REVIEW OF SIGNIFICANT TRADE

ANALYSIS OF TRADE TRENDS WITH NOTES ON THE CONSERVATION STATUS OF SELECTED SPECIES

ANNEX D: FISH AND INVERTEBRATES

Prepared for the

CITES Animals Committee, CITES Secretariat

by the

United Nations Environment Programme
World Conservation Monitoring Centre

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1 ***Tridacna crocea***

FAMILY TRIDACNIDAE

COMMON NAME(S) Boring Clam; Crocea Clam; Crocus Clam; Saffron-coloured Clam (English)

GLOBAL CONSERVATION STATUS LR/lc (Mollusc Specialist Group, 1996)

DISTRIBUTION AND LOCAL CONSERVATION STATUS
Occurs from southern Japan, south to Australia and east to Palau, and is still reasonably abundant, although it may be extinct in Guam and Northern Marianas (Munro 1989) (Wells 1997).

Australia: Abundant (Braley, 1988a and 1993; Wells, 1997).
Fiji: (int) Occurrence reported (Raymakers *et al.*, 2003).
Guam: Presumed extinct through overfishing (Munro, 1988; Wells, 1997).
?India: *Andaman and Nicobar Island*s: Occurrence reported (Wells, 1997).
Indonesia: Recorded in many areas (Brown and Muskanofola, 1985; Munro, 1989; Pasaribu, 1988; Tisdell, 1993; Usher, 1984; Wells, 1997). Wild populations have been affected by over-exploitation (Raymakers *et al.*, 2003).
Japan: Overfished in Okinawan waters (Munro, 1986; Shang, 1990; Wells, 1997).
Malaysia: *Saba*h: Confirmed population in west Malaysian waters, around island groups off the east coast (Malaysia CITES MA, *in litt.* to CITES Secretariat, 1995; Wells, 1997).
New Caledonia: Occurrence reported (Raymakers *et al.*, 2003).
Northern Mariana Islands: Extinct? (Munro, 1989; Wells, 1997).
Palau: Occurs (Bryan and McConnell, 1976). The only viable commercial giant clam hatchery of the South Pacific is the one that operates in Palau. It produces *T. croce*a, amongst other species, as seeds for other countries' enhancement programmes (Shang *et a*l., 1992).
Papua New Guinea: A Stock Assessment and Biogeographical Survey conducted in 2001 recorded very low densities for *T. maxima* were at 14.85/ha., particularly when compared with the results recorded from 1996. These low stocks are considered to reflect previous unsustainable practices from commercial use, poaching and subsistence harvesting (Kinch 2002). Used for subsistence purposes (Munro, 1989).

Milne Bay Province in Papua New Guinea is one of the few areas in the world where wild stocks of giant clams *Tridacna* spp. remain. Given the importance of giant clam meat in the subsistence diets of local coastal and island communities and the potential commercial value of both the meat and shells, better management of these stocks is necessary. The province has a long history of poaching and commercial use of giant clams, peaking in the 1970s with illegal incursions by Taiwanese fishing vessels. In 2000, the export of wild giant clam products from Papua New Guinea was banned and continues to be prohibited. Fishing for subsistence purposes by villagers is allowed (Kinch, 2002).

Philippines: Still fairly abundant in some areas, e.g. Polillo and Palawan; populations may be fairly stable (Alcala, 1986; Calumpong and Cadiz, 1993; Gomez and Alcala, 1988; Juinio *et al*., 1986; Mingoa-Licuanan, 1993; Munro, 1989; Wells, 1997).
Singapore: Occurrence reported (Munro, 1989).
Solomon Islands: Widespread; probably most abundant species (Govan *et al*., 1988; Munro, 1989; Oengpepa, 1993).
Taiwan: Unconfirmed reports of occurrence; little suitable habitat (Munro, 1989). May occur (Wells, 1997).
Thailand: Status unknown (Munro, 1989). Occurs (Wells, 1997).
Tuvalu: Presence unconfirmed (Braley, 1988b).
United States (Hawaii): Introduced. Now extinct.
Vanuatu: Patchy or rare, probably naturally (Munro, 1989; Zann and Ayling, 1990). Priced subsistence foods for the local Ni-Vanuatu population (Zann and Ayling, 1988).
Vietnam: Occurrence reported (Selin and Latyupov 1990). Probably occurs (Wells, 1997).

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INTERNATIONAL TRADE

Gross Exports of *Tridacna crocea*

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Australia	live	0	80	8	158	34	140	0	0	0	0	0
Australia	shells	0	500	500	0	0	0	0	0	0	0	0
ex. Trust Territory	live	0	0	59	0	0	0	0	0	0	0	0
Fiji	live	0	0	50	31	4	1351	5113	2507	866	99	303
Fiji	live (kg)	0	0	0	0	0	0	39	0	0	0	0
Fiji	shells	0	0	0	0	0	0	40	0	0	0	0
Indonesia	live	0	0	82	0	0	8	0	0	2	50	0
Malaysia	live	0	0	0	0	0	0	5	0	0	0	0
Malaysia	shells	0	0	0	0	24	0	0	0	1	0	0
New Caledonia	shells	0	0	0	0	0	0	120	66	300	345	257
Papua New Guinea	shells	0	0	0	0	0	0	1	0	0	0	0

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Palau	live	100	0	18	0	40	0	58	0	0	0	0
Palau	shells	0	0	0	0	0	0	0	1	0	0	0
Philippines	live	250	41341	75460	82539	38297	0	392	0	0	0	0
Philippines	live (kg)	0	760	0	0	0	0	0	0	0	0	0
Philippines	meat	0	55511	0	0	0	0	0	0	0	0	0
Philippines	meat (kg	29475	65111	60331	59736.8	28100	0	0	0	0	0	0
Philippines	shells	59319	43202.5	22275	24300	408	0	0	41	0	0	0
Philippines	shells (bags)	0	0	6220	0	0	0	0	0	0	0	0
Pitcairn	live	0	0	60	0	0	0	0	0	0	0	0
Singapore	live	0	0	0	42	0	0	0	0	0	0	0
Solomon Islands	live	0	200	2184	3093	6685	9524	7847	4025	1273	5400	3864
Solomon Islands	shells	0	0	0	28	0	0	0	0	0	0	0
Thailand	live	0	13	0	0	0	0	0	0	0	0	0
Tonga	live	0	1204	0	282	57	0	0	0	65	0	12
Unknown	live	0	0	0	0	0	25	90	0	0	0	0
Vanuatu	live	0	0	0	0	0	250	15310	11150	17386	8290	232
Vanuatu	live (kg)	0	0	0	0	0	0	179	0	266	0	100
Vanuatu	shells	0	0	0	0	0	150	202	0	462	0	0
Viet Nam	live	0	0	0	0	0	500	46390	36500	40000	62203	48342
Viet Nam	shells (kg)	0	0	0	0	0	0	0	0	4	0	0

COMMENT
Recommend inclusion for review because of the increased exports from Viet Nam in recent years, where the status of the species is unkown.

2 *Tridacna derasa*

FAMILY TRIDACNIDAE

COMMON NAME(S) Derasa Clam; Southern Giant Clam (English)

GLOBAL CONSERVATION STATUS VU A2cd (Wells, 1996)

DISTRIBUTION AND LOCAL CONSERVATION STATUS
Commonly found in Australia, the Philippines, and Indonesia. A popular food item, these clams have been hunted extensively throughout their natural habitats. In protected areas (the Great Barrier Reef in Australia for example) they are sometimes found in densities of up to 30 clams a hectare (2.47 acres). The *T. derasa*'s you purchase today are the result of aquaculture projects, not wild collecting. This is because *T. derasa's*, along with *T. gigas*, were one of the first clams to be commercially bred (Lukan 1999).

American Samoa: (int) Occurrence noted (Wells, 1997).
Australia: *Queensland* Abundant (Wells, 1997).
Cocos (Keeling) Islands:
Cook Islands: (int) Introduced from MMDC in 1986 to Aitutaki (Wells, 1997).
Fiji: `Overfished especially near population centres; most abundant in windward, eastern islands.' (Wells, 1997).
Guam: (ex, reint) Extinct through overfishing (Wells, 1997).
Indonesia: *Irian Jaya* Wild populations have been affected by over-exploitation (Raymakers *et al.*, 2003). All coastal waters except northern Sumatra; marked decline; possibly eliminated from western regions (Eastern Sumatra and Java) (Wells, 1997).
Marshall Islands: (int). Introduced 1985, 1989, 1990 from MMDC to various locations (Wells, 1997).
Micronesia: (Federated States of) (ex, int),
New Caledonia: Present (Wells, 1997).
Northern Mariana Islands: (ex, reint) Extinct (Wells, 1997).
Palau: Occurrence reported (Wells, 1997). Main species of Tridacna traded from Palau. The only viable commercial giant clam hatchery of the South Pacific is the one that operates in Palau (Raymakers *et al.*, 2003). It produces *T.*

derasa, amongst other species, as seeds for other countries' enhancement programmes (e.g. Fiji, FSM, Guam, Marshall Islands and Solomon Islands), as ornamental invertebrates for the aquarium trade and as food for restaurants (Anon. 1998a), particularly as sashimi in Japan (Shang *et a*l., 1992).

Papua New Guinea: See comments on *Tridacna* from Kinch (2002) under *T.crocea*.

Used for subsistence purposes (Munro, 1989). Not found near the mainland (Wells, 1997).

Philippines: Stock assessments of wild tridacnid populations in the Philippines date back to the 1984-1986 surveys done by the University of the Philippines Marine Science Institute (UPMSI) and the Silliman University Marine Laboratory (SUML). *T. gigas*, *T. derasa* and *Hippopus porcellanus* have been reported as overfished (Juinio et al., 1989)……..remnant *T. derasa* populations may still exist in the east, in the peninsular province of Eastern Samar, and in the west, in the Island of Maricaban (province of Batangas) (Mingoa-Licuanan and Gomez, 2002).

Samoa: (int)

Solomon Islands: "Restricted; only observed in Marau Sound, Nggela, Russel Isl., and north Marovo Lagoon but may occur elsewhere" (Wells, 1997).

Tonga: Overfished especially near population centres (Wells, 1997). Populations are affected by over-exploitation, especially near population centres (Anon., 1995). Harvested for domestic food use, shell used for decorative purposes and also exported live for the aquarium trade. There are limitations regarding the types of fishing gear used. Scuba and hookah are prohibited for the harvest of this species and there is also a minimum size shell length of 260mm for *T. derasa* (Raymakers *et al.*, 2003).

? Tuvalu: (int?) Presence unconfirmed. All [giant clam] species heavily exploited near villages for subsistence purposes, but some healthy stocks (Wells, 1997).

? United States: (int?) : ?*Hawaiian Is* (int?)

Vanuatu: (ex) Either very rare or absent; no recent reports (Wells, 1997).

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INTERNATIONAL TRADE

Gross Exports of *Tridacna derasa*

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
ex. Trust Territory	live	0	0	376	234	0	213	0	0	0	0	0
ex. Trust Territory	shells	0	0	0	10	0	0	0	0	0	0	0
Fiji	live	0	499	342	96	379	1988	1494	2121	1217	942	194
Fiji	live (kg)	0	0	0	0	0	174	3	0	0	35	0
Fiji	shells	0	0	0	0	0	27	20	0	0	0	0
Fiji	shells (kg)	0	0	0	0	0	12	0	0	0	0	0
Indonesia	live	0	0	0	0	0	30	0	0	3	803	0
Kiribati	shells	0	1	0	0	0	0	0	0	0	0	0
Marshall Islands	live	0	0	0	0	0	0	0	0	0	124	32
Micronesia	live	0	50	0	0	0	0	0	0	0	0	0
New Caledonia	shells	0	0	0	0	0	0	103	93	211	310	192
Palau	live	137	0	817	54	188	0	112	157	884	1902	1218

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Palau	meat	0	0	0	0	8	0	0	0	0	0	0
Palau	shells	0	0	0	0	138	0	9	1	2	2	0
Philippines	live	0	0	115	0	158	0	0	0	0	0	0
Philippines	shells	0	0	6	0	0	0	0	0	0	0	0
Pitcairn	live	0	0	114	0	0	0	0	0	0	0	0
Samoa	live	0	0	0	0	116	1108	0	100	2004	159	0
Solomon Islands	live	0	1175	1778	8283	11217	7978	8320	6941	5543	1815	45
Solomon Islands	shells	0	0	0	20	0	118	0	0	0	0	0
Tonga	live	11	2363	0	1119	4232	721	2705	1431	1407	1523	867
Tonga	live (kg)	0	0	0	0	0	43	0	0	75	54	0
Tonga	shells (kg)	0	0	0	0	0	0	0	0	0	11000	0
United States	live	254	100	0	0	0	0	0	0	0	0	0
United States	shells	200	0	0	0	0	0	0	0	0	0	0
Unknown	live	0	0	0	0	0	10	344	0	0	0	0
Unknown	shells	0	0	0	0	0	1	4	0	0	0	0
Vanuatu	live	0	0	0	0	0	0	0	150	905	0	0
Vanuatu	shells	0	0	0	0	0	4	0	0	25	0	0

COMMENT
Recommend inclusion for review to establish whether those animals coming from Palau and reported as wild-collected by the United States are in fact captive-bred from commercial clam hatchery.

3 ***Tridacna gigas***

FAMILY TRIDACNIDAE

COMMON NAME(S) Giant Clam; Gigas Clam (English);
Bénitier géant (French)

GLOBAL CONSERVATION STATUS VU A2cd (Wells, 1996)

DISTRIBUTION AND LOCAL CONSERVATION STATUS
American Samoa: (int)
Australia: *Queensland* Abundant on parts of the Great Barrier Reef; natural breeding populations only north of 18°S; limited by cold temperatures (Wells, 1997).
Cook Islands: (int) Introduced into Aitutaki from JCU (Ministry of Marine Resources, Government of the Cook Islands, date?,)
Fiji: (ex, reint) There are doubts about *T. gigas* actually being found in Fiji. According to The Reef Aquarium Volume One, years of observations throughout Fiji have never turned up any living *T. gigas* or fossil shells. *T. gigas* has, however, been "re-introduced" there (Lukan, 2000). Extinct andprobably never common (or may not have occurred: last known specimens collected in 1970s and could have been confused with *T.derasa*) (Wells, 1997).
Guam: (ex) Presumed extinct through overfishing (Wells, 1997).
Indonesia: Wild populations have been affected by over-exploitation (Raymakers *et al.,* 2003). Smuggling of *T. gigas* adductor muscles and live specimens for the aquarium trade in Singapore as first destination have been reported (Aspari Rachman, C.V. Dinar (aquarium exporter), Bali, Indonesia, in litt. (answer to questionnaire) to TRAFFIC Europe, December 2002). All coastal waters; marked decline; possibly eliminated from western regions (Eastern Sumatra and Java) (Wells, 1997).
Japan: Extinct (Wells, 1997).
Kiribati: Gilbert Is Uncommon; very limited at Tarawa but moderate to good elsewhere in Gilbert Islands; absent in Line and Phoenix Islands (Wells, 1997).
Malaysia: Sabah Off coast of Sabah (Wells, 1997).
Marshall Islands: Collected for subsistence purposes as food (Raymakers et al., 2003). Severely depleted on some atolls but still present (Wells, 1997).
Micronesia, Federated States of: (ex, reint) Has become locally extinct due to overexploitation (Raymakers *et al.,* 2003). Extinct in known areas, although it could be present on remote atolls; once flourished in Yap but now only an occasional living specimen is found, although shells are often dredgd up; relict populations on Lamotrek Atoll and West Fayu; recent fossils abundant in Kosrae, Pohnpei, Chuuk, Yap; extinct in Kosrae due to overfishing (Wells, 1997)
Myanmar: Confined to southern waters (Wells, 1997).
New Caledonia: (ex) Extinct, only present as fossils (Wells, 1997).

Northern Mariana Islands: (ex, reint) Extinct (Wells, 1997).
Palau: Locally rare (Wells, 1997). The only viable commercial giant clam hatchery of the South Pacific operates in Palau. It produces *T. gigas*, amongst other species, as seeds for other countries' enhancement programmes (e.g. Fiji, FSM, Guam, Marshall Islands and Solomon Islands), as ornamental invertebrates for the aquarium trade and as food for restaurants, particularly as sashimi in Japan (Shang *et a*l., 1992).
Papua New Guinea: Locally rare, especially on nearshore reefs or near main towns (Wells, 1997). Used for subsistence purposes (Munro, 1989). See comments on *Tridacna* from Kinch (2002) listed for *T.crocea*.
Philippines: Stock assessments of wild tridacnid populations in the Philippines date back to the 1984-1986 surveys done by the University of the Philippines Marine Science Institute (UPMSI) and the Silliman University Marine Laboratory (SUML). *T. gigas*, *T. derasa* and *Hippopus porcellanus* have been reported as overfished (Juinio et al., 1989). What remains of the *T. gigas* populations may still be found in the south, such as in the province of Palawan (Mingoa-licuanan, S. S. and Gomez, E. D. 2002). Extinct in most areas, except extreme south; no longer found in Central Visayas; last stronghold in the Sulu Archipelago; considered endangered (Wells, 1997).
Solomon Islands: Widespread but in low numbers and overfished in areas of high population density (Wells, 1997).
Taiwan: (ex?) Extinct, probably through overexploitation(Wells, 1997).
Thailand: Occurs (Wells, 1997).
Tonga: (ex, int), May once have been present but no recent records (Wells, 1997).
?Tuvalu: Very rare, possibly extinct (or may never have occurred) (Wells, 1997).
United States: (int) *Hawaiian Is.* (int)
Vanuatu: (**ex**) Either very rare or absent (Wells, 1997).
Viet Nam: Occurrence reported (Wells, 2003)
Western Samoa: (ex, int) Introduced from JCU 1990 and 1991 but lost in cyclones (Wells, 1997).

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INTERNATIONAL TRADE

Gross Exports of *Tridacna gigas*

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Australia	live	0	10	0	0	0	5	0	0	0	0	0
Australia	shells	0	0	0	0	0	0	3	0	4	1	0
ex. Trust Territory	live	0	0	233	52	0	2	35	0	0	0	0
ex. Trust Territory	shells	0	0	0	1	0	0	0	0	0	0	0
Fiji	live	0	0	0	3	0	196	13	113	46	0	53
Indonesia	live	1	0	0	0	0	0	0	0	0	5	0
Indonesia	shells	0	0	0	0	0	0	0	0	21	0	0
Kiribati	live	0	2	0	0	0	0	0	0	0	0	0
Kiribati	shells	0	0	0	2	0	0	12	0	4	2	0
Marshall Islands	live	1	2	61	288	0	0	16	7	0	0	0
Morocco	live	0	0	6	0	0	0	0	0	0	0	0
New Caledonia	shells	6	0	0	0	0	0	0	0	0	6	11
New Zealand	shells	0	0	0	0	0	0	2	0	0	0	0

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Papua New Guinea	meat (kg)	0	0	0	0	2000	0	0	0	0	0	0
Papua New Guinea	shells	25	8	5	9	3	1	0	0	0	2	0
Palau	live	30	0	0	0	0	0	0	0	39	0	0
Philippines	live	0	0	30	0	3	0	0	320	390	0	0
Philippines	live (kg)	1036.5	0	0	0	0	0	0	0	0	0	0
Philippines	shells	736	1	6	1	0	2	0	35	0	0	0
Philippines	shells (kg)	3600.5	0	0	0	0	0	0	0	0	0	0
Solomon Is.	bodies	0	0	0	14	0	0	0	0	0	0	0
Solomon Is.	live	0	1492	795	2106	1660	717	258	354	11	4	12
Solomon Is.	shells	2	0	0	0	0	0	0	0	0	0	0
South Africa	shells	0	0	0	0	0	1	1	0	0	0	0
Sri Lanka	live	2	0	0	0	0	0	0	0	0	0	0
Tonga	shells	0	0	0	0	0	0	0	0	0	10	0
United States	live	1	0	0	0	0	0	0	0	0	0	0
Unknown	live	0	0	0	0	0	0	8	0	0	0	0
Vanuatu	live	0	0	0	0	0	0	0	100	0	0	0
Vanuatu	shells	0	3	6	0	0	2	10	11	0	0	2
Viet Nam	live	0	0	0	2	0	0	0	0	0	0	100
Viet Nam	shells (kg)	0	0	0	0	0	0	0	0	29000	0	0

COMMENT
Recommend exclusion from review as trade has decreased in recent years. The only recent trade that may be cause for concern is 2900kg of shells exported by Viet Nam in 2000.

4 ***Tridacna maxima***

FAMILY TRIDACNIDAE

COMMON NAME(S) Maxima Clam; Small Giant Clam (English)

GLOBAL CONSERVATION STATUS LR/cd (Wells, 1996)

DISTRIBUTION AND LOCAL CONSERVATION STATUS
T. maxima has one of the largest range for all giant clams extending from the Red Sea and East Africancoast across the Indo-Pacific to the Pitcairn Islands. It has a current range of 45 countries. It is reasonably abundant but its status in the Indian Ocean is poorly known (Wells 1997).

American Samoa: Over-exploited and unlikely to recover naturally, except abundant protected stock at Rose Atoll (Killelea-Almonte, 1992; Munro, 1989).
Australia: Abundant (Braley, 1988a and 1993).
?British Indian Ocean Territory: Occurrence reported (Wells, 1997).
China: Occurrence reported (Wells, 1997).
Comoros: Occurrence queried (Wells, 1997).
Cook Islands: Abundant in lagoons of larger atoll islands; less common on smaller atolls (e.g. Pukapuka and Rakahanga) and depleted on the more populated high islands in Southern Group, where environmental constraints (small reef area) and fishing pressure may limit its abundance; heavily exploited in 1970s for local use. Depletion on the most heavily populated outer islands is, in particular, due to demand from Rarotonga. This species has been spawned at the Aitutaki hatchery to develop an alternative source (Cook Islands Ministry of Foreign Affairs, *in litt.* to CITES Secretariat, 1995).
Egypt: Occurs (Red Sea) (Wells, 1997).
Federated States of Micronesia: The most common tridacnid species, but has declined in areas of heavy fishing (Killelea-Almonte, 1992; Smith, 1992a).
Fiji: Overfished, especially near population centres (Lewis *et al*., 1988).
French Polynesia: Heavily exploited near population centres, but locally abundant, especially in atoll lagoons; scattered on outer slopes of fringing reefs of high volcanic islands (Munro, 1989; Richard, 1977).
Guam: Harvested for meat, shell and in live form (Raymakers *et al.*, 2003).
Hong Kong: Extinct (Morton and Morton, 1983).

India: *Andaman and Nicobar Islands*: Lakshadweep (Ramadoss, 1983).
Indonesia: Occurs in all coastal waters (Brown and Muskanofola, 1985; Munro, 1989; Pasaribu, 1988; Tisdell, 1993; Usher, 1984). Wild populations have been affected by over-exploitation (Raymakers *et al.*, 2003).
Japan: Occurrence reported (Wells, 1997).
Kenya: Occurrence reported (Wells, 1997).
Kiribati: Most widely distributed tridacnid species - Gilbert, Phoenix and Line Islands (Munro, 1986; Taniera, 1988).
Madagascar: Occurrence reported (Wells, 1997).
Malaysia: Confirmed population around the islands off the east coast of West Malaysia (Malaysia CITES MA, *in litt.* to CITES Secretariat, 1995).
Maldives: Occurrence reported (Wells, 1997).
Marshall Islands: Most common tridacnid species (Munro, 1989). One of the main species of Tridacna traded. Collected for subsistence purposes as food (Raymakers *et al.*, 2003). Also, the meat *T. maxima* is used to fertilise breadfruit trees .
Mauritius: Occurrence reported (Wells, 1997).
Micronesia, Federated States: Main species of Tridacnidae traded is *T. maxima* (Raymakers *et al.*, 2003). *L*ocal wild populations of all species [of *Tridacna*] present have been affected by over-exploitation (FSM Authority responsible for CITES matters, *in lit*t. to TRAFFIC Oceania, November 2002).
Mozambique: Occurrence reported (Wells, 1997).
Myanmar: Occurrence reported (Wells, 1997).
New Caledonia: One of the main species of Tridacnidae traded by New Caledonia (Raymakers *et al.*, 2003).
Niue: Moderate exploitation; stock density low (89/ha) (Bell, 1993; Dalzell *et al*., 1993).
Northern Mariana Islands: Occurrence reported (Wells, 1997).
Palau: Occurs (Bureau of Natural Resources and Development, Republic of Palau, *in litt.* to CITES Secretariat, 1995). The only viable commercial giant clam hatchery of the South Pacific is the one that operates in Palau. It produces *T. maxima*, amongst other species, as seeds for other countries' enhancement programmes (e.g. Fiji, FSM, Guam, Marshall Islands and Solomon Islands), as ornamental invertebrates for the aquarium trade and as food for restaurants, particularly as sashimi in Japan (Shang *et al*., 1992).
Papua New Guinea: A Stock Assessment and Biogeographical Survey conducted in 2001 recorded very low densities for *T. maxima* were at 1.79/ha, particularly when compared with the results recorded from 1996. These low stocks are considered to reflect previous unsustainable practices from commercial use, poaching and subsistence harvesting (Kinch, 2002). See comments on *Tridacna* from Kinch (2002) listed for *T.crocea*. Used for subsistence purposes (Munro, 1989).
Philippines: Still fairly abundant in some areas, e.g. Cagayan; populations may be fairly stable (Alcala, 1986; Calumpong, in press; Calumpong and Cadiz, 1993; Gomez and Alcala, 1988; Juinio *et al*., 1986; Mingoa-Licuanan, 1993; Munro, 1989).
Pitcairn: Abundant on Oeno; uncommon on Henderson Island; very scarce on Ducie (but sub-fossil shells indicate that it was common in the past (Paulay, 1989).
Réunion: Occurrence reported (Wells, 1997).
Samoa: Heavily fished throughout (Munro, 1989).
Saudi Arabia: Occurrence reported (Wells, 1997).
Seychelles: Occurrence reported (Wells, 1997).
Singapore: Very rare (Wells, 1997).
Solomon Islands: Widespread (Govan *et al*., 1988; Munro, 1989; Oengpepa, 1993).
Somalia? Occurrence queried (Wells, 1997).
South Africa: Occurrence reported (Wells, 1997).
Sri Lanka: Occurrence reported (Wells, 1997).
Taiwan: Occurs around most of the coast (Wells, 1997).
Tanzania: Occurrence reported (Wells, 1997).
Thailand: Occurrence reported (Wells, 1997).
Tokelau: Heavily exploited (Munro, 1989).
Tonga: Most abundant tridacnid species; overfished, especially near population centres (Langi and 'Aloua, 1988; McKoy, 1980; Munro, 1989). Late 1980s surveys by Langi and 'Aloua (1988) found many sites with lower abundance than in 1978-1979 surveys (McKoy, 1980). Populations are affected by over-exploitation, especially near population centres. Primarily harvested for meat and shell (Raymakers *et al.*, 2003) .
Tuvalu: Overfished; stock densities low (3-101/ha) (Braley, 1988b; Munro, 1989).
United States: *Hawai*i: Introduced
Vanuatu: Common; stocks secure (Munro, 1989; Zann and Ayling, 1990). Priced subsistence foods for the local Ni-Vanuatu population (Zann and Ayling, 1988).
Vietnam: Probably occurs (Wells, 1997).
Wallis and Futuna: No surveys have been conducted, but no evidence of decline (Tisdell, 1993).
Western Samoa: Heavily overfished throughout (Wells, 1997).

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INTERNATIONAL TRADE

Gross Exports of *Tridacna maxima*

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Australia	bodies	0	60	0	0	0	0	0	0	0	0	0
Australia	live	0	30	0	0	34	0	0	0	0	0	0
Australia	shells	0	50	91	0	0	0	5	0	0	0	0
Cook Islands	live	0	0	0	0	0	0	0	0	0	0	300
Cook Islands	shells	0	0	0	0	8	0	16	0	6	0	0

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Egypt	live	0	0	520	2362	1729	992	1925	905	0	0	0
Egypt	shells	0	0	0	50	0	0	0	0	0	0	0
ex. Trust Territory	live	0	0	916	597	788	3202	921	0	0	0	0
Fiji	live	0	0	55	0	35	5576	5474	4986	5069	5168	1558
Fiji	live (kg)	0	0	0	0	0	211	165	0	0	117	0
Fiji	shells	0	0	0	0	0	0	215	0	0	775	0
Fiji	shells (kg)	0	0	0	0	0	26	0	0	0	0	0
French Polynesia	shells	0	0	0	0	0	20	0	0	0	3	0
Kenya	live	0	0	0	177	0	0	0	0	0	0	0
Madagascar	live	0	0	0	0	0	0	4283	0	0	60	0
Madagascar	shells	0	0	0	0	4375	0	0	2500	2500	3491	2967
Malaysia	live	0	0	0	0	0	0	5	0	0	0	0
Marshall Is.	live	3268	369	571	450	25	0	770	4915	2172	2810	3809
Marshall Islands	live (kg)	0	162	0	0	0	0	0	0	0	0	0
Marshall Islands	shells	0	0	0	0	0	0	0	0	0	37	0
Micronesia	live	0	0	0	0	0	0	465	2996	5876	3641	3608
Morocco	live	0	0	22	0	0	0	0	0	0	0	0
Mozambique	shells	0	0	0	0	0	6260	27000	16600	0	11000	0
Mozambique	shells (kg)	0	0	0	10000	0	64000	25500	25040	21000	22000	0
New Caledonia	shells	0	0	0	0	0	0	1991	855	1108	1200	1217
Papua New Guinea	shells	0	0	0	0	0	9	0	0	4	0	0
Palau	shells	0	0	0	0	0	0	0	0	1	0	0
Philippines	live	0	0	8	0	400	0	0	0	0	0	0
Philippines	shells	0	0	1	0	0	1	0	875	0	0	0
Samoa	live	0	0	0	0	100	1	0	100	2340	111	0
Seychelles	live	0	0	900	800	0	50	0	0	0	0	0
Seychelles	shells	0	0	0	200	4	4	0	0	0	0	0
Singapore	live	0	0	0	66	0	0	0	0	0	0	0
Singapore	shells	0	0	4	0	0	0	0	0	0	0	0
Solomon Islands	live	0	933	1588	3575	4420	2962	1662	541	453	162	721
Solomon Islands	shells	0	0	0	56	0	18	0	0	0	0	0
Sri Lanka	bodies	0	3	0	0	0	0	0	0	0	0	0
Sri Lanka	live	0	10	0	0	0	0	0	0	0	0	0
Tonga	live	0	3450	0	0	0	2122	9021	5901	4955	4621	5572
Tonga	live (kg)	0	182	0	0	0	62	0	264	276	399	100
Tonga	shells (kg)	0	0	0	0	0	0	0	25	0	500	0
Unknown	live	0	0	0	0	0	2012	529	1325	0	0	0
Vanuatu	live	0	0	0	0	0	20	800	525	6641	2798	5079
Vanuatu	live (kg)	0	0	0	0	0	0	0	0	10	0	0
Vanuatu	shells	0	0	4	0	0	45	22	6	140	0	200
Viet Nam	live	0	0	0	0	0	310	5240	9000	9250	8250	7700
Viet Nam	shells (kg)	0	0	0	0	0	0	0	0	1000	0	0

COMMENT

Recommend inclusion for review as the status of the species for the main exporting countries is unknown, or in the case of Fiji where the species is being over-fished.

5 ***Tridacna rosewateri***

FAMILY TRIDACNIDAE

COMMON NAME(S) Bénitier de Rosewater (French)

GLOBAL CONSERVATION STATUS VU A2cd (Wells, 1996)

DISTRIBUTION AND LOCAL CONSERVATION STATUS

Mauritius: Occurrence noted (Raymakers *et al*, 2003; Wells, 1996 and 1997). So far only described (in 1991) from its type locality on the Saya de Malha Bank (Wells, 1997).

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COMMENT

Recommend exclusion from review as there is no reported trade.

6 ***Tridacna squamosa***

FAMILY TRIDACNIDAE

COMMON NAME(S) Fluted Clam; Fluted Giant Clam; Scaly Clam (English)

GLOBAL CONSERVATION STATUS LR/cd (Wells, 1996)

DISTRIBUTION AND LOCAL CONSERVATION STATUS

T. squamosa has one of the largest ranges for all giant clams extending from the Red Sea and East African coast across the Indo-Pacific to the Pitcairn Islands. It has a current range of 41 countries. It is reasonably abundant (Munro 1989), but its status in the Indian Ocean is poorly known (Wells, 1997).

American Samoa: Production for enhancement of wild stocks is also under way in Western Samoa (Bell *et a*l. 1997a, Bell 1999b both in Adams *et a*l., 2001).
Australia: Abundant (Wells, 1997).
British Indian Ocean Territory: Occurrence reported (Wells, 1997).
Comoros: Occurrence queried (Wells, 1997).
Cook islands: Rarely seen and is generally found outside the reef (Anon, nd). Government hatchery on Aitutaki for 10 years, but not currently commercially sustainable (Matutu, 1999 in Adams *et a*l., 2001). Small-scale enterprises supply *T. squamosa* to the marine aquarium trade (Foyle *et al.* 1997, Hart *et a*l. 1998, both in Adams *et a*l., 2001). Production for enhancement of wild stocks is also under way (Bell *et a*l. 1997a, Bell 1999b both in Adams *et a*l., 2001). Mainly found in depths greater than 10m, proably due to high fishing pressure in shallow waters; rarely found on outer reef slopes of Rarotonga and Aitutaki; heavily exploited in 1970s for local use (Wells, 1997).
Federated States of Micronesia: Occurs in very low numbers (Raymakers *et al.*, 2003). Low to very low numbers in Yap, Chuuk and Pohnpei; no longer found in Kosrae; heavily fished (Wells, 1997).
Fiji: Overfished (Vuki, 2000). Production for enhancement of wild stocks is also under way (Bell *et a*l. 1997a, Bell 1999b both in Adams *et a*l., 2001). Overfished, especially near population centres (Wells, 1997).
Guam [int. – ex]: On Guam, species can only be taken home for consumption from April through July. Size limits: no smaller than 5.9 inches (15 cm) and no larger than 11.8 inches (30 cm). Only 20 pounds (9 kg) of shells can be taken per day during the season. There are some areas on Guam where harvesting is prohibited (Puno, nd). Possibly extinct (Wells, 1997). Harvested primarily as food for local consumption (Raymakers *et al.*, 2003). Presumed extinct through overfishing (Wells, 1997).
India: *Andaman Is*, *Nicobar Is*, *Laccadives.* Occurrence noted (Wells, 1997).
Indonesia: Wild populations have been affected by over-exploitation (Raymakers *et al.*, 2003). All coastal waters (Wells, 1997).
Japan: Possibly extinct. Overfished in Okinawan waters (Wells, 1997).
Kenya: Occurrence noted (Wells, 1997).
Kiribati: *Gilbert Is*, *Phoenix Is.?* Occurrence noted (Wells, 1997).
Madagascar: Occurrence noted (Wells, 1997).

Malaysia: *Sabah* Islands off east ocast of W.Malaysia (Wells, 1997).
Maldives: Occurs, but heavily fished (Wells, 1997).
Marshall Islands: Small-scale enterprises supply *T. squamosa* to the marine aquarium trade (Foyle *et a*l. One of the main species of Tridacna traded. Collected for subsistence purposes as food (Raymakers *et al.,* 2003). 1997, Hart *et a*l. 1998, both in Adams *et al.,* 2001). Widespread but in low to very low numbers (Wells, 1997).
Mauritius: Occurrence noted (Wells, 1997).
Mozambique: Occurrence noted (Wells, 1997).
Myanmar: Occurrence noted (Wells, 1997).
New Caledonia: Occurrence noted (Wells, 1997).
Niue: Moderate exploitation; stock density very low (14/ha); population may no longer be self-sustaining (Wells, 1997).
Northern Marianas: Extinct? (Wells, 1997).
Palau: Not noticeable according to surveys in 1977 (Nichols, 1991). According to Heslinga and Perron (1984 in Nichols, 1991) species is in a clear state of decline in the area; continued wild harvesting could threaten these species. A ban on clam fishing was recommended, at least for this popular fishing area (reef North and South of Aulong Channel in the main barrier reef), where sustained exploitation was high. No commercial exporting of clam meat is permitted violators face fines of between $500 - 2,000 and/or up to 12 months in jail. Despite legislation, quantities of clam meat continue to be exported from Palau, especially to Taiwan. In addition, clam meat is sent to relations overseas, especially Guam, for home consumption. Such exports violate national law. Better enforcement of existing law protecting wild clam stocks would help to deter such illegal activities (Nichols, 1991). Small-scale enterprises supply *T. squamosa* to the marine aquarium trade (Foyle *et a*l. 1997, Hart et al. 1998, both in Adams *et al.,* 2001).
Papua New Guinea: A Stock Assessment and Biogeographical Survey conducted in 2001 recorded very low densities for *T. squamosa* were at 1.79/ha, particularly when compared with the results recorded from 1996. These low stocks are considered to reflect previous unsustainable practices from commercial use, poaching and subsistence harvesting (Kinch 2002). See comments on *Tridacna* from Kinch (2002) listed for *T.crocea*. Used for subsistence purposes (Munro, 1989).
Philippines: 'Occurs; declined in Central Visayas since 1976.' (IUCN, TRAFFIC and WCMC, 1995). Sort after by the shell trade and frequently imported from the Philippines (Lukan 2000).
Pitcairn: Common on Ducie; occasional on Henderson (Wells, 1997).
Saudi Arabia: Occurrence noted (Wells, 1997).
Seychelles: Occurrence noted (Wells, 1997).
Singapore: Occurrence noted (Wells, 1997).
Solomon Islands: 'Widespread.' (IUCN, TRAFFIC and WCMC, 1995). Small-scale enterprises supply *T.squamosa* to the marine aquarium trade (Foyle *et al.* 1997, Hart *et a*l. 1998, both in Adams *et a*l., 2001).
?Somalia: Occurrence queried (Wells, 1997).
South Africa: Occurrence noted (Wells, 1997).
Sri Lanka: Occurrence noted (Wells, 1997).
Tanzania, United Republic of: Occurrence noted (Wells, 1997).
Thailand: Nearly extinct (Thamrongnavasawat 2001)
Tokelau: Heavily exploited, although queries over occurrence (Wells, 1997).
Tonga: 'Overfished especially near population centres.' (IUCN, TRAFFIC and WCMC, 1995). Small-scale enterprises supply *T. squamosa* to the marine aquarium trade (Foyle *et a*l. 1997, Hart *et a*l. 1998, both in Adams *et a*l., 2001). Populations are affected by over-exploitation, especially near population centres. Harvested for domestic food use, shell used for decorative purposes and also exported live for the aquarium trade. There are limitations regarding the types of fishing gear used. Scuba and hookah are prohibited for the harvest of this species and there is also a minimum size shell length of 180mm for *T. squamosa* (Raymakers *et al.,* 2003).
Tuvalu: Overfished; stock densities low (Wells, 1997).
USA [int.] (Hawaii)
Vanuatu: Priced subsistence foods for the local Ni-Vanuatu population (Zann and Ayling, 1988). Patchy or rare, probably naturally (Wells, 1997).
Viet Nam: Known from the Hon Mun and the Phu Quoc proposed marine protected areas (ADB 1999)BirdLife International *et al* 2001a and b.
Wallis and Futuna Islands: Occurrence noted (Wells, 1997).
Western Samoa: Very rare through overfishing (Wells, 1997).

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INTERNATIONAL TRADE

Gross Exports of *Tridacna maxima*

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Australia	shells	0	0	0	0	0	0	1	0	0	0	0
Belgium	live	0	0	6	0	0	0	0	0	0	0	0
Egypt	live	0	0	0	0	1316	775	1310	430	0	0	0
ex. Trust Territory	live	0	0	166	376	90	425	395	0	0	0	0
ex. Trust Territory	shells	0	0	0	0	0	2	0	0	0	0	0
Fiji	live	0	0	280	49	137	1040	156	305	127	160	597
Fiji	shells	0	0	0	0	0	0	0	0	0	42	0
Indonesia	live	0	0	0	0	0	20	0	20	0	100	0
Indonesia	shells	0	0	2	0	0	0	0	0	0	53	0
Kenya	shells	0	0	0	0	0	0	0	0	0	0	2
Kiribati	shells	0	0	0	3	0	0	0	0	0	0	0
Madagascar	shells	0	0	0	0	1875	0	2	0	0	0	0
Marshall Islands	live	0	0	50	123	65	0	270	378	403	1020	1312
Micronesia	live	0	0	0	0	0	0	0	0	0	0	1
Mozambique	shells	0	0	0	0	40200	0	0	0	0	0	0
Mozambique	shells (kg)	0	0	0	20000	10010	0	0	0	0	0	0
New Caledonia	shells	0	0	0	0	0	0	218	211	269	258	318
Papua New Guinea	meat (kg)	0	0	0	0	2000	0	0	0	0	0	0
Papua New Guinea	shells	0	8	1	6	4	2	0	0	0	0	0
Palau	live	50	0	0	0	2	0	0	0	0	0	0
Philippines	live	0	0	5	0	2	0	0	0	0	0	0
Philippines	shells	60257	1	12	13	0	11	1	0	0	0	16
Philippines	shells (kg)	3428	0	0	0	0	0	0	0	0	0	0
Samoa	live	0	0	0	0	0	0	0	0	5	62	0
Seychelles	shells	0	0	0	0	0	0	0	0	1	0	0
Singapore	shells	0	0	4	0	0	0	0	0	0	0	0

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Solomon Islands	live	0	7	859	3180	2837	1326	24	837	140	552	343
Tonga	live	13	594	0	761	1925	254	0	226	1573	1663	2474
Tonga	live (kg)	0	0	0	0	0	4	0	0	181	261	0
Tonga	shells (kg)	0	0	0	0	0	0	0	0	0	4500	0
United States	live	0	0	0	30	0	0	46	0	0	0	0
Unknown	live	0	0	0	0	0	0	25	0	0	0	0
Unknown	shells	0	0	0	0	0	0	0	1	0	0	0
Vanuatu	live	0	0	0	0	0	0	3	300	2415	1015	0
Vanuatu	shells	0	45	25	0	0	73	149	48	33	26	7
Viet Nam	live	0	0	0	0	0	110	3750	8900	23700	15081	18654
Viet Nam	live (kg)	0	0	0	0	0	0	0	0	0	10000	0
Viet Nam	shells (kg)	0	0	0	0	0	0	0	0	17004	0	10000
Yemen	live	0	0	0	0	0	0	2	7	0	0	0

COMMENT
Recommend inclusion for review as the status of the species for the main exporting countries is unknown, or in the case of Tonga, because of reports that the species is being over-fished.

7 *Tridacna tevoroa*

FAMILY TRIDACNIDAE

COMMON NAME(S) Tevoro Clam (English); Bénitier de Tevoro (French)

GLOBAL CONSERVATION STATUS VU B1+2c (Wells, 1996)

DISTRIBUTION AND LOCAL CONSERVATION STATUS
First described in 1990 (Wells, 1997)

Fiji: Lau Islands. Rare, low abundance compared to other species (Wells, 1997).
Tonga: Ha'apai, Vava'u and Tongatapu (Wells, 1997). Populations are affected by over-exploitation, especially near population centres (Anon. 1993). Harvested as meat for domestic consumption and their shells used as decorative items. There are limitations regarding the types of fishing gear used. Scuba and hookah are prohibited for the harvest of this species (Raymakers *et al.*, 2003).

"The species *Tridacna tevoroa*, endemic to the Lau and Tongan waters, has been overfished in the Ha'apai Group (Zann, 1994)" (Lovell and Palaki, 2002).

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COMMENT
Recommend species be excluded from review as there is no reported trade.

8 ***Hippopus hippopus***

FAMILY TRIDACNIDAE

COMMON NAME(S) Bear Paw Clam; Horse's Hoof Clam; Strawberry Clam (English)

GLOBAL CONSERVATION STATUS LR/cd (Wells, 1996)

DISTRIBUTION AND LOCAL CONSERVATION STATUS
Occurs from Myanmar, east to the Marshall Islands and south to New Caledonia and is still found in 19 countries. Populations are greatly reduced in abundance and it is now extinct in several places (Wells, 1997)

American Samoa (ex, reint): Extinct (Wells, 1997)
Australia: *Queensland*: Occurs, abundant (Wells, 1997)
Cook Islands (int), Introduced into Aitutaki from Australia in 1990" (Ministry of Marine Resources, Government of the Cook Islands, date?)
Fiji (ex, reint): Extinct, only fossil records (Wells, 1997).
Guam (ex): Presumed extinct through overfishing (Wells, 1997).
? India : ?*Andaman Is*, ?*Nicobar Is*: Occurrence reported (Wells, 1997).
Indonesia: All coastal waters (Wells, 1997) Wild populations have been affected by over-exploitation (Raymakers *et al.,* 2003). Smuggling of *H. hippopus* shells and live specimens for the aquarium trade in Singapore as first destination have been reported (Aspari Rachman, C.V. Dinar (aquarium exporter), Bali, Indonesia, *in litt*. (answer to questionnaire) to TRAFFIC Europe, December 2002).
Japan (ex?): Wells (1997) states that Shang *et al* (1990) list *H.hippopus.*
Kiribati: Occurs in Gilbert Islands (Wells, 1997).
Malaysia: *Sabah* Occurrence not confirmed (Wells, 1997).
Marshall Islands: Collected for subsistence purposes as food (Raymakers *et al.,* 2003). Widespread but varies in abundance (Wells, 1997).
?Mauritius: According to the Muaritius CITES Management Authority (*in litt.* To CITES Secretariat, 1995) also occurs in Mauritius, but this has not been confirmed by the scientific literature (Wells, 1997).
Micronesia, Federated States of: (ex, reint) Has become locally extinct due to overexploitation (Raymakers *et al.,* 2003). Rare in Kosrae due to over fishing: declining in Pohnpei since commercial harves began in 1986; very low numbers elsewhere (Wells, 1997).
Myanmar: Occurrence reported (Wells, 1997).
New Caledonia: One of the main species of Tridacnidae traded by New Caledonia (Raymakers *et al.,* 2003). Present (Wells, 1997).
Northern Mariana Islands (ex, reint) Extinct? (Wells, 1997).
Palau: Occurs (Wells, 1997).
Papua New Guinea: Used for subsistence purposes (Munro, 1989). Occurs (Wells, 1997).
Philippines: Occurs; not abundant; last stronghold in S. Palawan and population west of Zambales (Wells, 1997).
Samoa (ex, reint), Singapore, Solomon Islands, Taiwan (ex?), ? Thailand,
Singapore: Rare (Wells, 1997).
Solomon Islands: Restricted but not as rare as *T.derasa* (Wells, 1997).
Taiwan: Occurs only on Penghu Island and Hengchun Peninsular (Wells, 1997).
Thailand: May occur (Wells, 1997).
Tonga: (ex, reint), "Extinct but recent fossils. Re-introduced from JCU 1991" (Wells, 1997). There are limitations regarding the types of fishing gear used. Scuba and hookah are prohibited for the harvest of this species (Raymakers *et al.,* 2003). Officially not collected at all (Raymakers *et al.,* 2003).
Tuvalu: Overfished (Wells, 1997).
Vanuatu: Priced subsistence foods for the local Ni-Vanuatu population (Zann and Ayling, 1988). Patchy or rare; overfished on inhabited islands; most common on uninhabited Cook Reef and Reef Islands; absent from heavily populated areas such as Malekula (Wells, 1997).
Viet Nam: Occurrence reported (Raymakers *et al.,* 2003).
Western Samoa: Extinct . Re-introduced from JCU in 1991 and from CAC 1990 and 1992 (all died)(Wells, 1997). *H. hippopus* is found in the Indo-Pacific region and is hunted for food and souvenirs (Lukan, 2000).

Marine resources have been depleted due to subsistence, artisanal and commercial fishing pressures related to increase in fishing communities. Examples include bêche-de-mer, trochus, giant clams, coral, shells and live fish. Locally giant clams (*Tridacna gigas* and *Hippopus hippopus*) and coconut crabs have become extinct in the country due to overharvesting. Previously permitted commercial harvesting of turtles has resulted in an alarming reduction in the population of the once plentiful green and hawksbill populations (WWF Pacific, 2002).

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INTERNATIONAL TRADE

Gross Exports of *Hippopus hippopus*

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Australia	shells	0	0	0	0	0	0	6	0	0	0	0
ex. Trust Territory	live	0	0	14	1030	0	0	0	0	0	0	0
Fiji	live	0	0	0	0	0	28	27	73	22	0	14
Indonesia	live	0	0	0	0	0	9	0	0	0	0	0
Marshall Islands	live	0	0	0	0	0	0	0	52	0	20	155
Mexico	bodies (kg)	0	0	0	0	0	0	0	8	0	0	0
Micronesia	live	0	0	0	0	0	0	0	0	0	0	8
New Caledonia	shells	0	0	0	0	0	0	5112	778	926	1067	1018
Papua New Guinea	shells	0	1	0	0	0	0	0	0	0	0	0
Palau	live	0	0	6	0	0	0	77	0	60	16	0
Palau	shells	0	0	0	0	1	0	0	0	3	0	0
Philippines	live	0	0	20	0	15	0	0	0	0	0	0
Philippines	shells	142128	0	2	2	0	1	0	76	9	3	29
Philippines	shells (kg)	23990	0	0	0	0	0	0	0	0	0	0
Pitcairn	live	0	0	9	0	0	0	0	0	0	0	0
Solomon Islands	live	0	215	88	576	340	319	105	82	39	325	177
Solomon Islands	shells	0	0	0	20	0	0	0	0	0	0	0
Taiwan	shells	0	0	0	0	0	0	0	0	0	0	2
Tonga	live (kg)	0	0	0	0	0	0	0	0	0	20	0
United States	live	3	0	0	0	0	0	0	0	0	0	0
Unknown	live	0	0	0	0	0	10	0	0	0	0	0
Unknown	shells	0	0	0	0	0	1	0	0	0	0	0
Vanuatu	live	0	0	0	0	0	0	0	150	34	0	0
Vanuatu	shells	0	9	25	0	0	99	123	50	56	19	7
Viet Nam	shells (kg)	0	0	0	0	0	0	0	0	1000	0	0

COMMENT

Recommend inclusion for review as populations are greatly reduced in abundance and it is now extinct in several places.

9 *Hippopus porcellanus*

FAMILY TRIDACNIDAE

COMMON NAME(S) China Clam (English)

GLOBAL CONSERVATION STATUS LR/cd (Wells, 1996)

DISTRIBUTION AND LOCAL CONSERVATION STATUS
The natural distribution of the species is eastern Indonesia, southern Philipines, Palau, and Papua New Guinea. It has been cultured in Palau, Philippines and Indonesia, but continues to be a rare species (Anon, 2003).

Very restricted distribution in Indonesia, the Philippines and Palau (Wells, 1997).

Indonesia: North coast only; marked decline (Wells, 1997). Wild populations have been affected by over-exploitation (Raymakers *et al.*, 2003).
Malaysia: *Sabah* Occurrence reported (Raymakers *et al.*, 2003).
Palau: Occurrence reported (Wells, 1997).
Papua New Guinea: Occurrence reported (Kinch, 2002).
Philippines: Confined to south in Sulu and S. China Seas; considered endangered (Wells, 1997; Wells, 1997). Stock assessments of wild tridacnid populations in the Philippines date back to the 1984-1986 surveys done by the University of the Philippines Marine Science Institute (UPMSI) and the Silliman University Marine Laboratory (SUML). *T. gigas*, *T. derasa* and *Hippopus porcellanus* have been reported as overfished (Juinio et al., 1989). *H. porcellanus* may be virtually extinct, and if ever a few populations remain, these might be located in the further south of the Philippines" (Mingoa-Licuanan, S. S. and Gomez, E. D. 2002).

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INTERNATIONAL TRADE

Gross Exports of *Hippopus porcellanus*

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Palau	shells	0	0	0	0	1	0	0	0	0	0	0
Philippines	shells	35935	0	0	20	0	0	0	0	0	0	0
Philippines	shells (kg)	4595	0	0	0	0	0	0	0	0	0	0
Solomon Is.	live	0	0	0	0	0	21	0	0	0	0	0

COMMENT
Recommend species is not included for review as there has been very little trade since the early 1990s.

10 Tridacnidae spp.

FAMILY TRIDACNIDAE

COMMON NAME(S) Giant clams

INTERNATIONAL TRADE

Gross Exports reported to family or genus level only - Tridacnidae spp., *Tridacna* spp., *Hippopus* spp.

Exporter	Term	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Cook Islands	meat	0	0	0	0	2.5	40	0	26	27	214	1023
Cook Islands	meat (kg)	0	0	0	0	0	0	20	0	0	0	0
Cook Islands	shells	0	0	0	2	39.5	154	146	62	17	76	188
Egypt	live	0	0	0	0	740	0	450	250	0	0	0
Fiji	live	0	0	20	0	0	44	691	3032	75	3	45
Fiji	live (kg)	0	0	0	0	0	0	0	0	0	13	0
Fiji	meat	0	0	0	0	0	0	0	0	0	17	0
Fiji	meat (kg)	0	0	0	0	1700	0	20	25	0	0	0
Fiji	shells	6	14	0	12	65	2	9	8	5	11	22
Indonesia	live	0	0	0	0	0	0	0	0	1500	0	0
Indonesia	shells	3	1	1	0	25	0	41	0	0	0	0
Kiribati	meat	0	0	0	0	0	0	0	0	0	16	0
Kiribati	meat (kg)	0	0	0	0	0	44	0	0	0	0	0
Madagascar	live	0	0	0	0	0	0	800	0	0	0	0
Madagascar	shells	0	0	0	0	0	26	4307	1	0	0	0
Marshall Islands	live	0	0	400	520	490	0	0	125	0	0	0
Marshall Islands	meat (kg)	0	0	0	0	0	0	0	22	0	0	0
Mozambique	shells (kg)	0	0	0	3281	2000	0	0	0	0	0	0
New Caledonia	shells	0	0	225	360	264	2336	456	4	14	7	26
New Caledonia	shells (kg)	0	0	0	0	2366.3	4	0	0	0	0	0
Papua New Guinea	meat (kg)	0	0	0	0	12000	0	0	0	0	0	0
Papua New Guinea	shells	0	1	13	6	255	3	6	0	14	16	11
Palau	live	0	0	0	175	0	0	0	0	0	0	0
Philippines	live	0	2567	305	2304	298	0	0	0	0	0	0
Philippines	shells	42997	453	12	3811	107	0	2	90	5	1	19
Philippines	shells (kg)	1700	0	0	0	0	0	0	0	0	0	0.908
Samoa	meat	0	0	0	0	0	0	0	0	0	21	2
Samoa	shells	1	1	1	0	0	0	34	0	0	3	0
Seychelles	live	0	0	0	800	0	0	0	0	0	0	0
Solomon Islands	live	0	0	15	115	159	636	0	4	0	0	0
Solomon Islands	shells	33	0	5	0	0	5	12	0	0	0	0
Taiwan	shells	0	0	2772	0	0	0	0	0	0	0	0
Tonga	live	0	990	0	185	0	0	71	0	58	0	0
Tonga	live	0	1	0	0	0	0	0	28	216	0	0
Tonga	meat	223	0	0	0	60	4592	0	4702	3135	7828	7278
Tonga	meat (kg)	0	0	45	675	1220	0	7600	0	0	5	25
Tonga	shells	0	0	0	6	8	0	31	178	13	115	67
Vanuatu	live	0	0	0	0	0	500	0	799	9946	0	9
Vanuatu	shells	37.5	27	0	0	0	24	24	80	12	66	133
Viet Nam	live	0	0	0	0	0	340	7880	26444	27535	0	0

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