

INTRODUCTION TO GIANT CLAMS REVIEWS

All giant clam species are molluscs of the Class Bivalves, Order Veneroida and Family Tridacnidae, composed of two genera, *Hippopus* and *Tridacna*, and nine species: *H. hippopus* (Bear Paw or Horse's Hoof Clam); *H. porcellanus* (China Clam); *T. crocea* (Boring or Crocus Clam); *T. derasa* (Smooth or Southern Giant Clam); *T. gigas* (Giant Clam); *T. maxima* (Small Giant Clam); *T. rosewateri*; *T. squamosa* (Fluted or Scaly Giant Clam); and *T. tevoroa* (Tevoro Clam). The following information is provided as background to the reviews for the six giant clam species subject to the current Review of Significant Trade.

SPECIES CHARACTERISTICS

Biological characteristics

The family Tridacnidae contains the largest existing bivalves, with individuals of some species capable of reaching one metre in diameter and 150 kg. They are sedentary and settle at a very young stage of their life. As soon as eight days after hatching, the swimming larvae (veliger) start their metamorphosis and look for the best substrate to settle on (Braley, 1992).

Giant clams are filter-feeders that pump seawater through their body and thereby capture suspended particles and dissolved organic elements. In addition to seawater filtration, they have zooxanthellae (symbiotic algae) that accumulate energy from sunlight through photosynthesis and have the capacity to extract phosphates, nitrates and other nutrients present in seawater (Rosewater, 1965). Their reliance on light-dependent zooxanthellae restricts giant clams generally to shallow (< 20 m) water.

Young giant clams may be predated by a variety of species (Rubin *in litt.*, 2002), including fishes such as some triggerfish (e.g. *Balistapus* spp.) and the Eagle Ray (*Aetobatus narinari*), molluscs including various predatory gastropods, hermit crabs and mantis shrimps and marine turtles including Loggerhead (*Caretta caretta*) and Hawksbill (*Eretmochelys imbricata*). In artificial conditions, such as giant clam hatcheries, ponds and reef flats, where they are reared at high densities, diseases and parasites may be prevalent (Boglio and Lucas, 1997; Braley, 1992; Norton *et al.*, 1993; Rubin, *in litt.*, 2002).

Giant clams are highly vulnerable to stock depletion for a number of reasons: they reach sexual maturity late, cannot move as adults and occur generally in accessible waters (Rosewater, 1965). In addition they are hermaphrodites that maximise the fertilisation of their eggs by synchronising their spawning. The latter is triggered by the release of pheromones that stimulate breeders located nearby (Lucas, 1988) so that if population densities decrease breeding is disrupted.

Distribution

The area of distribution of the family covers the Indo-Pacific region and extends from the eastern coast of Africa to the South Pacific, close to 120° west in the southern hemisphere (e.g. French Polynesia). While some species are widely distributed others only occur in a very restricted area and may be endemic to one country.

Threats

Giant clams are exposed to a number of human generated threats, such as pollution, habitat loss (including causes of coral reef degradation such as climate change) and unmanaged commercial fisheries. Land-based activities, including deforestation as a result of logging, mining and agricultural development that cause siltation on coral reefs, have been reported as major sources of pollution affecting giant clam habitat (Blidberg *et al.*, 1999; Wells, 1997).

Because giant clams are seafood of high commercial value, easily accessible and sedentary, they have been seriously over-fished in many areas (Anon., 1992). Almost all giant clam populations are exposed to harvest by free divers that do not need scuba gear or hookah. Because giant clams reach a harvestable

size before reaching maturity, there is a high probability that individuals will be collected before they have the chance to reproduce. When remaining breeding individuals become scattered, synchronized spawning may not occur and fertilisation of spawn may be limited.

In addition, several species of Tridacnidae have suffered mass mortalities from yet unknown sources. For example in the late 1980s populations of *T. derasa* at Lizard Island, Australia suffered mortalities of around 50% (Wells, 1997).

REFERENCES

- Anon. (1992). The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Proceedings of a workshop held for those involved in the trade of giant clams. Central Tropical and Subtropical Aquaculture, HI (USA). *Central Tropical and Subtropical Aquaculture Publications*, No. 108, 44 pp.
- Blidberg, E., Elfwing, T. and Tedengren, M. (1999). Physiological responses of the fluted giant clam *Tridacna squamosa* exposed to decreased irradiance and reduced salinity. Hylleberg, J (ed). *Proceeding of the ninth Workshop of the Tropical Marine Mollusc Programme (TMMP)*, Indonesia, 19-29 August 1998. Part 1. Vol. 19, No 1, pp. 85-91. Special publication. Phuket Marine Biological Center.
- Boglio, E.C. and Lucas, J.S. (1997). Impacts of ectoparasitic gastropods on growth, survival, and physiology of juvenile giant clams (*Tridacna gigas*), including a simulation model of mortality and reduced growth rate. *Aquaculture* 150 (1-2): 25-43.
- Braley, R.E. (eds) (1992). *The Giant Clam: Hatchery and Nursery Culture Manual*. ACIAR Monograph 15, Australian Centre for International Agriculture Research, Canberra.
- Lucas, J.S. (1988). Giant clams: description, distribution and life history. In: Copland, J. and Lucas, J. (eds). Giant Clams in Asia and the Pacific. ACIAR Mongraph 9:21-33. Australian Centre for International Agriculture Research, Canberra, Australia.
- Norton, J.H., Shepherd, M.A., Long, H.M and Prior, H.C. (1993). Parasites of the giant clams (Tridacnidae). Biology and mariculture of giant clams. Australian Centre for International Agricultural Research, Canberra, A.C.T. (Australia). *ACIAR Proceedings*. Canberra. N° 47, pp. 18-23.
- Rosewater, J. (1965). The Family Tridacnidae in the Indo-Pacific. *Indo-Pacific Mollusca*, 1-6:347-396.
- Rubin, B. *in litt.* (2002). to New Caledonian North Province authorities.
- Wells, S. (1997). *Giant Clams: Status, Trade and Mariculture, and the Role of CITES in Management*. IUCN, Gland, Switzerland and Cambridge, UK. ix + 77 pp.
- Yonge (1975). In: Beesley, P.L., Ross, G.J.B. and Wells, A. (1998) *Mollusca: The Southern Synthesis. Fauna of Australia*. Vol. 5. CSIRO Publishing: Melbourne, Part A xvi 563 pp.

Gross Exports recorded by Genus/Family level

Country/Territory		Term	Unit	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
United Arab Emirates	Tridacnidae spp.	shells		0	0	0	0	0	0	0	0	1	0
American Samoa (US)	Tridacnidae spp.	meat		0	0	1	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		3	0	34	12	0	0	1	5	5	0
Austria	Tridacna spp.	shells		9	0	0	0	0	0	0	0	0	0
Australia	Tridacna spp.	carvings		0	0	0	6	0	1	0	0	0	0
	Tridacna spp.	shells		0	0	0	31	0	0	1	0	0	0
	Tridacna spp.	specimens		0	0	0	0	0	0	50	0	0	0
	Tridacnidae spp.	meat	kg	0	5	0	0	20	0	0	0	0	0
	Tridacnidae spp.	meat		0	0	2	20	0	3	19	31	3	4
	Tridacnidae spp.	shells		80	51	93	95	117	96	112	94	155	119
Bangladesh	Tridacnidae spp.	shells		0	0	0	0	0	0	0	0	4	0
Belgium	Tridacnidae spp.	shells		0	0	1	0	0	0	0	0	2	2
Brunei Darussalam	Tridacnidae spp.	shells		1	0	0	0	0	0	0	0	0	0
Bahamas	Hippopus spp.	live	kg	0	0	0	0	0	0	1278	0	0	0
	Hippopus spp.	unspecified	kg	0	0	0	0	0	0	1773	0	0	0
	Hippopus spp.	unspecified		0	0	0	0	5505	0	47607	0	0	0
	Tridacnidae spp.	shells		0	0	10	1	0	0	0	0	0	0
Botswana	Tridacnidae spp.	shells		0	0	0	0	0	2	0	0	0	0
Canada	Hippopus spp.	shells		0	0	0	0	0	0	0	0	0	1
	Tridacna spp.	live		0	0	0	0	0	55	0	0	0	0
	Tridacna spp.	shells		0	0	0	0	1	0	0	0	0	0
	Tridacnidae spp.	live		0	0	6	0	0	0	0	0	0	0
	Tridacnidae spp.	shells	kg	0	0	0	0	0	0	0	0	0	100
	Tridacnidae spp.	shells		0	0	1	3	2	4	0	0	5	1
Cocos (Keeling) Islands (AU)	Tridacnidae spp.	shells		69	0	0	0	0	0	0	0	0	0
Switzerland	Tridacna spp.	carvings		0	0	0	0	0	0	0	4	0	5
	Tridacna spp.	live		0	0	0	0	1	0	0	0	285	0
	Tridacnidae spp.	carvings		0	0	0	0	0	0	6	0	0	4
	Tridacnidae spp.	shells		0	7	0	0	0	0	0	0	0	0
Cook Islands	Tridacna spp.	shells		0	0	90	0	0	0	0	12	0	0
	Tridacnidae spp.	meat	g	500	0	0	0	0	0	0	0	0	0
	Tridacnidae spp.	meat	kg	0	14	0	0	100	0	0	0	0	0
	Tridacnidae spp.	meat		0	0	9	66	0	59	42	303	1058	2083
	Tridacnidae spp.	shells	kg	0	1	0	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		169	192	258	457	583	692	612	752	977	867
Chile	Tridacnidae spp.	shells		0	0	0	0	6	0	0	0	0	0
China	Tridacnidae spp.	carvings		0	0	0	0	0	0	0	0	0	1

Country/Territory		Term	Unit	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
China	Tridacnidae spp.	meat		0	0	0	0	0	0	0	0	0	2	
	Tridacnidae spp.	shells		0	0	0	0	0	0	1	1	3	2	
Christmas Islands (AU)	Tridacnidae spp.	shells		5	0	0	0	0	0	0	0	6	6	
Cyprus	Tridacnidae spp.	shells		1	0	0	0	1	0	0	0	0	0	
Czech Republic	Tridacnidae spp.	shells		0	0	0	0	0	0	1	0	0	0	
Germany	Tridacna spp.	shells		9	0	0	0	0	0	0	0	0	3	
	Tridacnidae spp.	live		0	0	0	0	40	0	0	0	0	0	
	Tridacnidae spp.	shells		0	0	0	0	2	0	2	6	6	0	
Denmark	Tridacna spp.	shells		0	0	0	0	0	0	0	0	3	3	
Egypt	Tridacna spp.	live		0	0	740	0	0	0	0	0	0	0	
	Tridacna spp.	shells		0	0	3	0	0	0	0	0	0	0	
	Tridacnidae spp.	live		0	0	0	0	450	250	0	0	0	0	
	Tridacnidae spp.	shells		7	0	0	7	3	2	1	1	0	0	
Western Sahara	Tridacnidae spp.	shells		0	0	0	0	1	0	5	0	0	0	
Spain	Tridacnidae spp.	shells		0	0	0	0	0	3	0	0	0	0	
Finland	Tridacnidae spp.	shells		0	0	0	0	1	0	0	0	0	0	
Fiji	Tridacna spp.	live	kg	0	0	0	0	0	0	0	0	13	0	0
	Tridacna spp.	live		20	0	0	44	600	2	75	3	45	0	
	Tridacna spp.	meat	kg	0	0	0	0	0	25	0	0	0	0	
	Tridacna spp.	shells		0	5	0	0	14	0	3	0	2	0	
	Tridacnidae spp.	live		0	0	0	0	293	6620	0	0	0	0	
	Tridacnidae spp.	meat	kg	14	6	1715	0	160	0	0	0	0	0	
	Tridacnidae spp.	meat		0	0	15	2	0	18	15	120	16	10	
	Tridacnidae spp.	raw corals		0	0	0	0	0	0	0	0	0	2	
	Tridacnidae spp.	shells	kg	0	12	0	0	0	0	0	0	0	0	
	Tridacnidae spp.	shells		748	759	852	1409	1421	1191	753	1343	1413	1092	
Micronesia (Federated States of)	Tridacnidae spp.	unspecified		0	0	1	0	0	0	0	0	0	0	
	Hippopus spp.	live		0	0	0	0	0	0	0	0	4	0	
	Hippopus spp.	shells		0	0	0	0	0	0	0	2	0	0	
	Tridacna spp.	live		0	0	0	0	0	0	0	0	2	1	
	Tridacna spp.	shells		0	0	0	0	0	0	0	20	0	0	
France	Tridacnidae spp.	carvings		0	0	0	0	1	0	0	0	0	0	
	Tridacnidae spp.	live		0	0	0	0	0	800	100	0	0	0	
	Tridacnidae spp.	shells		0	0	0	4	4	4	0	0	0	0	
	United Kingdom of Great Britain and Northern Ireland	Tridacna spp.	carvings	0	0	0	0	0	0	3	2	0	0	
		Tridacnidae spp.	shells	9	1	1	3	7	2	6	1	5	1	

Country/Territory		Term	Unit	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Grenada	Tridacnidae spp.	shells		0	0	0	0	0	2	0	0	0	0
Equatorial Guinea	Tridacnidae spp.	shells		0	0	0	0	0	0	3	0	0	0
Greece	Tridacna spp.	shells		1	0	0	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		0	0	0	0	2	0	6	1	2	4
Guam (US)	Tridacnidae spp.	shells		0	0	0	1	0	0	0	0	0	0
Hong Kong (SAR, China)	Hippopus spp.	shells		0	114	0	0	0	0	0	0	0	0
	Tridacna spp.	live		0	0	0	0	0	250	0	0	0	0
	Tridacna spp.	shells		0	24	0	0	2	0	0	0	2	0
	Tridacnidae spp.	meat		0	0	0	0	0	0	0	10	0	2
	Tridacnidae spp.	shells		0	3	15	0	1	0	67	3	3	1
Croatia	Tridacnidae spp.	shells		0	0	0	0	1	0	0	0	0	1
Indonesia	Hippopus spp.	shells		0	0	0	0	40	0	0	0	0	0
	Tridacna spp.	live		9	0	0	0	0	0	0	0	0	0
	Tridacna spp.	shells		3	0	25	15	12	1	9	0	4	50
	Tridacnidae spp.	live		0	0	0	0	0	0	1500	0	0	0
	Tridacnidae spp.	meat		0	0	4	0	0	0	0	5	0	0
	Tridacnidae spp.	shells	kg	0	1	0	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		63	139	101	159	197	153	129	111	77	38
Israel	Tridacna spp.	shells		0	0	0	0	0	3	0	0	0	0
	Tridacnidae spp.	shells		0	0	0	2	0	0	0	0	0	2
India	Tridacnidae spp.	shells		2	0	2	2	3	0	0	1	10	0
Italy	Hippopus spp.	shells		0	0	6	0	0	0	0	0	0	0
	Tridacna spp.	shells		0	0	0	0	0	1	0	0	0	0
Japan	Tridacna spp.	shells	g	0	5	0	0	0	0	0	0	0	0
	Tridacna spp.	shells	kg	0	0	1	0	0	0	0	0	1	0
	Tridacna spp.	shells		0	0	0	2	1	0	0	1	0	0
	Tridacna spp.	specimens		0	0	0	0	2800	0	0	0	0	0
	Tridacnidae spp.	shells	kg	0	0	0	2	0	0	0	0	0	0
Kenya	Tridacna spp.	shells		0	0	0	320	0	0	0	5	1	0
	Tridacnidae spp.	shells		0	1	0	0	0	1	0	0	0	0
Cambodia	Tridacnidae spp.	shells		0	0	0	0	0	0	0	0	0	1
Kiribati	Hippopus spp.	shells		0	0	2	0	0	0	0	12	0	0
	Tridacna spp.	meat	kg	0	0	0	44	0	0	0	0	0	0
	Tridacna spp.	shells		0	0	1	0	30	0	6	1	0	0
	Tridacnidae spp.	meat		0	0	0	0	0	0	0	46	0	0
	Tridacnidae spp.	shells		0	9	0	3	1	32	0	17	10	0
Comoros	Tridacnidae spp.	shells		0	0	0	0	0	0	0	1	0	0
Korea (Republic of)	Tridacnidae spp.	meat		0	0	0	0	0	0	0	1	0	1

Country/Territory		Term	Unit	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Cayman Islands (GB)	Tridacnidae spp.	shells		0	0	0	2	0	0	0	0	0	0
Saint Lucia	Tridacnidae spp.	shells		0	0	0	3	0	0	0	0	0	0
Sri Lanka	Tridacnidae spp.	shells		0	0	0	0	2	0	0	0	0	0
Morocco	Tridacnidae spp.	shells		0	0	1	0	0	0	0	0	8	0
Madagascar	Tridacna spp.	live		0	0	0	0	800	0	0	0	0	0
	Tridacna spp.	shells		0	0	0	0	4301	1	0	0	0	0
	Tridacnidae spp.	shells		0	0	0	26	6	0	1	0	0	0
Marshall Islands	Hippopus spp.	carvings		0	0	0	0	0	0	0	2	0	0
	Hippopus spp.	live		0	0	0	0	0	2	10	0	64	0
	Hippopus spp.	shells		0	0	0	0	0	0	4	14	0	0
	Tridacna spp.	carvings		0	0	0	0	0	1	0	4	0	0
	Tridacna spp.	live		400	520	490	0	0	123	0	0	121	0
	Tridacna spp.	meat	kg	0	0	0	0	0	0	5	0	0	0
	Tridacna spp.	shells	g	0	0	0	0	0	0	0	1	0	0
	Tridacna spp.	shells	kg	0	0	0	0	0	0	0	10	0	0
	Tridacna spp.	shells		0	0	0	0	0	18	47	30	0	0
	Tridacnidae spp.	meat	kg	0	0	0	0	0	22	0	0	0	0
	Tridacnidae spp.	meat		0	0	11	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		0	0	4	0	0	1	11	53	2	0
Mauritius	Tridacnidae spp.	shells		0	0	0	0	0	0	1	1	0	2
Maldives	Tridacnidae spp.	shells		0	0	3	0	3	0	0	2	2	0
Malawi	Tridacnidae spp.	shells		0	3	0	0	0	0	0	0	0	0
Mexico	Tridacna spp.	shells		0	3	5	0	0	0	0	0	0	0
	Tridacnidae spp.	live		0	1	0	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		0	0	0	1	0	0	0	0	0	0
Malaysia	Hippopus spp.	shells		0	0	0	1	0	0	0	0	0	0
	Tridacna spp.	shells		0	0	0	8	0	0	0	0	0	0
	Tridacnidae spp.	carvings		0	0	0	0	0	7	0	0	0	0
	Tridacnidae spp.	meat		0	0	0	0	0	0	0	10	0	1
	Tridacnidae spp.	shells		0	1	5	14	8	11	14	17	7	12
Mozambique	Tridacna spp.	shells	kg	0	296	0	0	0	0	0	0	0	0
	Tridacnidae spp.	shells	kg	0	2985	2000	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		0	0	0	0	0	2	0	0	0	0
New Caledonia (FR)	Hippopus spp.	shells		0	0	0	0	0	0	8	1	23	0
	Tridacna spp.	shells		0	0	0	0	4	0	6	6	3	0
	Tridacnidae spp.	carvings	kg	22	0	0	0	0	0	0	0	0	0
	Tridacnidae spp.	carvings		39	0	0	0	0	0	0	0	0	0
	Tridacnidae spp.	meat		0	0	1	0	0	0	0	5	6	0

Country/Territory		Term	Unit	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
New Caledonia (FR)	Tridacnidae spp.	shells	kg	0	0	2366	4	0	0	0	0	0	0
	Tridacnidae spp.	shells		310	396	329	2433	516	172	82	46	57	105
Norfolk Island (AU)	Tridacnidae spp.	shells		40	2	0	0	0	0	1	1	1	3
Netherlands	Hippopus spp.	shells		0	0	0	0	0	0	0	0	1	0
	Tridacnidae spp.	carvings		0	0	0	0	0	0	1	0	0	0
	Tridacnidae spp.	shells		0	0	0	2	0	0	1	0	1	0
Nauru	Tridacnidae spp.	shells		4	0	0	0	0	0	0	5	0	0
Niue	Tridacnidae spp.	meat		0	0	0	20	0	0	0	1	0	0
	Tridacnidae spp.	shells		11	8	4	1	5	10	8	14	2	17
New Zealand	Tridacna spp.	shells		0	0	0	0	0	0	0	10	0	0
	Tridacnidae spp.	shells		0	0	0	0	5	3	6	15	5	2
Oman	Tridacnidae spp.	shells		0	0	0	0	0	0	0	0	1	0
Trust Territory of the Pacific Islands	Hippopus spp.	shells		0	0	6	0	1	0	0	0	0	0
	Tridacna spp.	live		5	84	0	0	50	0	3	0	0	0
	Tridacna spp.	shells		0	8	13	29	108	10	0	0	0	0
	Tridacnidae spp.	live		10	0	0	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		2	13	0	0	17	0	0	0	0	0
Peru	Tridacnidae spp.	meat		0	0	0	0	0	0	0	0	10	0
French Polynesia (FR)	Tridacna spp.	carvings		0	0	0	0	0	0	0	5	0	0
	Tridacna spp.	shells		0	0	0	0	0	0	0	0	56	4
	Tridacnidae spp.	meat	kg	6	12	0	0	20	0	0	0	0	0
	Tridacnidae spp.	meat		0	0	2	49	0	0	0	15	1	1
	Tridacnidae spp.	shells		45	39	11	85	101	162	167	162	294	264
Papua New Guinea	Tridacna spp.	meat	kg	0	0	12000	0	6000	0	0	0	0	0
	Tridacna spp.	shells		13	5	255	3	6	0	14	16	11	12
	Tridacnidae spp.	live		0	0	7	0	0	0	0	0	0	0
	Tridacnidae spp.	meat		0	0	0	0	0	0	0	1	0	0
	Tridacnidae spp.	shells		19	6	20	6	17	9	30	28	45	15
Philippines	Hippopus spp.	carvings		3	0	0	4	129	5	32	52	0	0
	Hippopus spp.	shells		657	0	11	8	0	6	1200	0	0	0
	Tridacna spp.	carvings		1	5	1	0	1	3578	4	30	19	3
	Tridacna spp.	live		87	1866	298	0	0	0	0	0	0	0
	Tridacna spp.	shells	g	0	0	0	0	0	0	0	0	908	0
	Tridacna spp.	shells		47	3815	112	11	6	110	18	46	33	4
	Tridacna spp.	specimens		0	0	0	0	10	0	0	0	0	0
	Tridacnidae spp.	carvings		0	0	0	0	1	0	0	0	0	1
	Tridacnidae spp.	live		218	450	110	0	0	0	0	0	0	0

Country/Territory		Term	Unit	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Philippines	Tridacnidae spp.	shells		7	21	4	28	32	20	18	8	7	12
Poland	Tridacnidae spp.	shells		0	0	0	0	0	0	5	0	1	0
Pitcairn Islands (GB)	Tridacnidae spp.	shells		3	0	0	0	0	0	0	3	0	0
Palau	Hippopus spp.	shells		0	0	0	0	0	0	2	6	0	0
	Tridacna spp.	live		0	175	0	0	0	0	0	0	0	0
	Tridacna spp.	meat	kg	0	0	0	0	0	0	10	0	0	0
	Tridacna spp.	shells		0	0	15	0	0	2	5	25	0	0
	Tridacnidae spp.	live		0	0	0	0	68	0	0	0	0	0
	Tridacnidae spp.	shells		0	0	5	0	2	1	0	10	0	0
Romania	Tridacna spp.	shells		0	0	0	0	0	0	0	0	1	0
Russian Federation	Tridacnidae spp.	shells		0	0	0	0	0	0	1	0	0	0
	Tridacnidae spp.	shells		2	1	0	1	6	0	0	2	5	0
Solomon Islands	Hippopus spp.	live		0	0	88	0	0	0	0	0	9	0
	Hippopus spp.	shells		0	1	0	0	0	0	0	0	0	0
	Tridacna spp.	live		15	115	71	9636	716	4	0	39	0	0
	Tridacna spp.	shells		5	2	1	0	0	0	0	0	0	0
	Tridacnidae spp.	live		0	0	0	0	0	291	450	0	0	0
	Tridacnidae spp.	meat		0	0	0	0	0	0	0	0	0	5
	Tridacnidae spp.	shells	kg	0	0	2	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		51	40	32	453	57	7	6	21	11	0
Seychelles	Tridacna spp.	live		0	0	510	0	0	0	0	0	0	0
	Tridacna spp.	shells		0	0	0	0	2	0	0	1	0	0
	Tridacnidae spp.	live		0	800	0	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		0	2	0	0	0	0	0	0	2	2
Singapore	Tridacna spp.	live		0	4	0	0	0	0	0	0	0	0
	Tridacnidae spp.	meat		0	0	0	0	0	0	0	0	0	1
	Tridacnidae spp.	shells		20	0	2	2	2	0	7	3	7	0
Slovakia	Tridacna spp.	shells		0	0	0	0	0	0	0	0	0	3
Turks and Caicos Islands (GB)	Hippopus spp.	unspecified	kg	0	0	0	0	0	0	273	0	0	0
Southern and Antarctic Territories (FR)	Tridacnidae spp.	shells		0	0	0	0	6	0	5	0	0	0
Thailand	Tridacna spp.	shells		0	0	1	0	1	0	0	0	0	1
	Tridacnidae spp.	cartons		50	0	0	0	0	0	0	0	0	0
	Tridacnidae spp.	meat		0	0	0	0	0	0	0	2	28	8
	Tridacnidae spp.	shells		7	6	7	11	5	22	20	6	21	33
Tokelau	Tridacnidae spp.	meat	g	500	0	0	0	0	0	0	0	0	0
	Tridacnidae spp.	meat	kg	0	20	0	0	140	0	0	0	0	0
	Tridacnidae spp.	meat		0	1	3	30	0	0	0	2	18	14

Country/Territory		Term	Unit	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Tokeleau	Tridacnidae spp.	shells		4	16	1	0	1	2	1	0	34	0
Timor-Leste	Tridacnidae spp.	shells		0	0	0	0	0	0	1	0	4	0
Tonga	Tridacna spp.	live		0	185	102	0	71	0	58	0	0	101
	Tridacna spp.	meat	cans	0	0	0	0	0	0	40	0	0	0
	Tridacna spp.	meat	kg	0	0	0	0	20	0	0	5	0	0
	Tridacna spp.	shells		0	0	19	0	0	0	0	20	0	0
	Tridacnidae spp.	derivatives		0	0	0	0	0	0	0	0	0	20
	Tridacnidae spp.	live		0	0	0	0	0	28	290	0	0	0
	Tridacnidae spp.	meat	g	0	0	0	0	0	0	2783	0	0	0
	Tridacnidae spp.	meat	kg	124	833	1220	0	7960	0	0	0	100	0
	Tridacnidae spp.	meat		0	3	214	4921	0	6008	6617	7939	7384	4546
	Tridacnidae spp.	shells	kg	0	1	0	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		149	187	150	279	298	459	349	590	437	673
Turkey	Tridacnidae spp.	shells		0	0	0	0	0	0	0	2	1	0
Trinidad and Tobago	Tridacnidae spp.	shells		0	1	0	0	0	0	0	0	0	0
Taiwan (Province of China)	Tridacnidae spp.	shells		0	1	0	0	1	0	0	0	2	0
	Hippopus spp.	shells		2772	0	0	0	0	2	0	0	0	0
	Tridacnidae spp.	shells		6	0	0	0	7	0	0	1	0	5
United Republic of Tanzania	Tridacna spp.	shells		0	0	0	0	0	0	0	0	3	0
	Tridacnidae spp.	shells		0	0	0	0	0	0	0	2	0	3
Uganda	Tridacnidae spp.	shells		1	0	0	0	0	0	0	0	0	0
US minor outlying Islands	Tridacnidae spp.	shells		0	0	0	3	3	0	0	0	0	0
	Hippopus spp.	live		0	0	15	0	0	0	0	0	0	0
	Hippopus spp.	unspecified	kg	0	0	0	1791	0	0	0	0	0	0
	Tridacna spp.	carvings	kg	0	0	0	0	0	0	0	0	0	25
	Tridacna spp.	carvings		0	0	5	0	0	0	0	0	0	0
	Tridacna spp.	live		0	0	462	117	4	8	0	0	0	0
	Tridacna spp.	shells		0	0	0	1	0	0	3	0	0	2
	Tridacnidae spp.	carvings		0	0	0	2	0	0	0	0	0	0
	Tridacnidae spp.	live		4	0	0	15227	130	153	113	0	0	0
	Tridacnidae spp.	meat		0	0	0	0	0	0	0	1	9	2
	Tridacnidae spp.	shells		6	16	5	32	28	11	37	19	12	10
Uruguay	Tridacnidae spp.	shells		0	0	0	0	3	0	0	0	0	0
Virgin Islands (GB)	Tridacnidae spp.	shells		0	1	0	0	0	0	0	0	0	0
Virgin Islands (US)	Tridacnidae spp.	shells		0	0	0	0	5	0	0	0	0	0
Viet Nam	Tridacna spp.	carvings		0	0	0	0	0	0	0	0	11	0
	Tridacna spp.	live		0	0	0	340	6980	8126	0	0	0	0
	Tridacna spp.	shells		0	0	2	0	2	1	0	0	0	0

Country/Territory		Term	Unit	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Viet Nam	Tridacnidae spp.	live		0	0	0	0	900	21318	27535	0	0	0
	Tridacnidae spp.	shells	kg	0	0	0	0	0	0	2	0	0	0
	Tridacnidae spp.	shells		0	0	0	1	2	40	0	0	0	0
Vanuatu	Tridacna spp.	live		0	0	0	500	0	438	5	0	9	1026
	Tridacna spp.	shells		0	0	2	24	24	80	12	66	133	110
	Tridacnidae spp.	carvings		0	0	0	0	0	1	0	0	0	0
	Tridacnidae spp.	live		0	0	0	0	0	361	9941	0	0	0
	Tridacnidae spp.	meat	kg	0	0	0	0	40	0	0	0	0	0
	Tridacnidae spp.	meat		0	0	2	0	0	0	12	17	1	0
	Tridacnidae spp.	shells	kg	0	1	0	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		151	119	72	207	245	152	203	221	266	188
Samoa	Tridacna spp.	shells		0	0	0	0	0	1	0	0	0	0
	Tridacnidae spp.	meat	kg	7	12	0	0	180	0	0	0	0	0
	Tridacnidae spp.	meat		0	0	4	40	0	15	124	59	50	142
	Tridacnidae spp.	shells	kg	0	1	0	0	0	0	0	0	0	0
	Tridacnidae spp.	shells		77	58	21	103	202	258	97	229	244	206
Serbia and Montenegro (and Former Yugoslavia)	Tridacnidae spp.	shells		0	0	2	2	0	0	0	0	0	0
South Africa	Tridacna spp.	carvings		0	0	0	0	0	0	0	0	0	1
	Tridacna spp.	shells		0	0	0	0	6	0	0	0	10	0
	Tridacnidae spp.	shells		5	9	2	10	5	4	1	2	20	13
Zimbabwe	Tridacnidae spp.	shells		0	2	0	1	0	0	0	0	1	0
Asia	Tridacnidae spp.	shells		0	0	1	0	0	0	0	0	0	0
Unknown	Hippopus spp.	live		0	0	0	10	0	0	0	0	0	0
	Hippopus spp.	shells		6	0	0	0	1	0	0	0	0	0
	Tridacna spp.	shells		0	0	0	17	6	0	0	0	0	0
	Tridacnidae spp.	meat	g	0	170	0	0	0	0	0	0	0	0
	Tridacnidae spp.	meat	kg	1	14	2	0	0	0	0	0	0	0
	Tridacnidae spp.	meat		0	0	7	0	0	0	23	0	3	3
	Tridacnidae spp.	shells		81	56	72	999	26	181	70	40	53	119