cuneata (Dana, 1846)	X		X		x	X	13; 78; 99; 133; 161; 338; 3906; 3907; 3908; 4570; 3965; G40944; UR	Х	х	Х	Х	(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Acropora (I.) palifera (Lamarck, 1816)	Х	Х	Х			Х	54; 160; 3909;	Х	Х	Х		(G)	
Anacropora forbesi Ridley, 1884	X	Х				Х	UR	Х					
Anacropora puertogalerae Nemenzo, 1964	Х						UR	X					
Astreopora cucullata Lamberts, 1980			cf. X			Х		Х	Х				
<i>Astreopora elliptica</i> Yabe & Sugiyama, 1941					Х	Х		Х					WCMC treats this taxon as a synonym of <i>Astreopora</i> <i>myriophthalma</i>
Astreopora gracilis Bernard, 1896	Х		X			Х	UR	Х	X				
Astreopora listeri Bernard, 1896	Х			Х	Х	Х	UR	Х	Х	Х			
Astreopora macrostoma Veron & Wallace, 1984									Х				
Astreopora myriophthalma (Lamarck, 1816)		Х	X	Х	Х	Х	cf. 4362; 18; 79; 105; 106; 147; 165; 166; 4363	Х	X	Х			See A. elliptica
Astreopora ocellata Bernard, 1896									Х				
Astreopora randalli Lamberts, 1980	Х				Х		UR	Х	X				
Astreopora scabra Lamberts, 1982									X				
Astreopora suggesta Wells, 1954	X				X	X		X	X				

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
<i>Montipora aequituberculata</i> Bernard, 1897	X		Х	Х		Х		Х	Х			(G)	
Montipora altasepta Nemenzo, 1967					Х			Х	Х			(G)	
Montipora angulata (Lamarck, 1816)									Х			(G)	
<i>Montipora australiensis</i> Bernard, 1897									Х			(G)	
<i>Montipora calcarea</i> Bernard, 1897									Х			(G)	
<i>Montipora caliculata</i> (Dana, 1846)	X				Х	Х	UR	Х	Х	Х	Х	(G)	
<i>Montipora capitata</i> Dana, 1846					Х			Х	Х			(G)	
<i>Montipora capricornis</i> Veron, 1985									Х			(G)	
<i>Montipora cebuensis</i> Nemenzo, 1976									Х			(G)	
<i>Montipora corbettensis</i> Veron & Wallace, 1984									Х			(G)	
<i>Montipora crassituberculata</i> Bernard, 1897			Х					Х	Х			(G)	
<i>Montipora danae</i> Milne Edwards & Haime, 1851	Х		Х	Х	X	Х	UR	Х	Х	Х		(G)	
Montipora digitata (Dana, 1846)	Х				Х	Х	UR	Х	Х	Х	Х	(G)	
Montipora efflorescens Bernard, 1897						Х		Х	Х			(G)	
<i>Montipora effusa</i> Dana, 1846									Х			(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2)</sup> .	Additional Comments
Montipora floweri Wells, 1954						Х		Х	Х			(G)	
Montipora foliosa (Pallas, 1766)						Х	4182; 4186; 4191; 4195; 4199; 4209; 4210; 4213	Х	Х	Х		(G)	
Montipora foveolata (Dana, 1846)	X		cf. X		X	Х	77; 108; 125; 131; 144; 146; 162; 256; 4187; 4197; 4200; 4210; 4238; UR	Х	Х	Х	Х	(G)	
Montipora grisea (Bernard, 1897)	X		X			Х		Х	Х			(G)	
Montipora hispida Dana, 1846					X	Х	20; 21; 63; 224; 241; 267; 284; 285; 333; 413; 416; 4193; 4198	Х	Х			(G)	
<i>Montipora hoffmeisteri</i> Wells, 1954			cf. X			Х		Х	Х			(G)	
Montipora incrassata (Dana, 1846)	Х							Х	Х	Х	Х	(G)	
<i>Montipora informis</i> Bernard, 1897			cf. X		Х	Х		Х	Х			(G)	
<i>Montipora lobulata</i> Bernard, 1897									Х			(G)	
Montipora millepora Crossland, 1952			cf. X						Х			(G)	
Montipora mollis Bernard, 1897									Х			(G)	
Montipora monasteriata (Forskal, 1775)	Х						UR	Х	Х	Х		(G)	
Montipora nodosa (Dana, 1846)	Х				Х	Х	UR	Х	Х	Х		(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2)</sup> .	Additional Comments
<i>Montipora peltiformis</i> (Bernard, 1897)	Х					Х	UR	Х	Х			(G)	
Montipora samarensis Nemenzo, 1967									Х			(G)	
<i>Montipora spongodes</i> Bernard, 1897			cf. X						Х			(G)	
Montipora spumosa (Lamarck, 1816)									Х	Х		(G)	
<i>Montipora stellata</i> Bernard, 1897					Х			Х				(G)	
Montipora tuberculosa (Lamarck, 1816)	X				X	Х	163; 306; 331; 361; 400; 4204; 4207; 4242; UR	Х	Х			(G)	
<i>Montipora turgescens</i> Bernard, 1897						Х		Х	Х			(G)	
<i>Montipora undata</i> Bernard, 1897					Х	Х		Х	Х			(G)	
Montipora venosa (Ehrenberg, 1834)	Х					Х		Х	Х	Х		(G)	
Montipora verrucosa (Lamarck, 1816)	X	Х	X	X	X	Х	4188; 4190; 4196; 4201; 4202; 4206; UR	Х	X	Х		(G)	WCMC treats this taxon as a synonym of <i>M. foveolata</i>
Family AGARICIIDAE Coeloseris mayeri							N67662; N67661;						
Vaughan, 1918			<u> </u>				N68238; N68248	Х					
Gardineroseris planulata (Dana, 1846)	Х	Х	Х	Х	Х	Х	112; 242; 387; 3966; 4065; 4075; 4079; 4091; UR	Х	Х	Х			
<i>Leptoseris explanata</i> Yabe & Sugiyama, 1941	Х		X		Х	Х	4018; 4028; UR	Х	Х				

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2)</sup> .	Additional Comments
<i>Leptoseris gardineri</i> Van der Horst, 1921	X						4071; UR	Х	Х	Х			
<i>Leptoseris hawaiiensis</i> Vaughan, 1907	X					Х	4021; 4023; 4024; 4030; UR	Х	Х				
<i>Leptoseris incrustans</i> (Quelch, 1886)			X			Х		Х	Х				
Leptoseris mycetoseroides Wells, 1954	X		X	Х	Х	Х	4023; 4032; UR	Х	Х				
<i>Leptoseris papyracea</i> (Dana, 1846)									Х				
Leptoseris scabra Vaughan, 1907	X	Х	Х	Х	Х	Х	4020; 4022; 4026; 4027; 4035; UR	Х	Х				
Leptoseris solida Quelch, 1886	X						UR	Х					
Leptoseris yabei (Pillai and Scheer, 1976)	X		Х		Х	Х		Х	Х				
Pachyseris gemmae Nemenzo, 1955					Х			Х					
Pachyseris rugosa (Lamarck, 1801)	X	Х	X	Х	Х			Х	Х	Х		(S)	
Pachyseris speciosa (Dana, 1846)	Х	Х	X	Х			172; 4008; 4009; 4010; 4011; 4012; 4014; 4015; 4016	Х	Х	Х		(S)	
Pavona bipartita Nemenzo, 1980									X			(G)	
Pavona cactus (Forskal, 1775)		Х			Х		170; 4063; 4080; 4087	Х	X	Х		(G)	
Pavona clavus (Dana, 1846)	X		X	Х	Х		407; 4059; 4071; 4072; 4078; 4088; 4089; UR	Х	Х	Х	Х	(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Pavona decussata (Dana, 1846)			Х		Х		27; 235; 308; 428; 4061; 4062; 4068; 4070; 4081	Х	Х	Х	Х	(G)	
Pavona divaricata (Lamarck, 1816)							23; 329; 22; 310; 381	Х		Х		(G)	
Pavona duerdeni (Vaughan, 1907)	Х				Х		UR	Х	Х			(G)	
Pavona explanulata (Lamarck, 1816)	X		Х		Х		118; 130; 174; 4031; 4033; 4034; 4082; 4092; 4093; UR	Х	Х			(G)	
Pavona frondifera (Lamarck, 1816)					Х			Х		Х		(G)	
Pavona maldivensis (Gardiner, 1905)	Х		Х	Х	Х		117; 126; 4066; 4067; 4081; 4083	Х	Х			(G)	
Pavona minuta Wells, 1954	Х	Х		Х	Х		4064; 4088; 4090	Х	Х			(G)	
Pavona varians (Verrill, 1864)	X		Х	Х	Х		19; 116; 132; 143; 206; 250; 352; 429; 4076; 4077; UR	Х	Х	Х			
Pavona.venosa (Ehrenberg, 1834)	X		cf. X	Х			UR	Х	X	Х		(G)	
Family SIDERASTREIDAE Coscinaraea columna (Dana, 1846)		X	X	Х	X	X	171; 321; 331; 4009; 4076;4095; 4098; 4100	X	X	X	X		WCMC records genus as <i>Coscinastrea</i>
Coscinaraea exesa (Dana, 1846)	X		Х		X			Х	Х	Х	Х		
Coscinaraea wellsi Veron & Pichon, 1980			X					Х	X				

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	A dditional Comments
Psammocora contigua (Esper, 1797)	X	Х		Х	X		8; 9; 164; 328; 395; 414; 422; 921; 3964; 4006	X	Х	Х			
<i>Psammocora digitata</i> Milne Edwards & Haime, 1851	X	Х	Х		X		UR	Х	Х	Х			
<i>Psammocora explanulata</i> Horst, 1922									Х				
<i>Psammocora haimeana</i> Milne-Edwards & Haime, 1851	X				X			X	Х				
Psammocora nierstraszi van der Horst, 1921					X		UR	X	Х				
Psammocora obtusangula (Lamarck, 1816)						Х		X		Х			
<i>Psammocora profundacella</i> Gardiner, 1898	X		Х		X		UR	X	Х				
<i>Psammocora superficialis</i> Gardiner, 1898	X		Х	Х			236; 240; 254; 259; 408; 4007; 4075	X	Х				
Psammocora vaughani Yabe & Sugiyama, 1936	X							X	X				
Psuedosiderastrea tayamai Yabe & Sugiyama, 1935									Х				
<i>Siderastrea savignyana</i> Milne Edwards & Haime, 1850									Х				
Family FUNGIIDAE													
<i>Cantharellus jebbi</i> Hoeksema, 1993	X				Х		UR	X					
Ctenactis albitentaculata Hoeksema, 1989			Х		X			X	Х	Х			
Ctenactis crassa (Dana, 1846)			X		Х		354; 3526	Х	Х	Х			

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is, (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	A dditional Comments
Ctenactis echinata (Pallas, 1766)	Х		Х	Х	Х	Х	182; 280; 3229; 3513; 3531; 3532; 3547; UR	Х	Х	Х			
Cycloseris costulata (Ortmann, 1889)	X		х		Х	Х	426; UR	Х		Х			WCMC treats <i>Cycloseris</i> as a synonym of <i>Fungia</i>
Cycloseris cyclolites (Lamarck, 1801)			X				3505	Х		Х			
<i>Cycloseris hexagonalis</i> Milne Edwards & Haime, 1848					Х			Х					
<i>Cycloseris patelliformis</i> Boschma, 1923	Х						3511; 3515; UR	Х	Х				
<i>Cycloseris sinensis</i> Milne Edwards & Haime, 1851									Х	Х			
Cycloseris somervillei (Gardiner, 1909)									Х	Х			
Cycloseris tenuis (Dana, 1846)			X		Х			Х	Х				
Cycloseris vaughani (Boschma, 1923)	X				Х		cf. 3053; UR	Х	Х				
<i>Diaseris distorta</i> Michelin, 1842			X				3520; N1004; N100212	Х	Х	Х			WCMC treats Diaseris as a synonym of Fungia
<i>Diaseris fragilis</i> Alcock, 1893									Х				
Fungia (D.) corona Doederlein, 1901					Х			Х				(G)	
<i>Fungia (D.) danai</i> Milne Edwards & Haime, 1851	Х			Х	Х		3540; 3541; 3528; 3535	Х	Х	Х		(G)	
Fungia (D.) horrida Dana, 1846			X		Х		274; 3517; 3524; UR	Х	Х	Х	Х	(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is, (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Fungia (D.) klunzingeri Döderlein, 1901					Х			Х				(G)	
Fungia (D.) scruposa Kluzinger, 1879		Х	Х		Х		3544	Х	Х	Х		(G)	
Fungia (F.) fungites (Linnaeus, 1758)			х		X	Х	25; 26; 95; 137; 138; 183; 275; 276; 278; 294; 318; 368; 3509; 3525; 3534; 3537; 3538; 3539; 3548	Х	Х	Х		(G)	
<i>Fungia (P.) mollucensis</i> Van der Horst, 1919							3501; UR	Х	Х	Х		(G)	
<i>Fungia (P.) paumotensis</i> Stutchbury, 1833	Х		Х		Х	Х	277; 3533	Х	Х	Х		(G)	
Fungia (P.) scutaria Lamarck, 1801	Х		Х	Х	Х	Х	128; 187; 3506; 3510; 3516	Х	Х	Х		(G)	
<i>Fungia (V.) concinna</i> Verrill, 1864	X		Х	Х	Х		3546; 3542; 3543; UR	Х	Х	Х		(G)	
Fungia (V.) granulosa Klunzinger, 1879	Х		Х		Х		3550	Х	Х	Х		(G)	
Fungia (V.) repanda Dana, 1846			Х				184; 317; 3519; 3530; 3967	Х	Х	Х	Х	(G)	
Fungia (V.) scabra Doderlein, 1901	X						3504; 3521; 3523; UR	Х				(G)	
<i>Fungia (V.) spinifer</i> Claereboudt & Hoeksema 1987					Х			Х				(G)	
Halomitra pileus (Linnaeus, 1758)			Х	Х			4103; 4104	Х	Х	Х			
Heliofungia actiniformis (Quoy & Gaimard, 1833)									Х	Х			

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2)</sup> .	Additional Comments
Herpolitha limax (Houttuyn, 1772)	Х	Х	X	Х	Х		185; 186; 4110	Х	Х	Х			
Herpolitha weberi Horst, 1921					Х	Х		Х	Х				
<i>Lithophyllon undulatum</i> Rousseau, 1854	Х		Х			Х	cf. 3508	Х					
Lithophyllon mokai Hoeksema, 1989			X					Х	Х	Х			
<i>Podabacia crustacea</i> Milne Edwards & Haime, 1849			X	Х	X		4113; 4114	Х	Х	Х			
Podabacia motuporensis Veron, 1990	X				X			Х	Х				
<i>Polyphyllia novaehiberniae</i> (Lesson, 1831)					X			Х	Х	Х			
Polyphyllia talpina (Lamarck, 1801)	X		X	Х	Х		189; 286; 300; 322; 374; UR	Х	Х	Х		(S)	
Sandalolitha robusta (Quelch, 1886)	X		X	Х	X		3500	Х	X				
Sandalolitha dentata (Quelch, 1884)	Х		Х		Х		3500; 4112	Х	Х	Х			
Zoopilus echinatus Dana, 1846	Х		Х	Х	Х		3502; 4105	Х	Х	Х	Х		
Family RHIZANGIIDAE Rhizopsammia verrilli Van der Horst, 1922					X			X					
Family PORITIDAE Alveopora allingi Hoffmeister, 1925									X				
Alveopora catalai Wells, 1968									Х				

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Alveopora fenestrata (Lamarck, 1816)									Х				
Alveopora marionensis Veron & Pichon, 1982			X					Х	Х				
Alveopora ocellata Wells, 1954									Х				
Alveopora spongiosa Dana, 1846	Х		cf. X		Х	Х	UR	Х	Х	Х			
<i>Alveopora tizardi</i> Bassett-Smith, 1890									Х				
Goniopora columna Dana, 1846	Х			Х				Х	Х	Х		(G)	
Goniopora djiboutiensis Vaughan, 1907			X		Х	Х		Х	Х			(G)	
Goniopora fruticosa Saville-Kent, 1893					Х			Х				(G)	
<i>Goniopora lobata</i> (Milne Edwards & Haime, 1860)	Х		cf. X					Х	Х			(G)	
Goniopora minor Crossland, 1952	Х					Х		Х	X			(G)	
<i>Goniopora pandoraensis</i> Veron & Pichon, 1982									X			(G)	
Goniopora somaliensis Vaughan, 1907					Х	Х		Х	Х			(G)	
<i>Goniopora stokesi</i> Milne Edwards & Haime, 1851									Х			(G)	
Goniopora stutchburyi Wells, 1955	Х					Х	UR	Х	Х			(G)	
Goniopora tenuidens (Quelch, 1886)	Х							Х	X			(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Porites (P.) annae Crossland, 1952	Х				Х		4126; cf. 4237	Х	Х			(G)	
Porites(P.) arnaudi Reyes-Bonilla & Carricart-Ganivet, 2000									Х			(G)	
Porites (P.) attenuata Nemenzo, 1955						Х		Х	Х			(G)	
Porites (P.) australiensis Vaughan, 1918						Х	401	Х	Х	Х		(G)	
Porites (P.) cylindrica Dana, 1846	Х	Х	Х	Х	Х		UR	Х	Х	Х	Х	(G)	
Porites (P.) deformis Nemenzo, 1955									Х			(G)	
Porites(P.) horizontalata Hoffmeister, 1925					Х	Х		Х	Х			(G)	
Porites (P.) lichen Dana, 1846		Х					115; 127; 142; 258; 379; 402; 4125; 4127	Х	Х	Х	Х	(G)	
Porites (P.) lobata Dana, 1846	X	Х		Х	Х	Х	28; 209	Х	Х	Х	Х	(G)	
<i>Porites (P.) lutea</i> Milne Edwards & Haime, 1860	Х			Х	Х	Х	29; 109; 238; 397; 4210	Х	Х	Х	Х	(G)	
Porites (P.) monticulosa Dana, 1846					Х			Х				(G)	
Porites (P.) murrayensis Vaughan, 1918						Х	220; 257	Х	Х	Х		(G)	WCMC records occurrence for Fiji as questionable
Porites (P.) nigrescens Dana, 1848	X						4123	Х	Х			(G)	
Porites (S.) rus (Forskal, 1775)	Х	Х		Х	Х		4118; 4119; 4122	Х	Х	Х		(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2)</sup> .	Additional Comments
Porites (P.) solida (Forskal, 1775)	Х		Х			Х		Х	Х	Х		(G)	
Porites (P.) stephensoni Crossland, 1952									Х			(G)	
Porites(P.) vaughani Crossland, 1952			Х		Х			Х	Х			(G)	
Stylaraea punctata (Linneaus, 1758)						Х		X					
Family FAVIIDAE Barabattoia amicorum (Milne Edwards & Haime, 1850)			X			X	200; cf. 249	X	X				
Barabattoia laddi Wells, 1954									Х				
<i>Caulastrea curvata</i> Wijsman-Best, 1972	Х				Х		UR	Х	Х			(G)	
<i>Caulastrea echinulata</i> (Milne Edwards & Haime, 1849)					Х			Х				(G)	
<i>Caulastrea furcata</i> Dana, 1846	Х		Х	Х	Х	Х	4214	Х	Х	Х	Х	(G)	
<i>Caulastrea tumida</i> Matthai, 1928					Х			Х				(G)	
Cyphastrea agassizi (Vaughan, 1907)						Х		Х					
<i>Cyphastrea chalcidicum</i> (Forskal, 1775)	Х		cf. X			Х	4217; 4218; 4221	X	Х	Х			
Cyphastrea decadia Moll & Borel-Best, 1984	X			Х	Х	Х	4222; 4223; 4225	X	Х				
Cyphastrea microphthalma (Lamarck, 1816)	X					Х	4216; 4219; 4220; 4241; UR	X	Х	Х			
<i>Cyphastrea ocellina</i> (Dana, 1864)									Х				

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Cyphastrea serailia (Forskal, 1775)	X		Х			Х	101; 192; 196; 248; 271; 324; 348; 353; 432	Х	Х	Х			
Diploastrea heliopora (Lamarck, 1816)	X	Х	X	Х	Х	Х	334; 335; 377; 427; 4224	Х	X	Х			
<i>Echinopora gemmacea</i> Lamarck, 1816	Х	Х	Х		Х	Х	cf. 342	Х	Х			(G)	
<i>Echinopora hirsutissima</i> Milne Edwards & Haime, 1849					X	Х		Х	Х			(G)	
<i>Echinopora horrida</i> Dana, 1846	Х	Х		Х	Х	Х	122; 215; 410; 3501; UR	Х	Х	Х	Х	(G)	
Echinopora lamellosa (Esper, 1795)	X	Х	X	Х	X	Х	213; 214; 303; 319; 376; 380; 3602; 3603; 3605; 4244	X	X	Х		(G)	
<i>Echinopora mammiformis</i> (Nemenzo, 1959)			X					X	Х			(G)	
<i>Echinopora pacificus</i> Veron, 1990									Х			(G)	
<i>Favia danae</i> Verrill, 1872									Х			(G)	
<i>Favia favus</i> (Forskal, 1775)			cf. X				76; 123; 266; 4227	Х	Х	Х		(G)	
Favia helianthoides Wells, 1954									Х			(G)	
Favia laxa Klunzinger, 1879			cf. X					Х		Х		(G)	
Favia lizardensis Veron & Pichon, 1977									Х			(G)	
<i>Favia matthaii</i> Vaughan, 1918	X	Х	cf. X	Х	X	Х	139	Х	Х			(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is, (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2)</sup> .	Additional Comments
<i>Favia maxima</i> Veron, Pichon & Wijsman-Best, 1977			Х	Х	Х			Х				(G)	
<i>Favia pallida</i> (Dana, 1846)	Х		Х	Х	X	Х	69; 151; 203; 210; UR	Х	Х	Х	Х	(G)	
<i>Favia rotumana</i> (Gardiner, 1899)			Х				31; 82; 111	Х	Х	Х		(G)	
<i>Favia rotundata</i> (Veron, Pichon & Wijsman-Best, 1977)	Х		cf. X	Х	X	Х	205; 4226	Х	Х		Х	(G)	
Favia speciosa Dana, 1846	Х					Х		Х	Х	Х		(G)	
Favia stelligera (Dana, 1846)	X	Х	Х	Х	X	Х	103; 336; 378; UR	Х	Х	Х	Х	(G)	
<i>Favia veroni</i> Moll & Borel-Best, 1984									Х			(G)	
<i>Favites abdita</i> (Ellis & Solander, 1786)	X	Х	cf. X	Х	X	Х	33; 35; 87; 4251	Х	Х	Х		(G)	
Favites bestae Veron, 2000									Х			(G)	
<i>Favites chinensis</i> (Verrill, 1866)							124; 199; 372; 396	Х	Х			(G)	
<i>Favites complanata</i> (Ehrenberg, 1834)			Х					Х	Х	Х		(G)	
Favites flexuosa (Dana, 1846)			cf. X	Х		Х	34; 265; 370	Х	X	Х	X	(G)	
Favites halicora (Ehrenberg, 1834)	X	Х	Х	Х	X	Х		Х	X			(G)	
<i>Favites paraflexuosa</i> Veron, 2002					X			Х				(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2)</sup> .	Additional Comments
<i>Favites pentagona</i> (Esper, 1794)	Х				Х	Х		Х	Х			(G)	
Favites russelli (Wells, 1954)	Х		Х			Х		Х	Х			(G)	
<i>Goniastrea aspera</i> Verrill, 1905	Х	Х	cf. X	Х		Х		X	X	Х		(G)	
Goniastrea australensis (Milne Edwards & Haime, 1857)			Х				140	Х	Х			(G)	
Goniastrea edwardsi Chevalier, 1971	Х	Х	Х		Х	Х	246	Х	Х	Х		(G)	
<i>Goniastrea favulus</i> Dana, 1846			Х					X	X	Х	Х	(G)	
Goniastrea minuta Veron, 2000					Х			Х				(G)	
<i>Goniastrea palauensis</i> (Yabe & Sugiyama, 1936)									X			(G)	
<i>Goniastrea pectinata</i> (Ehrenberg, 1834)			cf. X		Х	Х	68	X	Х	Х		(G)	
Goniastrea retiformis (Lamarck, 1816)	Х	Х	cf. X	Х	Х	Х	36; 81; 83; 89; 202; UR	Х	Х	Х		(G)	
Leptastrea bewickensis (Veron, Pichon & Wijsman-Best, 1977)							4230	Х					
<i>Leptastrea bottae</i> (Milne Edwards & Haime, 1849)									Х				
Leptastrea inaequalis Klunzinger, 1879									X				
<i>Leptastrea pruinosa</i> Crossland, 1952					Х	Х		Х	X				
Leptastrea purpurea (Dana, 1846)	Х	Х	X	Х	Х	Х	UR	Х	X	Х	Х		

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	A dditional Comments
Leptastrea transversa (Klunzinger, 1979)			cf. X		Х	Х	247	Х	Х				
Leptoria phrygia (Ellis & Solander, 1786)			Х	Х	Х	Х	39; 40; 71; 73; 74; 314; 336; 364; 70	Х	Х	Х			
<i>Montastrea annuligera</i> (Milne Edwards & Haime, 1849)					Х			Х	Х	Х		(G)	
Montastrea curta (Dana, 1846)	Х		Х	Х	Х	Х	72; 97; 136; 145; 341; 908; 4252	Х	Х	Х	Х	(G)	
<i>Montastrea magnistellata</i> Chevalier, 1971	X		cf. X	Х	Х		255; 272; 4247	Х	Х			(G)	
<i>Montastrea multipunctata</i> Hodgson, 1985									Х			(G)	
Montastrea salebrosa (Nemenzo, 1959)	X						UR	Х				(G)	
<i>Montastrea valenciennesi</i> (Milne Edwards & Haime, 1848)									X			(G)	
<i>Oulophyllia bennettae</i> (Veron & Pichon, 1977)			Х					Х	Х				
<i>Oulophyllia crispa</i> (Lamarck, 1816)			X	X	Х		4253; 4853	Х	Х				
Platygyra acuta Veron, 2002					Х			Х				(G)	
Platygyra contorta (Veron, 1990)									X			(G)	
<i>Platygyra daedalea</i> (Ellis & Solander, 1786)	X	Х	cf. X	X	X		38; 204; 239; 409; 3561	Х	X	Х	X	(G)	
<i>Platygyra lamellina</i> (Ehrenberg, 1834)	X	Х	cf. X	Х	X		91	Х	X	Х		(G)	
<i>Platygyra pini</i> Chevalier, 1975	X	Х	X	Х			119; 353; 366	Х	X			(G)	

Taxonomy (Veron 1993, 2000; Wallace 1999)Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2)</sup> .	Additional Comments
Platygyra ryukyuensis Yabe & Sugiyama, 1936									Х			(G)	
Platygyra sinensis (Milne Edwards & Haime, 1849)				Х			37; 152; 211; 345; 394; 227; 4332; 4333; 4334; 4336; 4339	Х	Х			(G)	
Plesiastrea versipora (Lamarck, 1816)				Х	Х		208; 84; 212	Х	X	Х			
Family TRACHYPHYLLIIDAE Trachyphyllia geoffroyi (Audoin, 1826)					X		4255; 4256	X		Х		(S)	WCMC records occurrence for Fiji as questionable
Family OCULINIDAE Galaxea astreata (Lamarck, 1816)	X		X	X	X		44; 405; 4281; 4282; 4283	X	X	X		(S)	
<i>Galaxea fascicularis</i> (Linnaeus, 1767)	Х	Х	Х	Х	Х	Х	3; 167; 302; 398; 421	Х	Х	Х		(S)	
Galaxea horrescens (Dana, 1846)		Х	x		X	Х	168; 169; 320; 367;4278; 4280	х	х	Х		(S)	WCMC treats this taxon as a synonym of <i>Acrhelia</i> <i>horrescens.</i> Export quota is for <i>A.horrescens</i>
Family MERULINIDAE Paraclavarina triangularis Veron & Pichon, 1980							4274; 4257; 4258; 4259; 4261; 4262	X	Х				
Hydnophora exesa (Pallas, 1766)	X		X	Х	X	Х	75; 207; 4249	X	X			(S)	
Hydnophora grandis Gardiner, 1904					X	Х		Х	Х				

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2)</sup> .	Additional Comments
Hydnophora microconos (Lamarck, 1816)	X		X	Х	X	Х	150; 340; 4243; 41; 42	Х	X	Х			
Hydnophora pilosa Veron, 1985									X				
Hydnophora rigida (Dana, 1846)	Х	Х	X	Х	Х	Х	98; 159; 201; 232; 295; 371	Х	Х	Х		(S)	
Merulina ampliata (Ellis & Solander, 1786)	x	X	cf. X	X	x	Х	134; 197; 198; 245; 270; 281; 327; 358; 360; 4263; 4264; 4265; 4267; 4268; 4269; 4270; 4271; 4273; 4275; 4772; UR	Х	X	Х		(S)	
Merulina scabricula (Dana, 1846)	Х	Х	cf. X		X	Х		Х	Х	Х	Х	(S)	
Scapophyllia cylindrica (Milne Edwards & Haime, 1848)	X		X	Х	Х		4276; 4277	Х	Х	Х			
Family MUSSIDAE Acanthastrea bowerbanki (Milne Edwards & Haime, 1851)							cf. 93		X				
<i>Acanthastrea brevis</i> Milne Edwards & Haime, 1849					X	Х		Х					
Acanthastrea echinata (Dana, 1846)			X	Х	X	Х	343; 4226; 4250	Х	X	Х	Х		
Acanthastrea hemprichii (Ehrenberg, 1834)					Х			Х					
Acanthastrea hillae Wells, 1955			X					Х					
Acanthastrea ishigakiensis Veron, 1990					X	Х		Х	X				

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Acanthastrea subechinata Veron, 2002					Х			Х					
Blastomussa wellsi Wijsman-Best, 1973			X					Х	Х				
<i>Cynarina lacrymalis</i> Milne Edwards & Haime, 1848	X		X				4286; UR	Х	Х				
Lobophyllia corymbosa (Forskal, 1775)	X		X	Х	Х	Х	67; 80; 158; 190; 228; 346; 347; 4287; 4288	X	Х	Х		(G)	
Lobophyllia diminuta Veron, 1985									Х			(G)	
Lobophyllia hataii Yabe, Sugiyama & Eguchi, 1936			cf. X		Х	Х	4289	X	Х	Х		(G)	
Lobophyllia hemprichii (Ehrenberg, 1834)			X	Х	X	X	110; 225; 253; 4293; 4294; 4295; 4299; 4300; 4301; 4302; 4304; 4305; 4306	Х	Х	X		(G)	
<i>Lobophyllia pachysepta</i> Chevalier, 1975	X		X	Х				X	Х			(G)	
<i>Lobophyllia robusta</i> Yabe & Sugiyama, 1936					Х			Х				(G)	
Micromussa amakusensis (Veron, 1990)							UR	Х	Х				WCMC records as synonym of Acanthastrea amakusensis
Scolymia vitiensis Bruggemann, 1877	X	Х	Х	Х	Х		4293; 4290; 4292	Х	Х	Х	Х		
Symphyllia agaricia Milne Edwards & Haime, 1849	X	Х			X		188	X	Х				

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Symphyllia hassi Pillai & Scheer, 1976					х			Х					WCMC records occurrence for Fiji as questionable
<i>Symphyllia radians</i> (Milne Edwards & Haime, 1849)	Х	Х	Х	Х	Х			Х	Х	Х			
Symphyllia recta (Dana, 1846)	Х		Х	Х	X		92; 104; 191; 344;	Х	Х	Х			
Symphyllia valenciennesii Milne-Edwards & Haime, 1849 Family PECTINIDAE			X		X			Х	Х				
<i>Echinomorpha nishihirai</i> Veron, 1990	X				x	X	UR	X					WCMC lists as a synonym of Echinophyllia nishihirai
<i>Echinophyllia aspera</i> (Ellis & Solander, 1786)	X	Х	X	Х	X	X	141; 260; 325; 373; 3606; 4308; 4310; 4311; 4313; 4323; UR	X	Х				
<i>Echinophyllia echinata</i> (Saville-Kent, 1871)		Х	Х	Х	Х	Х	4307; 4321	Х	Х				
<i>Echinophyllia orpheensis</i> Veron & Pichon, 1980					X			Х					
<i>Echinophyllia patula</i> (Hodgson & Ross, 1982)					X			X					
Mycedium elephantotus (Pallas, 1766)	Х	Х	Х	Х	X	Х	326; 4315; 4316; 4319; 4320	Х	Х	Х		(S)	
Mycedium mancaoi Nemenzo, 1979						Х		Х	Х				
Mycedium robokaki Moll & Borel-Best, 1984					X			Х					
Oxypora crassispinosa Nemenzo, 1979					X			Х					

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2)</sup> .	Additional Comments
<i>Oxypora glabra</i> Nemenzo, 1959	X		X	Х		Х	4309	Х					
Oxypora lacera (Verrill, 1864)	Х	Х	Х	Х	Х		4322; 4324; 4325; 4327; 4328; UR	Х	Х				
Pectinia alcicornis (Saville-Kent, 1871)	X				Х			Х	Х			(G)	
Pectinia elongata Rehberg, 1892									X			(G)	
<i>Pectinia lactuca</i> (Dana, 1946)	X							Х	Х	Х		(G)	
Pectinia paeonia (Dana, 1846)	X		X				216; 4311; 4329	Х	Х	Х		(G)	
Family EUPHYLLIDAE													
Catalaphyllia jardinei (Saville–Kent, 1893)							3922	Х					
<i>Euphyllia ancora</i> Veron & Pichon, 1980							Fishery export database	Х				(S)	
<i>Euphyllia cristata</i> Chevalier, 1971	Х		Х		Х		45; 90; 113; 120; 217; 4337; 4340; 359	Х	Х			(S)	
<i>Euphyllia glabrescens</i> (Chamisso & Eysenhardt, 1821)	X	Х	X				3921; UR	Х	Х	Х		(S)	
Euphyllia yaeyamaensis (Shirai, 1980)							UR	Х	Х			(S)	
Plerogyra simplex Rehberg, 1892				Х				Х	Х	Х		(S)	WCMC records occurrence for Fiji as questionable
Plerogyra sinuosa (Dana, 1846)	X	х	X	Х	X		227; 4332; 4333; 4334; 4336; 4339	Х	Х			(S)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Family DENDROPHYLLIIDAE													
Balanophyllia spp. Searles & Wood, 1844			х		x			X					WCMC accepts 57 species in this genus with none occurring in Fiji.
Heteropsammia cochlea (Spengler, 1781)									Х				
Tubastraea aurea (Quoy & Gaimard, 1833)	X						cf. 4343	X	X			(G)	<i>T. aurea</i> treated by WCMC as a synonyn of <i>T.</i> <i>coccinea</i>
<i>Tubastraea coccinea</i> Lesson, 1829					X			X				(G)	
<i>Tubastraea micrantha</i> Ehrenberg, 1834	X	Х	X	Х	X		219; 4344; 4345	X		Х		(G)	
<i>Turbinaria frondens</i> (Dana, 1846)			X		X		cf. 154; 46; 4347; 4350; 4354; cf. 4351	X	Х	Х	Х	(G)	
Turbinaria heronensis Wells, 1958	X						UR	X				(G)	
<i>Turbinaria mesenterina</i> (Lamarck, 1816)	X	Х	X		X		264; 304; 4348; 4349	X	X	Х		(G)	
<i>Turbinaria patula</i> (Dana, 1846)			X					X	Х	Х		(G)	
<i>Turbinaria peltata</i> (Esper, 1794)	X	Х	X	Х	Х		218; 4346	X	Х	Х		(G)	
<i>Turbinaria radicalis</i> Bernard, 1896							cf. 4355					(G)	
<i>Turbinaria reniformis</i> Bernard, 1896	X	Х	X	Х	X		cf. 4352; UR	X	Х			(G)	
Turbinaria stellulata (Lamarck, 1816)	X		X		X		332; 435; 435; UR3	Х	Х	Х		(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba Is. (Taylor <i>et al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Family CARYOPHYLLIDAE													
Heterocyathus aequicostatus Milne Edwards & Haime, 1848							NMNH	Х	Х				
Order STOLONIFERA													
Family TUBIPORIDAE Tubipora musica Linnaeus, 1758	X	Х	X	Х	X		47	X		Х		(S)	
Class HYDROZOA													
Order MILLEPORINA									Х				
Family MILLEPORIDAE													
<i>Millepora dichotoma</i> Forskål, 1775			Х		Х	Х		Х		Х		(G)	
<i>Millepora exaesa</i> Forskal, 1775					Х			Х		Х		(G)	
<i>Millepora intricata</i> Milne Edwards & Haime, 1857					Х			Х				(G)	
<i>Millepora platyphylla</i> Hemprich & Ehrenberg, 1834			X			Х	148; 48	Х				(G)	
<i>Millepora tenella</i> Ortman, 1892	X							Х		Х		(G)	WCMC treats this taxon as synonym of <i>M.tenera</i> (Boschma 1949)
<i>Millepora tuberosa</i> Boschma, 1966			х		Х	Х		Х		Х		(G)	WCMC treats this taxon as synonym of <i>M. exaesa</i>
Family STYLASTERIDAE									Х				
Distichopora borealis Fisher, 1938			X					Х				(G)	
Distichopora nitida Verrill, 1864					X			Х				(G)	

<b>Taxonomy</b> (Veron 1993, 2000; Wallace 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Cakaulevu Reef & North Vanua Levu (Jenkins <i>et al.</i> 2006)	Yadua & Yadua Taba IS. (Taylor <i>et</i> <i>al.</i> , 2002)	Great Astrolabe Reefs (Koven & Paulay 1997; Littler et al. 1997)	Astrolabe Reef, Kadavu (Obura & Mangubhai 2003)	Mamanuca Is & Coral Coast (Fenner 2006)	Votua Village (Bonito in prep.)	Voucher collection <sup>(1)</sup>	Fiji Hard Coral Species Records	Predicted species occurrence (Veron 2000)	Occurrence UNEP-WCMC species database	Type Specimens from Fiji (Veron 1993; Wallace 1999)	Export quota for Fiji at genus (G) or species (S) level <sup>(2).</sup>	Additional Comments
Distichopora violacea Pallas, 1766					Х	Х	24	Х		Х		(G)	
Stylaster sanguineus Milne Edwards & Haine, 1850			X					Х		Х		(G)	
Order COENOTHECALIA													
Family Helioporidae													
<i>Heliopora coerulea</i> Pallas, 1776							UR	Х	Х				
Number of: Scleractinians	187	95	137	131	227	150	212	342	345		47		342 spp. in 72 genera
Number of non-Scleractinan hard corals	2	1	6	1	7	4	4	12	3		0		12 spp. in 5 genera
Total number of coral species	189	96	143	132	234	154	216	354	348				

### 1) Key to voucher origin of the specimens

NMHH - Smithsonian National Museum of Natural History specimens; G - Museum of Tropical Queensland specimens (Wallace, 1999); UR - Unregistered specimens have been identified but not yet entered into University of the South Pacific (USP) Coral Collection Database; numbered specimens with no prefix - USP Coral Collection.

The USP coral collection has 804 specimens. The collection was initiated under the tutelage of Dr. Bruce Carlson and Mike Gawal as a Peace Corp project in 1972. Records from the USP coral collection have been collated in a report (Pichon 1980). The taxonomy was updated in 1980 based on the work of Veron, Pichon and Wijsman-Best (1977).

The following reports have records which are the result of rapid assessment with photo images (but for which no voucher specimens were collected):

- (i) records for Votua Village southern Viti Levu are derived from Bonito (in prep);
- (ii) records for the Mamanucas and Coral Coast are visual records and are tabled in Fenner (2006) and Zann and Lovell (1992);
- (iii) records for Yadua and Yadua Taba Is are visual records and are tabled in Taylor *et al.* (2002);
- (iv) records for the Great and North Astrolabe Reef, Kadavu are detailed in Obura and Mangubhai (2003), Koven and Paulay (1997) and Littler *et al.* (1997);
- (v) records for North Vanua Levu and Cakaulevu are derived from Lovell (2006);
- (vi) unsubstantiated species records from rapid survey assessments (Fenner 2007): *Pocillopora setichelli* Hoffmeister, 1929; Acropora batunai Wallace, 1997; Acropora pharaonis (Milne Edwards & Haime 1860); Coscinaraea monile (Forskål 1775); Pavona bipartita Nemenzo 1955; Pavona chiriquiensis Glyn, Mate and Stemann 2001; Pavona gigantea Verrill 1896; Echinophyllia echinoporoides Veron and Pichon 1979; Dendrophyllia cf. coccinea (Ehrenberg 1834) E. echinoporoides is notable as it has been found in Tonga. P. bipartita was predicted to occur in Fiji by Veron (2000).
- 2) <u>Export quotas</u>.

The final column summarises the presence and absence of export quotas for Fiji at the species (S) and genus (G) level for 2008. The number of species included within the quota for each genus is recorded in Table 9. For Scleractinian corals, 30 genera are included within the export quota and 42 genera are not. Four non-Scleractinian hard coral genera representing 11 species are included within the quotas. This equates to 242 species in 34 genera being eligible for collection within the quota framework. The remainder (112 species) are excluded from the quota and not permitted for collection. *Heliopora coerulea* is the only non-scleractinian coral occurring in Fiji which is not permitted for export. There are no species with published zero export quotas for 2008 (see section 6.3).

3) <u>Uncertain identification of taxa</u>.

The abbreviation "cf." associated with site presence or voucher identification number refers to uncertainty with regard to the species identification. The designation is considered the closest match to that species but not similar enough for confident confirmation. The entries have been included for completeness (catalogued voucher specimens & site records) but are **not** included in the total tally of species occurring in Fiji.

4) Wallace *et al*, (2007) has recently revised the genus *Acropora* elevating the subgenus *Isopora* to genus level.

### 4. Species from the Central Southwest Pacific

Reef diversity, amongst other factors can be influenced by total reef area. Table 2 lists reef areas for the countries considered in this checklist, namely Vanuatu, Fiji, Tonga, Samoa, and American Samoa.

**Table 2.** Total reef area for countries within the central southwest Pacific considered in this checklist, (adapted from Spalding *et al.* 2001). Countries are ordered in rows along a geographical gradient from west to east.

Country	Reef area (km <sup>2</sup> )
Vanuatu	4,110
Fiji	10,020
Tonga	1500
Samoa	490
American Samoa	220

For these countries, expeditions and survey and monitoring programmes provided information on species presence. The records listed in Table 3 were derived from the following sources:

- (i) Vanuatu: Done and Navin (1990), Veron (1990)
- (ii) Fiji : see Table 1
- (iii) Tonga: Van Woesik (1997).
- (iv) Samoa: Lovell and Toloa (1994, 2002) Lovell (2004a), South *et al.* (2003)
- (v) American Samoa: National Park of American Samoa (2007); Birkeland *et al.* (1990, 1997), Fisk and Birkeland (2002); Munday (1996); Lamberts (1980, 1983)

and, generally, Wallace (1999) and Veron (1993).

In Table 3, the species lists are compiled by country. Voucher specimens exist for American Samoan records. For the genus *Acropora*, the Museum of Tropical Queensland (Wallace 1999) records are listed.

**Table 3**. Records of CITES controlled hard corals from Vanuatu, Fiji, Tonga, Samoa and American Samoa (Orders Scleractinia; Stolonifera; Milleporina; Coenothecalia). Countries are ordered in columns along a geographical gradient from west to east. Occurrence recorded by the WCMC species database is denoted by a lower case x.

Taxonomy							
(Veron, 2000; Wallace, 1999)	=				n		
Parentheses around the author citation indicate that this is not the original taxonomic placement.	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
Class ANTHOZOA							
Subclass ZOOANTHERIA Order SCLERACTINIA							
Family							
ASTROCOENIIDAE							
Stylocoeniella armata (Ehrenberg, 1834)		Х			X x	52847	
Stylocoeniella guentheri (Bassett-Smith, 1890)	Х	Х			X x	52846	
Madracis kirbyi Veron & Pichon, 1976		Х					
Family POCILLOPORIDAE							
Palauastrea ramosa	Х						
Yabe & Sugiyama 1941	Х						
Pocillopora ankeli Sheer & Pillai 1974					X x		
<i>Pocillopora capitata</i> Verrill, 1864		Х					
Pocillopora damicornis	Х	Х	Х	Х	Х	53018	
(Linnaeus, 1758)	х	х			х		
<i>Pocillopora danae</i> Verrill, 1864		х		Х	X x		
<i>Pocillopora elegans</i> Dana, 1846					X x	53023	
Pocillopora eydouxi Milne Edwards & Haime, 1860	X x	X x	Х	Х	X x	53020	
Pocillopora indiania Veron, 2000				X		Likely confusion with Pocillopora capitata as P. indiania has a western Indian Ocean range.	
<i>Pocillopora ligulata</i> Dana, 1846					X x		
Pocillopora meandrina	Х	Х	Х	Х	X	53022	
(Dana, 1846)	х				x		
Pocillopora verrucosa (Ellis & Solander, 1786)	X x	X x	X	Х	X x	53019	
Pocillopora woodjonesi (Vaughan, 1918)		Х	X	Х	X x		
Seriatopora aculeata		Х			~		
Quelch, 1886 Seriatopora caliendrum	Х	Х					
Ehrenberg, 1834	x						

<sup>3</sup> See key at end of table to references within this column.

<b>Taxonomy</b> (Veron, 2000; Wallace, 1999) Parentheses around the author citation indicate that this is not the original taxonomic	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
placement.							
Seriatopora hystrix	Х	Х	Х	Х			
Dana, 1846	Х	X		Х	Х		
Stylophora pistillata	Х	Х		Х	Х		
Esper, 1797	X	X			X		
Stylophora subseriata Ehrenberg, 1834		Х					
Family ACROPORIDAE							
Acropora (A.)	Х	Х					
abrolhosensis	X	21					
Veron, 1985							
Acropora (A.)	Х	Х	Х	Х	Х	52942; 52884; G33316;	
abrotanoides				х	х	G34716; G38978;	
(Lamarck, 1816)						G38987-8; G41289;	
						G43489; G43493;	
	X	X	X	X	X	G54263	
Acropora (A.) aculeus (Dana, 1846)			A			G34752; G34870; G43473; 52915	
Acropora (A.) acuminata	X X	X X	X	X X	X X	52891; G34732; G36627;	
(Verrill, 1864)	X	X	Λ	л	X X	G41290	
Acropora (A.) anthocercis (Brook, 1893)	X x	Х					
Acropora (A.) aspera	X	Х	Х	Х	Х	G34733; G38977;	
(Dana, 1846)	х	х	х	х	х	G41198-9; G41287; G43464; G54270	
Acropora (A.) austera	Х	Х	Х	Х	Х	52898; G34754;	
(Dana, 1846)	х	х		х	х	G34756-60	
Acropora (A.) azurea Veron & Wallace, 1984		Х			X x	52912	
Acropora (A.) bushyensis Veron & Wallace, 1984					Х		
Acropora (A.) carduus (Dana, 1846)	X x	X x	Х	X x	X x	52926; G43461	
Acropora (A.) caroliniana	Х	Х					
(Nemenzo, 1976)	X X	X	v	v		C22207. C2((20	
Acropora (A.) cerealis (Dana, 1846)	X X	X X	X x	X x	х	G33307; G36630; G36639; G38981;	
(Dalla, 10+0)	л	л	л	л	л	G41274; G43468;	
						G43471; G43478	
Acropora (A.)	Х	Х		Х			
<i>chesterfieldensis</i> Veron & Wallace, 1984	х						
Acropora (A.) clathrata (Brook, 1891)	X x	Х		X x	X x	52921; G34875; G34881; G41295; G54273-4	
Acropora (A.) cophodactyla (Brook, 1842)		Х			X x		
Acropora (A.) copiosa Nemenzo, 1967	X x						
Acropora (A.) cytherea (Dana, 1846)	X X X	X x	X	X x	X x	52907; G36626; G38976; G38986; G38989; G41290; G43470; G43487	

<b>Taxonomy</b> (Veron, 2000; Wallace, 1999) Parentheses around the author citation indicate that this is not the original taxonomic	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
placement.			37	37			
Acropora (A.) dendrum	Х		Х	Х			
(Basset-Smith, 1890)	X X	X	X	X	v	529(4, 02472(, 0247(7,	
Acropora (A.) digitifera (Dana, 1846)			Λ		X x	52864; G34726; G34767; G41194-7; G54266-7	
Acropora (A.) divaricata	X X	X X	X	X X	X	52922; G41299; G43474;	
(Dana, 1846)	X	X		x	x	G43480	
Acropora (A.) donei	Х	Х	Х		X	52904	
Veron & Wallace, 1984	х				x		
Acropora (A.) echinata	Х	Х	Х				
(Dana, 1846)	Х	Х					
Acropora (A.) elseyi	Х	Х	Х		Х	52927	
(Brook, 1892)	X	X			X		
Acropora (A.) exquisita	X	Х					
Nemenzo, 1971 Acropora (A.) florida	X X	X	X	X			
(Dana, 1846)	A X	A X	A X	Λ			
Acropora (A.) gemmifera	X	X	X	X	X	52875; G34719; G34725;	
(Brook, 1892)	X	x		x	x	G34729; G34876;	
						G41210-29; G41285;	
						G43469; G49060	
Acropora (A.) glauca		Х		Х	X	52882; G41284	
Brook, 1893		Х		Х	x		
Acropora (A.) globiceps		Х		Х	Х		
(Dana, 1846)	37	37	37	37	X	<b>50</b> 000	
Acropora (A.) grandis	X	Х	Х	Х	X	52889	
(Brook, 1892) Acropora (A.) granulosa	X X	X X	X		X X		
(Milne Edwards & Haime, 1860)	X	X	Λ		А		
Acropora (A.) horrida		Х	Х		Х	52895	
(Dana, 1846)		х			x		
Acropora (A.) humilis (Dana, 1846)	X x	X x	X x	X x	X x	52868; G33229-35; G34717; G34727; G34731; G34736-7; G34762-3; G34773; G34882; G41204-9; G43462	
Acropora (A.) hyacinthus (Dana, 1846)	X x	X x	X x	X x	X x	52910; 52872; G38990; G41296; G43467;	
						G43481	
Acropora (A.) insignis Nemenzo, 1967	X	Х					
Acropora (A.) intermedia (Dana, 1846)	Х	X	X	X x	X x	52885; 52890; 52886; G34722; G34871; G36636; G41293; G43463; G43465; G43496; G43498; G54269	Also known as junior synonym <i>Acropora</i> <i>nobilis</i> (Dana 1846)
Acropora (A.) kirstyae				cf.			
Veron and Wallace, 1984				Х			
Acropora (A.) latistella	Х	Х	Х	Х	Х	52912; G54268	
(Brook, 1892)	х	х		х	х		

Taxonomy							
(Veron, 2000; Wallace, 1999) Parentheses around the author citation indicate that this is not the original taxonomic	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
placement. Acropora (A.) listeri	X		X	x	X	52888; G34718; G34720;	
Brook, 1893	X		x	Λ	X	G34761; G36629; G36643	
Acropora (A.) lokani Wallace, 1994		Х					
Acropora (A.)	Х	Х	Х		х		
<i>longicyathus</i> (Milne Edwards & Haime, 1860)	х	Х					
Acropora (A.) loripes (Brook, 1892)	X x	Х	Х		Х		
<i>Acropora (A.) lovelli</i> Veron & Wallace, 1984	X x	Х					
Acropora (A.) lutkeni Crossland, 1952	X x	X x	X	X x	X x	52920; G34721; G34730; G34735; G34878; G41200-3; G41292; G41298; G54264	
Acropora (A.) microclados (Ehrenberg, 1834)	X x	X x	X	X x	X X	52908; G41286	
Acropora (A.)	Х	Х	Х	Х	Х	52893	
microphthalma (Verrill, 1869)	x	х			х		
Acropora (A.) millepora (Ehrenberg, 1834)	X x	X x	X x		Х	52941	
Acropora (A.) monticulosa (Bruggemanni, 1879)	X x	X x	X	X x	X x	52876; G34818; G34879	
Acropora (A.) multiacuta Nemenzo, 1967		Х					
Acropora (A.) muricata (Linneaus, 1758)		X		X	X	52890; G34734; G34872; G41193; G41288; G43460; G43497	Also known as or as junior synonym <i>Acropora (A) formosa</i> (Dana 1846). WCMC does not recognise this species
Acropora (A.) nana (Studer, 1878)	X x	X x		X x	X x	52914; G36637	
Acropora (A.) nasuta (Dana, 1846)	X x	X x	X	X	X x	52870; G33296-7; G33299; G34723; G34728; G34869;	
						G34749; G34877; G36641; G36645; G41190; G41191; G43457-8; G43466	
Acropora (A.) palmerae Wells, 1954	X x	Х			X x	52885	
Acropora (A.) paniculata Verrill, 1902	X x	X x		X x	X x	52909; G43459	
Acropora (A.) parilis Quelch, 1886	X x						
Acropora (A.) pectinatus Veron, 2002		Х					WCMC does not recognise this species

<b>Taxonomy</b> (Veron, 2000; Wallace, 1999) Parentheses around the author citation indicate that this is not the original taxonomic	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
placement. Acropora (A.) plana Nemenzo, 1967		X					
Acropora (A.) polystoma (Brook, 1891)	X x	Х	X	cf. X x	X x	52887; G43475; G54271-2	
Acropora (A.) prostrata (Dana, 1846)	Х	X x					
Acropora (A.) pulchra (Brook, 1891)	X x	X x	Х	X x	X x	52900; G33317; G34873; G41179-89	
Acropora (A.) rambleri (Bassett-Smith, 1890)	X x	Х			x		
Acropora (A.) retusa (Dana, 1946)		X x		Х	X x		
Acropora (A.) robusta (Dana, 1846)		X x	X	X x	X x	52883; G33308-10; G34745-8; G34750; G34771; G34774; G34883; G36632; G38984; G41230-5; G41294; G43494; G51214	
Acropora (A.) rosaria (Dana, 1846)	X x	х					
Acropora (A.) samoensis (Brook, 1891)	X x	X x	Х	X x	X x	52877; G34724; G34817; G41236	
Acropora (A.) sarmentosa (Brook, 1892)	X x	X x	Х	x		G34772	
Acropora (A.) secale (Studer, 1878)	X x	X x	Х	X x	X x	52919; G34755; G36642; G43479; G43486	
Acropora (A.) selago (Studer, 1878)	X x	Х	X	X	X x	52945	
Acropora (A.) seriata (Ehrenberg, 1834)				cf. X			
Acropora (A.) solitaryensis Veron & Wallace 1984	X x						
Acropora (A.) spathulata (Brook, 1891)		Х					WCMC does not recognise this species
Acropora (A.) speciosa (Quelch, 1886)		X x					
Acropora (A.) spicifera (Dana, 1846)		X x	x		X x	53130	
Acropora (A.) striata (Verrill, 1866)				X			
Acropora (A.) subglabra (Brook, 1891)	X x	X x	X				
Acropora (A.) subulata (Dana, 1846)	X x	X x	Х	X	X x	571807	
Acropora (A.) tenuis (Dana, 1846)	X x	X x	X x	X	X x	52902	
Acropora (A.) tortuosa (Dana, 1846)		X x	X				

Taxonomy (Veron, 2000; Wallace, 1999) Parentheses around the author citation indicate that this is not the original taxonomic	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
placement.		V	V			0.41292	
Acropora (A.) valenciennesi (Milne Edwards & Haime, 1860)	X	X x	X	x	х	G41283	
Acropora (A.) valida (Dana, 1846)	X x	X x	X x	X x	X x	52918; G33301-6; G34769; G34880; G36644; G38979; G41192; G43483; G43485; G43488; G54275-6	
Acropora (A.) vaughani Wells, 1954		X x	Х		X x	52897	
Acropora (A.) verweyi Veron & Wallace, 1984	X x	Х	Х	x	X x	52880; G34874; G41297	
Acropora (A) willisae Veron & Wallace, 1984	Х	X					
<i>Acropora (A.) yongei</i> Veron & Wallace, 1984	X x	X x	X		X X	52906	
Acropora (I.) crateriformis (Gardiner, 1898)	х	Х		X x	X X	571773; G36633; G38980; G38983	
Acropora (I.) cuneata (Dana, 1846)	X x	X x	X x	X x	X X	52873; G43491-2	
Acropora (I.) palifera (Lamarck, 1816)	X x	X x	X	X	X X	G39455	
Anacropora forbesi Ridley, 1884	X x	X					
Anacropora puertogalerae Nemenzo, 1964	X x	Х					
Anacropora reticulata (Veron & Wallace, 1984)	X X						
Astreopora cucullata Yabe & Sugiyama, 1941		Х			x		
Astreopora elliptica Yabe & Sugiyama, 1941	х	X x	X		X x		WCMC treats this species as a synonym of <i>A. myriophthalma</i>
Astreopora expansa (Bruggemann, 1877)	Х						
Astreopora gracilis Bernard, 1896	X x	Х			X x	52999	
Astreopora listeri Bernard, 1896		X x	X	X	X x	52998	
Astreopora macrostoma Veron & Wallace, 1984	X x						
Astreopora myriophthalma (Lamarck, 1816)	X x	X x	x	Х	X x	52997	See A. elliptica above
Astreopora randalli Lamberts, 1980		X			X x		
Astreopora suggesta Wells, 1954		X		X			

Taxonomy					_		
(Veron, 2000; Wallace, 1999)	ıtu		a	a	American Samoa		
Parentheses around the author	Vanuatu	Fiji	Tonga	Samoa	samoa Samoa	Voucher collection <sup>3</sup>	Additional
citation indicate that this is not	/aı		T	Sa	Sa		Comments
the original taxonomic					A		
placement.	37	37		37	37	50070	
Montipora	Х	Х		Х	Х	52978	
<i>aequituberculata</i> Bernard, 1897	х				х		
<i>Montipora altasepta</i> Nemenzo, 1967	X	X					
Montipora angulata	X		X				
(Lamarck, 1816)							
<i>Montipora australiensis</i> Bernard, 1897				cfX			
Montipora calcarea					Х	52980	
Bernard, 1897	37	37			X	500//	
Montipora caliculata (Dana, 1846)	X x	X x			X x	52966	
Montipora capitata	Х	Х					
(Dana, 1846)	х						
<i>Montipora capricornis</i> Veron, 1985	X x						
Montipora cebuensis	X						
Nemenzo, 1976							
Montipora corbettensis	Х		Х	Х	Х	52975	
Veron and Wallace, 1984	x				X	52575	
Montipora	Х	Х					
<i>crassituberculata</i> Bernard, 1897	х						
Montipora danae	Х	Х	Х	Х	Х		
Milne Edwards & Haime, 1851	x	X					
Montipora digitata	X	X	X				
(Dana, 1846)	Х	х					
Montipora efflorescens	Х	Х	Х	Х	Х	52971	
Bernard, 1897	Х				X		
<i>Montipora effusa</i> (Dana, 1846)					X x	572301	
Montipora floweri	Х	X	Х		X		
Wells, 1954	x						
Montipora foliosa	X	Х	Х	х	Х	52977	
(Pallas, 1766)	X	X			X		
<i>Montipora foveolata</i> (Dana, 1846)	X x	X x	X x	Х	X x	52964 52984	See M. verrucosa
<i>Montipora grisea</i> (Bernard, 1897)	X x	Х	Х	Х	X x	52973	
Montipora hispida	X	X	X		X	52969	
Dana, 1846	х				х		
Montipora hoffmeisteri	Х	Х	Х		Х	52951	
Wells, 1954	X				X		
<i>Montipora incrassata</i> (Dana, 1846)	X x	X x	Х				
Montipora informis Bernard, 1897	X	Х	Х		X	52976	
Montipora millepora	X X		X		X X	52953	
Crossland, 1952		ļ	**		X	50051	
Montipora mollis	Х		Х	1	Х	52954	

Taxonomy (Veron, 2000; Wallace, 1999)	latu	ij	lga	10a	rican 10a		Additional
Parentheses around the author citation indicate that this is not the original taxonomic placement.	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Comments
Montipora monasteriata	Х	Х	Х	Х	X	52949	
(Forskal, 1775)	х	х		х	х		
Montipora nodosa (Dana, 1846)	X x	X x	Х	Х	X x	52972	
Montipora peltiformis (Bernard, 1897)	X x	Х	X		X x	52956	
Montipora samarensis Nemenzo, 1967	X x						
Montipora spongodes Bernard, 1897	X X X		X				
Montipora spumosa Lamarck, 1816	X X X		X x		x		
Montipora stellata Bernard, 1897	<u> </u>	Х	X				
Montipora tuberculosa (Lamarck, 1816)	x	Х	X	X	X x	52950	
Montipora turgescens Bernard, 1897	X x	Х	X	X	X X X	52957	
Montipora turtlensis Veron & Wallace, 1984					X X	52955	
Montipora undata Bernard, 1897	X x	Х	X		x		
Montipora venosa (Ehrenberg, 1834)	X x	X x	X	X	X x	52965	
Montipora verilli Vaughan, 1907					X x		
Montipora verrucosa (Lamarck, 1816)	X x	X x		X	X x	52962	WCMC treats this species as a synonym of <i>M. foveolata</i>
Family AGARICIIDAE							III. joveolulu
<i>Coeloseris mayeri</i> Vaughan, 1918	X x	Х	X		X x		
<i>Gardineroseris planulata</i> (Dana, 1846)	X X	X x	X		X x	53082	
<i>Leptoseris explanata</i> Yabe & Sugiyama, 1941	X x	X		X	X		
Leptoseris foliosa Dinesen, 1980	x				X		
Leptoseris gardineri Van der Horst, 1921		X x			x		
Leptoseris hawaiiensis Vaughan, 1907		X					
Leptoseris incrustans (Quelch, 1886)	X	Х			Х	572262	WCMC treats this species as a synonym of <i>L. hawaiiensis</i>
Leptoseris mycetoseroides Wells, 1954	X x	Х		X	X x	53043	
Leptoseris papyracea (Dana, 1846)	X x						
<i>Leptoseris scabra</i> Vaughan, 1907	X X X	Х			x		

<b>Taxonomy</b> (Veron, 2000; Wallace, 1999) Parentheses around the author	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional
citation indicate that this is not the original taxonomic	Var		$\mathbf{T}_{0}$	Sa	Ame Sa		Comments
placement. Leptoseris solida		Х					
Quelch, 1886							
Leptoseris yabei (Pillai & Scheer, 1976)	X x	X			X x	53508	
Pachyseris gemmae Nemenzo, 1955		X					
Pachyseris rugosa (Lamarck, 1801)	X x	X	X	Х	X		
Pachyseris speciosa	Х	X X	X	X	X	53087	
(Dana, 1846) Pavona cactus	X X	X X			X X	53067	
(Forskal, 1775) Pavona clavus	X X	X X	X		X X	53070	
(Dana, 1846)	х	х			А	55070	
Pavona decussata (Dana, 1846)	X x	X x	X	X	X x	53068	
Pavona diffluens (Lamarck, 1816)					Х	53079	
Pavona divaricata		Х	x		X X	53078	
(Lamarck, 1816) Pavona duerdeni		X X		X	X X		
(Vaughan, 1907)	V	X			X	520(0	
Pavona explanulata (Lamarck, 1816)	X x	Λ			х	53069	
Pavona frondifera (Lamarck, 1816)		Х	Х	Х	X x	53076	
Pavona maldivensis (Gardiner, 1905)	X	Х		Х	X x	53074	
Pavona minuta	X X	X	X		X	53071	
Wells, 1954 Pavona varians	X X	X	X	X	X X	53072	
Verrill, 1864	x X	x X	X	X	x X	53073	
Pavona (P.) venosa (Ehrenberg, 1834)	A X	л х	Λ	Λ	л Х	55075	
Family SIDERASTREIDAE							
<i>Coscinaraea columna</i> (Dana, 1846)	X x	X x	X	X	X x	53097	WCMC treats this genus as <i>Coscinastrea</i>
Coscinaraea exesa	Х	Х			A		
(Dana, 1846) Coscinaraea wellsi	X	X X					
Veron & Pichon, 1980 Psammocora contigua	X	X	X	X	X	52850	
(Esper, 1797)	х	х		Λ	х		
<i>Psammocora digitata</i> Milne Edward & Haime, 1851	X x	X x	Х		X x	52854	
Psammocora haimeana Milne Edward & Haime, 1851	X x	X	X	X	X x	52855	
<i>Psammocora nierstraszi</i> van der Horst, 1921		Х		Х	x		

<b>Taxonomy</b> (Veron, 2000; Wallace, 1999) Parentheses around the author	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
citation indicate that this is not the original taxonomic	Va		L	Ň	An S		comments
placement.		Х					
Psammocora obtusangula							
(Lamarck, 1816)	v	X X		v	V	52956	
Psammocora	Х	А		Х	Х	52856	
profundacella	Х				х		
Gardiner, 1898							
Psammocora superficialis	Х	Х			Х	52852	
Gardiner, 1898	Х				Х		
<i>Psammocora vaughani</i> Yabe & Sugiyama, 1936	Х	Х					
Pseudosiderastrea	Х						
tayamai	x						
Yabe & Sugiyama, 1935							
Family FUNGIIDAE			1		+ +		
Cantharellus jebbi		X			+ +		
Hoeksema, 1993							
Ctenactis albitentaculata		Х					
Hoeksema, 1989		х					
Ctenactis crassa	х	Х			х		
(Dana, 1846)		х					
Ctenactis echinata	Х	Х	Х		Х	53130	
(Pallas, 1766)	х	х			х		
Cycloseris costulata (Ortmann, 1889)		X x		х			WCMC treats this species as a synonym of
							Fungia costulata
Cycloseris cyclolites		Х					
(Lamarck, 1801)		х					
Cycloseris hexagonalis		Х					
Milne Edwards & Haime, 1848		х					
Cycloseris patelliformis	Х	Х			X	53139	
Boschma, 1923					x		
Cycloseris tenuis		Х	x		A		
(Dana, 1846)				37			
Cycloseris vaughani		Х		Х			
(Boschma, 1923)							
Diaseris distorta		Х					
Michelin, 1842		X					
<i>Fungia (D.) corona</i> Doederlein, 1901		X					
Fungia (D.) danai	Х	Х		Х	Х	53117	
Milne Edwards & Haime, 1851		х					
Fungia (D.) horrida	Х	X	x	X	Х	53120	
Dana, 1846			А	Λ		55120	
	X X	X X	X		X X		
<i>Fungia (D.) klunzingeri</i> Döderlein, 1901	Λ		Λ		Λ		
<i>Fungia (D.) scruposa</i> Kluzinger, 1879	х	X x		Х			
Fungia (F.) fungites	Х	X	Х	Х	X	53116	
(Linnaeus, 1758)	x	X	X		X		
Fungia (P.) mollucensis		X		X			
Van der Horst, 1919		X					

Taxonomy							
(Veron, 2000; Wallace, 1999)	Vanuatu		g	Ja	American Samoa		A J J 44 1
Parentheses around the author	nu	Fiji	Tonga	Samoa	samoa Samoa	Voucher collection <sup>3</sup>	Additional
citation indicate that this is not	Vai	_	Ľ	Sa	Sa		Comments
the original taxonomic					A		
placement. Fungia (P.) paumotensis	X	Х	X		Х	53128	
Stutchbury, 1833						33128	
Fungia (P.) scutaria	X X	X X	X X	X	X X	53127	
Lamarck, 1801	A X	л х		Λ	A X	33127	
Fungia (V.) concinna	X	X	X	x	X	53124	
Verrill, 1864		X	А	А		55124	
Fungia (V.) granulosa	X	X			X		
Klunzinger, 1879	X	X			л		
Fungia (V.) repanda	X	X	X	X	X	53123	
Dana, 1846	X	X	Λ	Λ	X	55125	
· · · · · · · · · · · · · · · · · · ·	Λ				л		
Fungia (V.) scabra		Х					
Doderlein, 1901		v					
Fungia (V) spinifer Claereboudt &		Х					
Hoeksema, 1987	v	v		v	v	52150	
Halomitra pileus	Х	Х	х	Х	X	53158	
(Linnaeus, 1758)	X X	X		X	X		
Heliofungia actiniformis		х					
(Quoy & Gaimard, 1833)	X	V	v	v	V	52152	
Herpolitha limax	Х	Х	Х	Х	Х	53153	
(Houttuyn, 1772)	X	X X	X		X		
<i>Herpolitha weberi</i> Horst, 1921		л					
	X	Х					
<i>Lithophyllon undulatum</i> Rousseau, 1854	Λ	л					
Lithophyllon mokai		Х					
Hoeksema, 1989	х						
Podabacia crustacea	X	X X					
(Pallas, 1766)	л х	л Х					
Podabacia motuporensis	X	X		cf.			
Veron, 1990	А	Л		X			
Polyphyllia	X	Х	x	X	x		
novaehiberniae	X	X	л	л	л		
(Lesson, 1831)	л	л					
Polyphyllia talpina		Х	Х		X		
(Lamarck, 1801)		x	X		Λ		
Sandalolitha robusta	Х	X	X		X	53160	
(Quelch, 1886)	x	21			X	55100	
Sandalolitha dentata	~	Х		Х	A		
(Quelch, 1884)		x		21			
Zoopilus echinatus	X	X					
Dana, 1846	X	X					
Family				1			
RHIZOPSAMMIDAE							
Rhizopsammia verrilli	1	Х	1	1			
Van der Horst, 1922							
Family PORITIDAE							
Alveopora allingi	1		1	Х	X	53234	
Hoffmeister, 1925					X		
Alveopora catalai	Х						
Wells, 1968	X						
Alveopora fenestrata	X						
(Lamarck, 1816)	x						

Taxonomy							
(Veron, 2000; Wallace, 1999)	itu		a	a	American Samoa		
Parentheses around the author	Vanuatu	Fiji	Tonga	Samoa	samoa Samoa	Voucher collection <sup>3</sup>	Additional
citation indicate that this is not	/ar	<b>H</b>	$\mathbf{T}_{0}$	Sai	me Sai		Comments
the original taxonomic				•-	A		
placement.							
Alveopora marionensis	Х	Х					
Veron & Pichon, 1882	Х						
Alveopora spongiosa	Х	X					
Dana, 1846	Х	X					
Alveopora tizardi	Х						
Basset-Smith, 1890	X			37			
Alveopora verrilliana	Х			Х	Х		
Dana, 1872	Х						
Goniopora columna	Х	Х		Х	Х		
Dana, 1846		X					
Goniopora djiboutiensis	Х	X	Х		Х		
Vaughan, 1907	X	37			37	5000 (	
Goniopora fruticosa		Х			Х	53226	
Saville-Kent, 1893					Х		
Goniopora lobata	Х	X	Х	Х			
(Milne Edwards &	Х						
Haime, 1860)	37	37					
Goniopora minor	Х	Х					
Crossland, 1952	X	37			37	52210	
Goniopora somaliensis	Х	X			Х	53219	
Vaughan, 1907	X				Х		
Goniopora stokesi	Х						
Milne Edwards & Haime,	х						
1851	v	v					
Goniopora stutchburyi	Х	Х					
Wells, 1955	X	v					
Goniopora tenuidens	Х	Х					
(Quelch, 1886)	X	v	v	v	v	52202	
Porites (P.) annae	Х	Х	Х	Х	X	53202	
Crossland, 1952	X X	v			X		
Porites (P.) attenuatae		Х					
Nemenzo, 1955	X	v	v		V	5210(	
Porites (P.) australiensis	X	X	X		X	53196	
Vaughan, 1918	X	X	v	v	X	52100	
Porites (P.) cylindrica	X	X	X	Х	X	53190	
Dana, 1846	X X	X	Х		Х		
Porites (P.) deformis							
Nemenzo, 1955	X				X		
Porites (P.) densa					Λ		
Vaughan, 1918	v	v			v	572207	
Porites (P.) horizontalata	X	Х			X	572397	
Hoffmeister, 1925	X X	<u> </u>			X		
Porites (P.) latistella					х		
Quelch, 1886	X X	X			X	53201	
Porites (P.) lichen						33201	
Dana, 1846	X X	X X	X	X	X X	52104	
Porites (P.) lobata			A	А		53194	
Dana, 1846	X	X V	v	X	X V	52102	
Porites (P.) lutea	X	X	X	А	X	53192	
Milne Edwards & Haime,	х	х	Х		Х		
1851 Paritas(P) montiouloga		v			v		
Porites(P.) monticulosa		X			X		
Dana, 1846	1	L	1	<u> </u>	Х		

<b>Taxonomy</b> (Veron, 2000; Wallace, 1999) Parentheses around the author citation indicate that this is not	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
the original taxonomic				•1	A S		
placement.		X	X		X	53195	
Porites (P.) murrayensis Vaughan, 1918		А	А		X X	53195	
Porites (P.) nigrescens	Х	Х	x	X	X	53200	
Dana, 1848	х	х			х		
Porites (S.) rus	Х	Х	Х	Х	Х	53188	
(Forskal, 1775)	X	X			Х	52102	
Porites (P.) solida (Forskal, 1775)	X x	X x			х	53192	
Porites (P.) stephensoni	X	Λ			x		
Crossland, 1952	x				<i>n</i>		
Porites (P.) vaughani	Х	Х	Х		Х	53203	
Crossland, 1952	х				х		
Stylaraea punctata		Х			Х		
(Linnaeus 1758)					X		
Family FAVIIDAE		37	37				
<i>Barabattoia amicorum</i> (Milne Edwards & Haime	X	Х	X x				
(Mille Edwards & Hallie 1850)	х		Х				
Caulastrea curvata	Х	Х					WCMC treats this genus
Wijsman-Best, 1972	х						as Caulastraea
Caulastrea echinulata		Х					
(Milne Edwards &							
Haime, 1849) Caulastrea furcata	Х	X	X	X	X		
Dana, 1846	X	X	X	Λ	X		
Caulastrea tumida		Х					
Matthai, 1928							
Cyphastrea agassizi		Х					
(Vaughan, 1907) Cyphastrea chalcidicum		X	X	X	X	53345	
(Forskal, 1775)			Λ	л		55545	
Cyphastrea decadia	Х	X					
Moll & Borel-Best, 1984	х						
Cyphastrea	Х	Х	Х		Х	53346	
<i>microphthalma</i>	х	Х			Х		
(Lamarck, 1816) Cyphastrea serailia	Х	Х	X	X	X	53344	
(Forskal, 1775)	X	X	Λ	Λ	X	55554	
Diploastrea heliopora	Х	Х	Х	Х	Х	53335	
(Lamarck, 1816)	Х	Х	Х		х		
Echinopora gemmacea	Х	Х	Х	Х	X	53350	
(Lamarck, 1816) Echinopora hirsutissima	X X	X			X X	53351	
Milne Edwards & Haime,	л х	л				55551	
1849							
Echinopora horrida	Х	Х	Х		Х		
(Dana, 1846)	X	X					
Echinopora lamellosa	Х	Х	Х	Х	Х	53349	
(Esper, 1795) Echinopora mammiformis	X X	X X			X		
(Nemenzo, 1959)	л х	л					
(							

Taxonomy (Veron, 2000; Wallace, 1999)	ltu		a	a	can a		
Parentheses around the author citation indicate that this is not the original taxonomic placement.	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
<i>Echinopora pacificus</i> (Veron, 1990)	х			Х			
Favia favus	Х	X	X	X	X	53271	
(Forskal, 1775)	x	x	x		x		
<i>Favia helianthoides</i> (Wells, 1954)	X x		X		X x	53277	
<i>Favia laxa</i> (Klunzinger, 1879)		х			Х	53272	
<i>Favia lizardensis</i> (Veron & Pichon, 1977)	X x		X				
<i>Favia maritima</i> (Nemenzo, 1971)	Х	X					
Favia matthaii	X X	X	X	Х	Х	53270	
Vaughan, 1918 Favia maxima	x	X	X		x		
Veron, Pichon & Wijsman-Best, 1977		Λ	Λ				
<i>Favia pallida</i> (Dana, 1846)	X	X	X		X	53265	
Favia rotumana	X	X X	X X		X X	53273	
(Gardiner, 1899)		х			х		
<i>Favia rotundata</i> (Veron, Pichon & Wijsman-Best, 1977)	X x	Х	Х				
Favia speciosa Dana, 1846	X x	X x	X x	X	X x	53264	
Favia stelligera (Dana, 1846)	X x	Х	X	Х	Х	53266	
Favia veroni	Х	X			X		
Moll & Borel-Best, 1984 Favites abdita	X X	X	X	X	X	53300	
(Ellis & Solander, 1786) Favites chinensis	X X	X X	X X		X X	53308	
(Verrill, 1866)	х				х		
<i>Favites complanata</i> (Ehrenberg, 1834)	X x	X x	X		X x	53304	
Favites flexuosa (Dana, 1846)	X x	X x	X	X	X x	53302	
Favites halicora	Х	X	X	X	Х	53301	
(Ehrenberg, 1834) Favites paraflexuosa Veron, 2002	X	X			X		
<i>Favites pentagona</i> (Esper, 1794)	X	X	X				
<i>Favites russelli</i> (Wells, 1954)	X X	X	X	X	X	53306	
Goniastrea aspera	X X	X	X	X	X X	53312	
Verrill, 1905 Goniastrea australensis	X X	X	X	X	X X		
(Milne Edwards & Haime, 1857)	x				X		
Goniastrea edwardsi Chevalier, 1971	X x	X x	X	X	X x	53311	

<b>Taxonomy</b> (Veron, 2000; Wallace, 1999) Parentheses around the author citation indicate that this is not the original taxonomic	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
placement.							
Goniastrea favulus	Х	Х	Х		Х	53313	
(Dana, 1846)	Х	x			Х		
Goniastrea minuta		Х			X		
Veron, 2000					Х		
Goniastrea pectinata	Х	Х	Х	Х	Х	53314	
(Ehrenberg, 1834)	Х	х	х		Х		
Goniastrea retiformis	Х	Х	Х	Х	Х	53310	
(Lamarck, 1816)	Х	х	х		Х		
Leptastrea bewickensis (Veron, Pichon & Wijsman-Best, 1977)		Х		X	X x	53341	
Leptastrea inaequalis	Х						
Klunzinger, 1879	x						
Leptastrea pruinosa	X	Х	Х				
Crossland, 1952	х						
Leptastrea purpurea	Х	Х		Х	Х	53338	
(Dana, 1846)	х	x			х		
Leptastrea transversa	Х	Х	Х	Х	Х	53339	
Klunzinger, 1979	х				х		
Leptoria phrygia	Х	Х	Х	Х	Х	53326	
(Ellis & Solander, 1786)	Х	х	х		х		
Montastrea annuligera	Х	Х	Х		Х		WCMC treats this genus
(Milne Edwards &	х	х			х		as Montastraea
Haime, 1849)							
Montastrea curta	Х	Х	Х	Х	Х	53257	
(Dana, 1846)	Х	x	х		х		
Montastrea magnistellata	Х	Х	Х				
Chevalier, 1971	Х						
Montastrea multipunctata	Х						
Hodgson, 1985	Х						
Montastrea salebrosa	Х	Х					
(Nemenzo, 1959)							
Montastrea valenciennesi (Milne Edwards & Haime 1848)	X x		X		X x	53260	
<i>Oulophyllia bennettae</i> (Veron & Pichon, 1977)	X x	Х	X	X			
Oulophyllia crispa	Х	Х	Х	Х	Х	53328	
(Lamarck, 1816)	Х				X		
Platygyra acuta Veron, 2002		X					
Platygyra contorta Veron, 1990	Х				X x		
Platygyra daedalea	Х	Х	Х	Х	Х	53318	
(Ellis & Solander, 1786)	Х	Х	Х		Х		
Platygyra lamellina (Ehrenberg, 1834)	X x	X x	X x		х		
<i>Platygyra pini</i> Chevalier, 1975	X x	Х	X	X	X x	53321	
Platygyra ryukyuensis	X	-	<u> </u>	1	A		
Yabe & Sugiyama, 1936	л Х						

Taxonomy							
(Veron, 2000; Wallace, 1999)	Vanuatu		a	a	American Samoa		
Parentheses around the author	IUa	Fiji	Tonga	Samoa	samoa Samoa	Voucher collection <sup>3</sup>	Additional
citation indicate that this is not	an	<b>H</b>	$\mathbf{T}_{0}$	Sal	me Sai	vouener concerton	Comments
the original taxonomic			-	•1	Ā		
placement.							
Platygyra sinensis	Х	Х	Х	Х	Х	53320	
(Milne Edwards &	x				х		
Haime, 1849)							
Plesiastrea versipora	Х	Х		Х	Х		
(Lamarck, 1816)	x	x					
Family							
TRACHYPHYLLIIDAE							
Trachyphyllia geoffroyi		Х					
(Audoin, 1826)							
		X					
Family OCULINIDAE	37	37	37		37	52.400	
Galaxea astreata	Х	Х	Х		Х	53408	
(Lamarck, 1816)	X	X			X		
Galaxea fascicularis	X	Х	Х	Х	X	53409	
(Linnaeus, 1767)	X	Х			X		
Galaxea horrescens	Х	Х	Х		х		WCMC treats this
(Dana, 1846)	х	х					species as a synonym of
							Acrhelia horrescens
Galaxea paucisepta				Х	I T		
Claereboudt, 1990							
Family MERULINIDAE							
Paraclavarina		Х			х		
triangularis							
Veron, Pichon &							
Wijsman-Best, 1979							
Hydnophora exesa	X	Х	X	X	X	53444	
(Pallas, 1766)	x	x	X		X	33444	
Hydnophora grandis	A	X	Λ		Λ		
Gardiner, 1904		Λ					
,	X	Х	X		Х	52445	
Hydnophora microconos			А			53445	
(Lamarck, 1816)	X	X	37		X		
Hydnophora pilosa	X		Х				
Veron, 1985							-
Hydnophora rigida	Х	Х	Х	Х	Х	53442	
(Dana, 1846)	Х	X			Х		
Merulina ampliata	Х	Х	Х	Х	Х	53435	
(Ellis & Solander, 1786)	х	х			х		
Merulina scabricula	Х	Х		Х	X	53456	
(Dana, 1846)	х	х			х		
Scapophyllia cylindrica	Х	Х			X	53440	
(Milne Edwards &	X	X			X		
Haime, 1848)							
Family MUSSIDAE	1		1				
Acanthastrea bowerbanki	X	Х			<del>   </del>		
(Milne Edwards &	X						
Haime, 1851)							
Acanthastrea brevis		Х			+ +		
		Λ					
Milne-Edwards & Haime,							
1849							
Acanthastrea echinata	Х	Х	Х		Х	53502	
(Dana, 1846)	X	X			Х		<u> </u>
Acanthastrea hemprichii		Х	Х	Х			
(Ehrenberg, 1834)							

Taxonomy							
(Veron, 2000; Wallace, 1999)	ıtu		a	a	can		
Parentheses around the author citation indicate that this is not the original taxonomic	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
placement.							
Acanthastrea hillae	Х	Х	Х		Х		
Wells, 1955	X	X					
Acanthastrea ishigakiensis Veron, 1990	х	А					
Acanthastrea subechinata		Х					
(Veron, 2002)		Λ					
Blastomussa wellsi	Х	Х					
Wijsman-Best, 1973	х						
Cynarina lacrymalis		Х					
(Milne Edwards &							
Haime, 1848)							
Lobophyllia corymbosa	Х	Х	X		X	53508	
(Forskal, 1775)	X X	X	Х		X		
Lobophyllia diminuta (Veron, 1985)	X X						
Lobophyllia hataii	л	X					
(Yabe, Sugiyama &		X					
Eguchi, 1936)							
Lobophyllia hemprichii	Х	Х	Х		Х	53507	
(Ehrenberg, 1834)	x	х	Х		X		
Lobophyllia pachysepta	Х	Х					
(Chevalier, 1975)	X						
Lobophyllia robusta		Х					
(Yabe & Sugiyama, 1936) Micromussa amakusensis	v	X	X				WCMC treats this
(Veron, 1990)	х	Λ	Λ				species as a synonym of Acanthastrea amakusensis
Scolymia vitiensis	Х	Х	Х				
Bruggemann, 1877	х	х					
Symphyllia agaricia	Х	Х	Х				
Milne dwards & Haime, 1849	Х						
Symphyllia hassi Pillai & Scheer, 1976		X					
Symphyllia radians	Х	Х	Х				
(Milne dwards & Haime, 1849)	x	X	X				
Symphyllia recta	Х	Х	Х	Х	Х	53516	
(Dana, 1846)	X	X			X		
<i>Symphyllia valenciennesii</i> Milne Edwards & Haime, 1849	X x	Х	Х				
Family PECTINIDAE							
Echinomorpha nishihirai		Х	1	1			WCMC treats this
Veron, 1990							species as a synonym of Echinophyllia nishihirai
Echinophyllia aspera	Х	Х	Х	Х	Х	53458	
(Ellis & Solander, 1786)	х				х		

Taxonomy	_				u		
(Veron, 2000; Wallace, 1999)	Vanuatu		ga	Samoa	American Samoa		Additional
Parentheses around the author	nu	Fiji	Tonga	m	eri	Voucher collection <sup>3</sup>	Comments
citation indicate that this is not	Va		Ē	Š	S, M		Comments
the original taxonomic	F				<b>V</b>		
placement.		X					
Echinophyllia echinata		А					
(Saville-Kent, 1871)			37				
Echinophyllia			Х				
echinoporoides							
Veron & Pichon, 1980							
Echinophyllia orpheensis		Х					
Veron & Pichon, 1980							
Echinophyllia patula		Х					
(Hodgson & Ross, 1982)							
Mycedium elephantotus	Х	Х	Х	Х	Х	53466	
(Pallas, 1766)	x	х			х		
Mycedium mancaoi	1	Х		1			
(Nemenzo, 1979)							
Mycedium robokaki	Х	Х		X			
Moll & Borel-Best, 1984	X			1			
Oxypora crassispinosa	Λ	X		Х	<u> </u>		
Nemenzo, 1979				Λ			
		X	X		├		
Oxypora glabra		Λ	л				
Nemenzo, 1959	37	37			v	52.4.62	
Oxypora lacera	Х	Х	Х		Х	53463	
(Verrill, 1864)	X				Х		-
Pectinia alcicornis	Х	Х					
(Saville-Kent, 1871)	Х						
Pectinia lactuca	Х	Х					
(Pallas, 1766)	х	X					
Pectinia paeonia	Х	Х					
(Dana, 1846)	х	х					
Family EUPHYLLIDAE							
Catalophyllia jardinei		Х					
(Saville-Kent, 1893)							
Euphyllia ancora		Х					
Veron & Pichon, 1980							
Euphyllia cristata	Х	Х					
Chevalier, 1971	x						
Euphyllia glabrescens	X	X		X	х		
(Chamisso & Eysenhardt,				~	Λ		
(Chamisso & Eysenhardt, 1821)	А						
1	X	X			├		
Euphyllia yaeyamaensis		Λ					
(Shirai, 1980)	X				├		
Physogyra lichtensteini	X						
Milne Edwards & Haime,	Х						
1851			L		└───┤		
Plerogyra simplex	Х	Х				53645	WCMC records
Rehberg, 1892	х	х					occurence as
							questionable for Fiji
Plerogyra sinuosa	Х	Х					
(Dana, 1846)	х						
Family							
DENDROPHYLLIIDAE							
Balanophyllia sp	х	Х					57 spp recorded by WCMC,
							none occurring in Fiji. B.
							<i>crassitheca</i> (Cairns 1995), <i>B.desmophyllioides</i> (Vaughan
	1						1907), <i>B. gemma</i> (Moseley

<b>Taxonomy</b> (Veron, 2000; Wallace, 1999) Parentheses around the author citation indicate that this is not the original taxonomic	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
placement.							1881), B. gigas (Mosely, 1881), B. laysanensis (Vaughan 1907) and B rediviva (Mosely 1881) recorded as occurring in Vanuatu.
Heteropsammia cochlea Sprengler, 1781	X x						
Tubastraea aurea (Quoy & Gaimard, 1833)		X					WCMC treats this species as a synonym of <i>T. coccinea</i>
<i>Tubastraea coccinea</i> Lesson, 1829		Х			x		
Tubastraea micrantha Ehrenberg, 1834		X x	x				
Turbinaria frondens (Dana, 1846)	X x	X x			x		
Turbinaria heronensis Wells, 1958		X					
Turbinaria mesenterina (Lamarck, 1816)	X x	X x	X x	X	X x	53818	
Turbinaria patula (Dana, 1846)	X x	X x					
<i>Turbinaria peltata</i> (Esper, 1794)	X x	X x	X x		x		
<i>Turbinaria reniformis</i> Bernard, 1896	X x	Х	X x	Х	X x	53819	
<i>Turbinaria stellulata</i> (Lamarck, 1816)	X x	X x	X x		X x	53820	
Family CARYOPHYLLIDAE							
<i>Heterocyathus</i> <i>aequicostatus</i> Milne Edwards & Haime, 1848		X					
Order STOLONIFERA Family TUBIPORIDAE							
Tubipora musica Linnaeus, 1758	Х	X x					WCMC records occurrence for Vanuatu as questionable.
Class HYDROZOA Order MILLEPORINA Family MILLEPORIDAE							
<i>Millepora dichotoma</i> Forskål, 1775	X	X	X		X	50881	
Millepora exaesa Forskal, 1775		X X X	X	X	X X X	572283	
Millepora intricata Milne Edwards & Haime, 1857		X			X		
Millepora murrayi Quelch,1884					Х	50887	WCMC treats this species as a synonym of <i>M. intricata</i>

<b>Taxonomy</b> (Veron, 2000; Wallace, 1999) Parentheses around the author citation indicate that this is not the original taxonomic placement.	Vanuatu	Fiji	Tonga	Samoa	American Samoa	Voucher collection <sup>3</sup>	Additional Comments
<i>Millepora platyphylla</i> (Hemprich & Ehrenberg, 1834)	х	Х	Х	Х	X x	50882	
<i>Millepora tenella</i> Ortman, 1892		X x			X x	50884	WCMC treats this species as a synonym of <i>M. tenera</i> (Boschma 1949)
<i>Millepora tuberosa</i> Boschma, 1966		X x			X		WCMC treats this species as a synonym of <i>M. exaesa</i>
Family STYLASTERIDAE							
Distichopora borealis Fisher, 1938		Х					
Distichopora gracilis Dana, 1846					X x	572080	
Distichopora nitida Verrill, 1864		Х					
Distichopora violacea Pallas, 1766		X x					
Stylaster sanguineus Milne-Edwards & Haine, 1850		X x					
Stylaster gracilis Milne Edwards & Haime, 1850					X x	50963	
Order COENOTHECALIA							
Family Helioporidae		v			V	52077	
<i>Heliopora coerulea</i> Pallas, 1776		X x			X x	52077	
Number of Scleractinian genera	59	72	41	40	44		
Number of Scleractinian species	279	342	186	147	210	186	
Number of non- Scleractinan hard corals	0	12	3	2	8	8	
Total number of coral species	279	354	189	149	218		

#### Key to Table 3.

All five- or six-digit numbers with a prefix of '5' are taxonomic serial numbers (ITIS 2007) and are references to the hard coral species recorded in the National Park of American Samoa (National Park of American Samoa 2007).

Numbers with "G" prefixes refer to the voucher collection held at the Museum of Tropical Queensland. Specimens are listed in the *Staghorn Corals of the World* (Wallace 1999).

#### Uncertain identification of taxa.

The abbreviation "cf." associated with site presence or voucher identification number refers to uncertainty with regard to the species identification. The designation is considered the closest match to that species but not similar enough for confident confirmation. The entries have been included for completeness (catalogued voucher specimens and site records) but are **not** included in the total tally of species occurring within the islands.

A number of species are predicted to occur in Fiji by Veron (2000), yet their occurrence is not confirmed either by references consulted for this report for Fiji (summarised in Table 1), nor do they occur in other central south-west Pacific countries (Table 2). A summary list of these species is provided in Table 4.

**Table 4.** Species that are predicted to occur in Fiji (Veron 2000) but which are considered doubtful due to the lack of records from Fiji or surrounding islands.

Acropora (A.) bruggemanni Acropora (A.) inermis Acropora (A.) schmitti Acropora (A.) tenella Acropora (A.) teres Acropora (A.) tutuilensis Acropora (A.) walindi Alveopora ocellata Astreopora ocellata Astreopora scabra Barabattoia laddi Cycloseris sinensis Cycloseris somervillei Cyphastrea ocellina Diaseris fragilis Favia danae *Favites bestae* Goniastrea palauensis Goniopora pandoraensis *Leptastrea bottae* Montipora lobulata Pavona bipartita Pectinia elongata Porites (P.) arnaudi Psammocora explanulata Seriatopora stellata Siderastrea savignyana

## 5. Convention on International Trade In Endangered Species of wild fauna and flora (CITES)

Fiji became a signatory to CITES in September 1997, but did not enact suitable legislation for its implementation until the end of 2002. The majority of exports of CITES-listed species from Fiji comprise live hard corals (Scleractinia), all of which were listed on Appendix II in 1990. Many species of Scleractinian corals have been controlled under CITES since 1985, which also lists blue corals (Helioporidae), organ-pipe corals (Tubiporidae), black corals (Antipatharia), fire corals (Milleporidae) and lace corals (Stylasteridae) on Appendix II. International trade is controlled by Fiji through the administration of voluntary coral export quotas, first published in 2002 (subsequently updated 18 November 2003; 15 December 2007; 28 August 2008). The quotas are listed in section 6.3 of this report. The quotas were developed in order to implement the requirements of Article IV of the Convention (regulation of trade in Appendix II species), by managing hard coral exports. The current quotas were established in consultation with the then Deputy Secretary-General of the CITES Secretariat, Dr. Jim Armstrong, the Aquarium Fisheries Officer Priti Singh, Traffic International representative Rob Parry-Jones and consultant, Ed Lovell. The protocol for quota establishment and progress towards non-detriment findings are detailed in the Traffic Oceania South Pacific Programme workshop report (Parry-Jones 2004).

The Government of Fiji administers the Convention through the Department of Environment who convenes the Scientific and Management Authorities for resolution of policy issues. It can be seen from the last column in Table 1 that 42 of the 72 Scleractinian genera and one of 12 non-Scleratinian genera occurring in Fiji are not included within the voluntary quota system, thus preventing their export. There is some desire within the market for additional species to be permitted for export; however, the CITES authorities in Fiji are reluctant to include further species without a resource assessment being undertaken.

Vanuatu and Samoa have also acceded to CITES; Tonga is not a signatory. American Samoa is an overseas territory of the United States, which acceded to CITES in 1975. An assessment of CITES awareness in Fiji, Vanuatu and Tonga was conducted as part of the South Pacific Regional Environment Programme in 2002 (Fisk and Lovell 2002, 2003; Fisk *et al.* 2003). Following this assessment, CITES Oceania Region capacity building workshops were held in Fiji in 2002 and in Brisbane, Australia in 2004.

## 6. The dynamics of hard coral abundance

Awareness of the occurrence of hard coral species in Fiji is an important dimension in understanding the nature of its coral reefs. Species abundance provides a more complete picture. Natural events such as cyclones, coral bleaching or floods alter the species composition and abundance of hard corals which have evolved within an environment in which intermittent disturbance is part of their ecology. Their occupation of varied habitats and their varied reproductive strategies allow recruitment in a reasonably short period of time.

### 6.1 Utilisation of hard corals as a fishery resource

Assessment has been carried out on the aquarium trade to determine its sustainability and its operation within best practice principles. Environmental impact assessments have been conducted in Fiji at the collecting areas of *Walt Smith International* (WSI) and *Aquarium Fish, Fiji* (AFF), two companies involved in the aquarium trade, to determine the nature of the resource and the impact of collection upon it. Subsequently, this work became part of a collection area management plan (Lovell 2002b, 2003a) as part of a certification programme (MAC 2003, 2004). The survey work on hard coral abundance was also conducted in both AFF's and WSI's collecting areas. This resulted in quantitative data that showed the level of coral colony extraction for the aquarium trade to be very low when compared with the total hard coral abundance. In Bau Waters on eastern Viti Levu, Vaughan (2000) demonstrated sustainability of the resource by employing a model used by the Forestry Department in areas of aquarium collection.

All indications from field assessments are that the trade in live coral is sustainable when all species are considered collectively. Scientific research on the live coral trade in Fiji (Lovell 2002c, 2002d, 2002e) provides evidence for the sustainability of the resource as a whole. Annual trade figures over six years (Scientific Council submission 2007 by the Fisheries Dept.) indicate the resource has been robust in terms of the level of export within the CITES designated categories for reporting. Management has improved with the implementation of CITES where export data are collated and are available for analysis and monitoring. However, it must be recognised that field assessments have to date been based only on two main collection areas and the studies undertaken have not assessed the impact of the trade on individual species or genera.

As recognised in the published overview by the World Wide Fund for Nature (Lovell 2001a), the positive characteristics of the live coral trade that promote sustainability are:

- a) the product has a market-mediated size limitation which is relatively small (3 cm-12 cm colony diameter), making the removal of living coral cover small;
- b) large reef areas are allocated for collection, which minimizes overall impact;
- c) there is a high diversity of reefs and habitats in the collection areas;

- d) the requirement for working within a well-defined Customary Fishing Rights Area, limits collection to a known area;
- e) there is a 'one operator, one area' Fisheries Division policy that allows conservation through management of the resource;
- f) the presence of large uncollected reefs peripheral to the collection areas ensure that any species depleted by collection would be re-established through recruitment from uncollected populations; and
- g) the percentage of the corals collected is a very small number when compared to the total number of the corals eligible for collection and a much smaller percentage of all corals on the reef flat (see percentages, Tables 5 and 6).

In Fiji, the WSI collecting area is located offshore from Lautoka, NE Viti Levu and has a combined reef area of 108.2 km<sup>2</sup> (calculated to only 3m depth). AFF's collecting area is located offshore from Deuba in the Beqa lagoon and comprises an area of 64.2 km<sup>2</sup> (Figure 2). For WSI, the uncollected reef area to the east extends across northern Viti Levu for 100 km additionally including all of Vanua Levu and eastern Fiji. For AFF, all areas to the east including the Lomai Viti and Lau island groups are uncollected as is 100 km of Coral Coast fringing reef to the west.

In the assessments of the collecting areas, surveys to ascertain the presence of corals subject to collection relative to other colonies were carried out during the development of Aquarium Fisheries Area Management Plans (AFMP) (Lovell 2002b, 2003b). Tables 5 and 6 indicate the level of extraction.

This assessment has only taken into account the reef flat environment to a depth of 3m as this is the area where most collection is taking place. The size of the habitat can be measured from aerial photographs enabling extrapolation of abundance data available from the sampled transects. It is an area where the natural disturbance of wave action and tidal exposure limits the growth of large colonies and provides an abundance of the desired size categories.

### 6.2 **Resource survey summary**

Tables 5 and 6 are assessments for the collection areas of AFF and WSI of the number of corals found on the reef flat and peripheral areas to 3m depth.

Surveys determined the number of corals eligible for collection based on colony characteristics desirable in the market of small size, bright colour and suitable shape and those unsuitable due to undesirable characteristics. Approximately 20% of the collecting area was sampled (belt transect surveys) with the number of colonies per unit area extrapolated to the entire area of collection. The complete results are detailed in the environmental impact assessment, aquarium fisheries management plans and monitoring assessments (Lovell, 2002b, 2003a, 2003b, 2004b). The results are calculated as a percentage of the corals eligible for collection and of all corals present.

Table 5 shows that in 2006, slightly more than 20% of all corals in the collecting area used by AFF were eligible (due to size and appearance) for collection. Those exported (48,638 pieces

in 2006) represented 0.59% of corals suitable for collection and 0.12% (1.2 corals in 1,000) of all corals present in the collecting area.

The collection figures for the sites utilized by WSI and AFF in Fiji are consistent with the WWF criteria to promote sustainability, namely; small sized corals are collected (3-12cm), the areas of reef are large ( $108.2 \text{ km}^2$  and  $64.2 \text{ km}^2$  respectively), the presence of large reefs both too deep for collection and proximal to the collection areas which are not utilized and additionally, species which are fast growing both *in situ* and in artificial environments, predominate.

**Table 5.** Estimates of coral numbers and percentages of corals collected for the entire collecting area for Aquarium Fish Fiji (AFF) in 2006.

Coral Reef Area and Exports	Collectible corals	Non- collectible corals	Total coral number
Estimated coral numbers	8,272,800	33,003,000	41,275,800
Percentage of corals in each category	20.0	80.0	
Number of corals exported in 2006	48,683	-	-
Coral exports as a percentage of collectible, and total coral	0.59%		0.12%

The amount of coral exported from the WSI collecting area in 2006 is 0.22% of the total corals estimated to be suitable for collection in 2004 (Table 6). The exported quantity is  $\sim$ 0.01 % of the total coral (or 1.2 colonies exported per 10,000 coral colonies) from the collecting area.

**Table 6.** Estimates of coral numbers and percentages of corals collected for the entire collecting area for Walt Smith International (WSI).

Coral Reef Area and Exports	Collectible corals	Non- collectible coral	Total coral number
Estimated coral numbers	31,465,004	554,599,066	586,064,070
Percentage of corals in each category	5.3	94.6	
Number of corals exported in 2006	68,940		
Coral exports as a percentage of collectible and total coral	0.22%		0.01%

The relative abundance and diversity of corals vary in time depending on the environmental history of the location. Factors which may affect abundance include physical disturbance, biological predation and competition. Depending on the time of assessment, the information obtained represents a snapshot within the dynamic process of coral reproduction, growth, and mortality. This process operates in an environment subject to destructive storms, floods, coral bleaching (Cumming *et al.* 2002; Lovell 2001b, 2005) and predation by the crown of thorns starfish (*Acanthaster planci*) which cause localised to mass mortality (Zann *et al.* 1990). Despite these impacts, the complex physiographic nature of the archipelago engenders Fiji's coral fauna with a biological resilience.

The relative abundance of the genera and species within the WSI monitoring programme is presented in Table 7. These can be compared with abundance information from American Samoa in Table 8. These Tables provide a glimpse of relative abundance of different genera and species in Fiji and American Samoa, however further studies and replication through monitoring would provide a better understanding of dynamics of such abundance.

### 6.3 Fiji's voluntary export quotas

Recently the Fiji Islands CITES Scientific Authority (referred to as the Scientific Council) recommended a reduction of export quotas until a formal non-detriment finding for the collection of live coral and live rock can be carried out. Acting on their advice, the Management Authority of Fiji, on 19 December 2007, reduced the quotas by 25% for all corals in trade for the first six months of the year while resource surveys are being conducted. The revised export quotas, published by the CITES Secretariat in August 2008, are listed in Table 9.

**Table 7.** Relative coral abundance and relative percentage composition of corals in the WSI collecting area; corals ranked in order of abundance (based on sample area: 84 transects of  $20 \text{ m x } 2.5 \text{ m} = 4200 \text{ m}^2$ ) (Lovell 2003b, 2004b).

transectcompositeAcropora spp.3.413.7%(branching)1Tubipora sp.2.510.0%Pocillopora spp.2.18.7%Echinopora spp.1.45.7%Lobophyllia spp.1.35.1%Fungia spp.1.24.9%	
Tubipora sp.         2.5         10.0%           Pocillopora spp.         2.1         8.7%           Echinopora spp.         1.4         5.7%           Lobophyllia spp.         1.3         5.1%           Fungia spp.         1.2         4.9%	
Pocillopora spp.         2.1         8.7%           Echinopora spp.         1.4         5.7%           Lobophyllia spp.         1.3         5.1%           Fungia spp.         1.2         4.9%	
Echinopora spp.         1.4         5.7%           Lobophyllia spp.         1.3         5.1%           Fungia spp.         1.2         4.9%	
Lobophyllia spp.         1.3         5.1%           Fungia spp.         1.2         4.9%	
<i>Fungia</i> spp. 1.2 4.9%	
Merulina scabricula1.04.1%	
Hydnophora rigida 1.0 4.0%	
Platygyra spp.         0.9         4.0%	
Merulina ampliata.0.93.8%	
Acropora spp. (tabulate) 0.9 3.7%	
Galaxea astreata0.93.6%	
Mycedium elephantotus0.93.5%	
<i>Favia</i> spp. 0.7 2.8%	
Favites spp.         0.6         2.4%	
Seriatopora caliendrum 0.6 2.4%	
Turbinaria spp.         0.5         2.1%	
Tubastrea spp.         0.5         2.0%	
Scolymia vitiensis 0.4 1.7%	
Hydnophora exesa 0.4 1.6%	
<i>Symphyllia</i> spp. 0.4 1.6%	
<i>Oxypora</i> spp. 0.3 1.4%	
<i>Montipora</i> spp. 0.3 1.1%	
<i>Platygyra</i> spp. 0.3 1.1%	
<i>Cyphastrea</i> spp. 0.2 0.9%	
Seriatopora hystrix 0.2 0.8%	
Stylophora spp. 0.2 0.8%	
Plerogyra simplex0.10.5%	
Pavona spp. 0.1 0.4%	
Caulastrea spp. 0.1 0.3%	
Euphyllia glabrescens0.10.3%	
Plerogyra sinuosa 0.1 0.3%	
Pachyseris speciosa 0.1 0.2%	
<i>Montastrea</i> spp. 0.03 0.1%	
Pachyseris rugosa 0.02 0.1%	
Polyphyllia talpina0.020.1%	

**Table 8.** Transect assessment of coral abundance in American Samoa; corals ranked in order of abundance (29 transects of  $20m \ge 0.5m = 290m^2$ ). Adapted from Munday (1996).

G	Total no.	% of total	% of coral
Genus	of colonies	colonies	cover
Montipora	5337	29.65	36.95
Porites	4459	24.77	21.69
Pavona	1686	9.36	7.25
Pocillopora	1072	5.95	5.08
Psammocora	940	5.22	1.61
Acropora	757	4.21	6.96
Galaxea	575	3.19	1.50
Goniastrea	511	2.84	2.66
Leptastrea	473	2.63	0.48
Favia	368	2.04	2.38
Montastrea	337	1.87	0.47
Astreopora	333	1.85	4.14
Leptoria	197	1.09	0.67
Cyphastrea	174	0.97	0.28
Favites	126	0.70	0.78
Fungia	115	0.64	0.25
Oxypora	640	0.36	0.46
Echinopora	63	0.35	1.40
Platygyra	62	0.34	0.67
Alveopora	57	0.32	0.04
Leptoseris	54	0.30	0.16
Coscinaraea	40	0.22	0.38
Stylocoeniella	30	0.17	0.09
Turbinaria	29	0.16	0.48
Turbinaria	26	0.14	0.08
Acanthastrea	24	0.13	0.07
Hydnophora	21	0.12	0.33
Merulina	14	0.08	1.12
Diploastrea	10	0.06	0.16
Lobophyllia	9	0.05	0.04
Coeloseris	8	0.04	0.02
Stylophora	7	0.04	0.06
Mycedium	6	0.03	0.03
Scapophyllia	4	0.02	0.91
Goniopora	3	0.02	0.01
Sandalolitha	3	0.02	0.01
Oulophyllia	2	0.01	0.04
Echinophyllia	2	0.01	0.09
Symphyllia	1	0.005	0.02
Gardineroseris	1	0.005	0.001
Caulastrea	1	0.005	0.005
Halomitra	1	0.005	0.005
Pachyseris	1	0.005	0.005

**Table 9.** Fiji's voluntary export quotas for 2007 and 2008 for hard corals (recorded in number of individuals) and live rock (recorded in kg).

HARD CORAL	2007 QUOTA	25% Reduction	2008* QUOTA	No of species included in the quota
Acropora spp.	96,360	24,090	72,270	76
Acrhelia horrescens**	28	7	21	1
Caulastrea spp.	4,300	1,075	3,225	4
Distichopora spp.***	146	37	109	3
Echinopora spp.	60	15	45	5
Euphyllia ancora	400	100	300	1
Euphyllia cristata	156	39	117	1
Euphyllia glabrescens	6,000	1,500	4,500	1
Euphyllia yaeyamaensis	400	100	300	1
Favia spp.	2,126	532	1,594	9
Favites spp.	5,076	1,269	3,807	8
<i>Fungia</i> spp.	12,466	3,117	9,349	14
Galaxea astreata	606	152	454	1
Galaxea fascicularis	1,600	400	1,200	1
Goniastrea spp.	3,602	901	2,701	5
Goniopora spp.	2,860	715	2,145	9
Hydnophora exesa	662	166	496	1
Hydnophora rigida	6,000	1,500	4,500	1
Lobophyllia spp.	9,778	2,445	7,333	5
Merulina ampliata	3,000	750	2,250	1
Merulina scabricula	634	159	475	1
<i>Millepora</i> spp.***	6,434	1,609	4,825	6
Montastrea spp.	30	8	22	4
Montipora spp.	4,304	1,076	3,228	25
Mycedium elephantotus	1,448	362	1,086	1
Pachyseris rugosa	340	85	255	1
Pachyseris speciosa	346	87	259	1
Pavona spp.	6,938	1,735	5,203	11
Pectinia spp.	1,210	303	907	3
<i>Platygyra</i> spp.	5,516	1,379	4,137	5
Plerogyra simplex	2,400	600	1,800	1
Plerogyra sinuosa	410	103	307	1
Pocillopora spp.	66,404	16,601	49,803	6
Polyphyllia talpina	978	245	733	1
Porites spp.	5,234	1,309	3,925	12
Seriatopora hystrix	5,644	1,411	4,233	1
Stylaster spp.***	960	240	720	1
Stylophora spp.	12,562	3,141	9,421	2
Trachyphyllia geoffroyi	6,334	1,584	4,750	1
Tubastraea spp.	1,542	386	1,156	3
Tubipora musica***	10,872	2,718	8,154	1
<i>Turbinaria</i> spp.	14,796	3,699	11,097	6
Total species				242
LIVE ROCK	1,432,180kg.	358,045 kg.	1,074,135 kg.	

\* Revised export quotas were published on the CITES Secretariat website on 28 August 2008: <u>http://www.cites.org/common/quotas/2008/ExportQuotas2008.pdf</u> [accessed 4th September 2008] \*\* Synonym of Galaxea horrescens referred to in Table 1 following Veron (2000).

### \*\*\* Non-scleractinian hard corals

Corals which have been allocated zero quotas and are not allowed for export, are as follows: *Blastomussa wellsi; Catalaphyllia jardinei; Cynarina lacrymalis; Dendrophyllia spp.; Heliopora coerulea; Hydnophora microconos; Leptastrea spp.; Leptoria phrygia; Leptoseris spp.; Oxypora spp.; Scolymia vitiensis; Seriatopora caliendrum; Symphyllia spp.* The CITES website had not (at 4<sup>th</sup> September 2008) been updated with any of these zero quotas for 2008.

# 7. Conclusion

A total of 354 coral species are recorded as occurring within Fiji. The majority are Scleractinian hard corals, which consist of 342 species within 72 genera. Of these, ahermatypic Scleractinia make up six species within four genera; the remainder are hermatypic (i.e. reef building corals which contain and depend on zooxanthellae for nutrients). A further 12 non-Scleratinian species within five genera occur. A total of 212 species are represented by voucher specimens. Fiji is the type locality for 47 species which is largely the result of collections made by Dana (1846) during the United States Exploring Expedition 1838-1842.

The number of species of Scleractinian corals found in Fiji approaches that predicted by Veron (2000) of 345 species. However, as well as correct predictions, there remain predictions as yet unsupported by field records, and records of species occurrence which were not predicted by Veron (2000). Of those species predicted to occur in Fiji but which are without field records, 27 are also not found in adjacent countries in the central southwest Pacific and so are unlikely to occur in Fiji (Table 4).

Fiji is the major exporter of hard corals within the region and has established voluntary export quotas which have been submitted to the CITES Secretariat for publication to the Parties. These export quotas comprise both genera categories as well as individual species. Monospecific genera are always designated at the species level.

For the coral in trade within Fiji, 242 species in 34 genera are allowed for export under the voluntary CITES export quota system, including eleven non-Scleratinian corals in four genera. A total of 112 species are therefore not included in the quota which precludes their export. Relative abundance of hard corals varies with region in Fiji. Fenner (2006) has compared the Coral Coast with the Mamanuca area, noting commonness and rarity of coral species.

Species records for Vanuatu, directly west of Fiji totalled 279 species. The numbers of species listed as occurring in Tonga, Samoa and American Samoa (all east of Fiji) were 189, 149 and 218 respectively. Declining species diversity to the east could be predicted based on known oceanic biodiversity gradients, however it must also be noted that diversity varies with survey effort. Reef area is also likely to be a factor; a species-area relationship was apparent for the islands considered.

## 8. Acknowledgements

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