

Fish 'N' Chips

A Monthly Marine Newsletter
March 2000 Issue

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From Liz

By Elizabeth M. Lukan 3/16/00

*A **Light Issue!*** This issue is small since I have no reviews to publish. I have none for this issue and nothing for future ones. Come on guys, help me out. I can only do so much each month - **I need reviews**. I'll take them for anything. Everybody is getting sick of all the skimmer reviews but I'd still take them if you want to do them (I can publish them in between other reviews). What I really want is reviews of books, heaters, lighting units/systems, bulbs, filters, hydrometers, reactors, coolers, controller products and just about anything you can think of.

Fishy Links Survey Results - Well, the majority have spoken. Thanks to all of you who took time out of your day to complete my little survey. Here's how the votes fell:

- You use the list.
- You like the list.
- You want an alphabetically listing in addition to the existing list.

Well, that's the deal. I'll be adding that alphabetical listing as soon as I have the time to create all those new pages! Thanks again everybody.

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Critter Corner

Tridacna maxima

By Elizabeth M. Lukan 3/16/00

General Information:

Tridacna maxima's usually show a variety of colors and patterns. Colors include combinations of blue, brown, green, grey, purple and yellow. Patterns can be stripes, blotches, or spots. More so than in other Tridacnids, there is usually larger areas of a solid color. Solid blue clams have been found in the Red Sea. A prominent row of black pigmented eye spots along the edge of the **mantle** is common, but shouldn't be always expected.

T. maxima's shells can vary depending on the environment they are in and the crowding of corals and other clams nearby. The shells are:

- usually asymmetrical and elongated
- three times longer than they are broad
- they have a short hinge
- they have a large **byssus gland** opening
- scutes are usually low and close together
- the lateral distance between scutes in adjacent rows is usually less than the scutes' width

The inhalant **siphon** has small, fine tentacles. The mantle sometimes exhibits an undulating shape with **tubercles** that are light sensitive. Although it is rare, the tubercles are sometimes quite numerous.

The maximum length of T. maxima according The Reef Aquarium is 14 inches (35cm). According to the article Tridacna Clams By Todd Kunkel, T. maximas can grow to 16 inches (40cm), but are usually smaller.

As mentioned in the T. crocea Critter Corner in the December 1999 issue of Fish 'N' Chips



(issue can be found at <http://www.marinefiends.com/issues/1999/fnc1299.html> (*updated 8/24/04*)), *T. maxima* is very similar in appearance to *T. crocea*. Here's a quote (hey, I'm quoting myself now!) ...

"*T. crocea*'s are often confused with *T. maxima*. The color patterns of these two clams is similar, the difference can be determined by the shells, which are much different. *T. maxima* usually have an elongated shell. Also, the scutes of *T. maxima* are more pronounced and cover most of the shell. The difference may also be determined by the byssus gland, which on *T. crocea* is very long and wide."

To discuss the differences between *T. maxima* and *T. crocea* a little further, the *T. maxima*'s have a smaller byssus opening. The byssus opening extends towards the edge of the shell, but not as much as *T. crocea*. The byssus opening's edge on the *T. maxima* tend to curl upwards with a **chitonous** ring surrounding.

Compared to *T. squamosa*, the shell of *T. maxima* is asymmetrical. The rows of scutes of a *T. maxima* are closer and the hinge is smaller

Common Name(s):

*T. maxima*s are sometimes known by the common names Great Clam, Maxima Clam, and Rugose Clam.



In The Wild:

T. maxima's are found, in the wild, on the tops or slopes of the reef in shallow water. They will have bored themselves slightly into the coral rock or substrate on which they sit and will be firmly attached by their byssus glands.

T. maxima's are the most common and widespread of the clams. According to The Reef Aquarium, they are found from the Red Sea and East Africa to Pitcairn Island in the eastern Pacific. Pitcairn Island is a volcanic island in the South Pacific near the Tropic of Capricorn. According to the article *Tridacna Clams* by Todd Kunkel, *T. maxima*'s can be found from East Africa to Polynesia. Polynesia is in the central and South Pacific oceans and contains the Hawaiian islands, Tonga, Samoa, and the islands of French Polynesia.

Home Aquaria:

Placing your *T. maxima* in your tank is pretty much the same as placing your *T. crocea*. Pay attention to the color of the clam's mantle and use that as your judge for where your

clam should go. Some *T. maxima*'s will show vivid coloration and others will be showing off the brown color of their **zooxanthellae**. If your clam's color is iridescent, it has adapted to bright lighting and should be placed closer to the top of your tank. If your clam is mainly brown, it should be placed lower in your tank away from strong lighting.

If you have a healthy specimen, it will attach itself to the substrate in less than a day. Keep this in mind when placing your clam in the tank. Make sure you put it where you want it to stay.

According to The Reef Aquarium, *T. maxima*'s are relatively hardy, but they can be delicate. Also, according to The Reef Aquarium, many of the clams found in your local fish stores are still wild caught, but aquacultured clams are becoming available.

Cost:

Store: My local fish store (in Queens, New York) doesn't have any clams at the moment so I have no prices for you.

Online:

US Dollars: I found five US sites selling *Tridacna maximas*. Please note that the \$129.95 3 to 4 inch *T. max* is listed on the site selling it as a "Ultramax Bomber."

Size	First Grade Price	Ultra Price
small (no measurements)	\$26.00 to \$36.00	\$48.00
medium (no measurements)	\$36.00 to \$46.00	\$68.00
large (no measurements)	\$46.00 to \$56.00	\$96.00
1 to 2 inches	\$15.00 to \$20.00	\$35.00
2 to 3 inches	\$25.00	
3 to 4 inches	\$25.00 to \$30.00	\$49.00 to \$129.95
4 to 5 inches	\$35.00 to \$50.00	
5 to 6 inches	\$45.00 to \$50.00	
6 to 7 inches	\$45.00 to \$70.00	

8+ inches

\$120.00

Canadian Dollars: I found three Canadian sites selling *Tridacna maximas*. Please note that the \$139.95 3 to 4 inch T. max is listed on the site selling it as a "fluorescent" so I placed it in the Ultra column.

Size	First Grade Price	Ultra Price
1 to 2 inches	\$45.00 to \$55.00	
2 to 3 inches	\$53.95 to \$75.00	
3 to 4 inches	\$50.95 to \$75.00	\$139.95
4 to 5 inches	\$66.95 to \$110.00	

Photo Credits:

The T. maxima images in this article are the property of Harbor Aquatics (<http://www.harboraquatics.com> (*url dead, 10/02/05*)). Permission for there use here was granted by Gary Meadows. Gary also gave permission for me to direct you to the following page on his site which contains many more T. maxima images as well as a link to a care page. The address is http://www.harboraquatics.com/images/t_maxima/tridacna_maxima.htm (*url dead, 10/02/05*). There are 24 thumbnails on this page, each linking to an even more impressive larger image. This page is more than worth the load time if you want to see the great variety that T. maxima's can show.

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What's Up @ ReefsUK
- <http://www.reefsuk.org> -

By Elizabeth M. Lukan 3/16/00

3/9/00 - ReefsUK will be mentioned in the next issue of PFK. Look for them in the section called Les Holliday's Club Scene. Les will be mentioning the display tank at Scarborough Sea Life Centre and the captive raised livestock database.

With the mention in the upcoming PFK issue, ReefsUK would really like to build up their captive raised livestock database. ReefsUK wants to include any species that has spawned/bred/self propagated (budding) or is being physically propagated. You don't need to trade or sell to be listed in the database, your listing could be informational only.

If you already have a listing in the database, please take this opportunity to make sure it is correct.

3/16/00 - A new article with diagrams has been added that explains how to improve the performance of the Seaclone Skimmer. The article, by Richard Clayton, can be found by following the "Marine Aquariums" and then "Articles" links.

To join the ReefsUK Mailing List, send an email to post@reefsuk.org.

Editor's Comments:

Information in this section covers the latest happenings at Mark T. Taber's ReefsUK Web Site. Mark has given me permission to publish any information from his mailing list that I feel would be of interest to Fish 'N' Chips subscribers. So, the above, although reworded by me, should be credited to Mark or to Derek Scales who works closely with Mark on the running of ReefsUK. The dates in bold coincide with Mark or Derek's mailings and are provided as a reference.

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Caught In The Net

By Elizabeth M. Lukan 3/16/00

[New Articles On #reefs](#)

Steve Richardson's Members' Aquarium Series talk

Eric Borneman's Future Trends and Possibilities in Sustainable Coral Farming

Randy Donowitz and Doug Robbins, The Aquarium as an Educational Tool

Mike King's introduction of The Coalition of Reef Lovers talk

<http://www.reefs.org/library/talklog.html> (*url dead 10/02/05*)

All of the above recent talks have been added to the archives.

Gonipora Success!?! by Rob Toonen

Inland Aquatics Guide to Controlling Aiptasia Anemones by Morgan Lidster
Salinity and Temperature by Craig Bingman and Rob Toonen
Are All Flatworms Bad? by Rob Toonen
Porites and "Christmas Tree Worms" by Rob Toonen
The Great Temperature Debate by Various Authors

<http://www.reefs.org/library/article.html>

All of the above are new articles in the Library.

[This Month's Selection From The Fish 'N' Chips Fishy List](#)

Online Vendors

Books & CDs

- [About Saltwater Aquariums](http://saltaquarium.about.com) - <http://saltaquarium.about.com> (11/1/99)
*Did not list currency or how orders are placed.
"Our Site has been in existence since 1997, formerly known as Miningco.com. It is a FREE informational and NetLinks saltwater aquariums site for marine aquarists of ALL Levels."
- [AquaDirect By AquaLink](http://www.aquadirect.com) - <http://www.aquadirect.com> (12/20/99)
*US Dollars, Phone Orders, Mail Orders, Secure Online Orders. (Listed by ELukan, Fish 'N' Chips)
- [CoralFarms](http://www.coralfarms.com) - <http://www.coralfarms.com> (4/22/99)
*US Dollars, Phone Orders, Books Only.
"We are the largest importer of cultured Solomon Islands SPS and soft corals. Our focus is on captive and cultured livestock."
- [Flying Fish Express](http://www.liveaquaria.com/FFExpress/) - <http://www.liveaquaria.com/FFExpress/> (12/20/99)
*US Dollars, Secure Online Orders, Phone Orders, Fax Orders. Books Only. (Listed by ELukan, Fish 'N' Chips)
- [Harbor Aquatics](http://www.harboraquatics.com) - <http://www.harboraquatics.com> (1/12/99)
*US Dollars, Phone Orders, Fax Orders, Email Orders. Books Only. (Listed by ELukan, Fish 'N' Chips) (*url dead, 10/02/05*)
- [Invert-ual Realities Canada](http://www.interlog.com/~invertca/irc.htm) - <http://www.interlog.com/~invertca/irc.htm> (1/29/99) (*url dead, 10/02/05*)
*Canadian Dollars, Secure Online Order, Mail Orders. Books Only. (Listed by ELukan, Fish 'N' Chips)
- [J&L Aquatics](http://www.jlaquatics.com) - <http://www.jlaquatics.com> (2/1/99)
*Canadian Dollars, Phone Orders. Books Only. (Listed by ELukan, Fish 'N' Chips)
- [Janet's Reef](http://www.janetsreef.com) - <http://www.janetsreef.com> (10/23/99)

- *Books Only. Links to Barnes & Nobles.
- **[Jeff's Exotic Fish](http://www.exoticfish.com)** - **<http://www.exoticfish.com>** (1/12/99)
*US Dollars, Non-Secure Online Ordering, Phone Orders, Email Orders. Books Only. (Listed by ELukan, Fish 'N' Chips)
- **[Jen's Saltwater Haven](http://www.jensalt.com)** - **<http://www.jensalt.com>** (6/24/99)
*US Dollars, Non-Secure Online Ordering, Phone Orders.
"Jen's Saltwater Haven is dedicated to providing the marine/reef hobbies with high quality products at affordable pricing."
- **[Marine Depot](http://www.marinedepot.com)** - **<http://www.marinedepot.com>** (1/12/99)
*US Dollars, Secure Online Ordering, Email Orders (Listed by ELukan, Fish 'N' Chips)
- **[PETsMART.com](http://www.petsmart.com)** - **<http://www.petsmart.com>** (2/12/00)
*US Dollars, Books Only. (Listed by ELukan, Fish 'N' Chips)
- **[Premium Aquatics](http://www.premiумаquatics.com)** - **<http://www.premiумаquatics.com>** (4/20/99)
*US Dollars, Secure Online Ordering, Phone Orders
- **[Reef Fanatic Inc.](http://www.reeffanatic.com)** - **<http://www.reeffanatic.com>** (8/20/99)
*US Dollars, Secure Online Orders. (Listed by ELukan, Fish 'N' Chips)
- **Reefers** - **<http://www.acropora.com>** (1/12/99) (*url dead 10/03/05*)
*US Dollars, Books Only. (Listed by ELukan, Fish 'N' Chips)
- **[SeaMe.com](http://www.seame.com)** - **<http://www.seame.com>** (12/20/99)
*US, UK, Deutschland, and Nederland Dollars, Phone and Secure Online Orders. (Listed by ELukan, Fish 'N' Chips)
- **Simplified ReefKeeping** - **<http://www.connix.com/~reefkeep/>** (12/20/99) (*url dead, 10/02/05*)
*US Dollars, Phone and Mail Orders. Book Only. (Listed by ELukan, Fish 'N' Chips)
- **[That Fish Place / That Pet Place](http://www.thatpetplace.com)** - **<http://www.thatpetplace.com>** (12/20/99)
*US Dollars, Phone Orders, Mail Orders via their catalog, Secure Online Orders. (Listed by ELukan, Fish 'N' Chips)
- **[Thiel Infobase](http://www.athiel.com)** - **<http://www.athiel.com>** (1/12/99)
*US Dollars, Secure Online Ordering. (Listed by ELukan, Fish 'N' Chips)

The above list matches a portion of the site list maintained on the Fish 'N' Chips Website as of the date of this publication. What you see above is what was listed as on their site by the submitter. The date that follows in parenthesis is the date submitted to the list. For the complete up-to-date list, check out the Fish 'N' Chips Website at <http://www.marinefiends.com/> (*updated 8/24/04*).

Site Submission and Updating: To submit your site for inclusion in the Fish 'N' Chips

newsletter and website based Fishy List, please go to the Fish 'N' Chips website at <http://www.marinefiends.com/> (*updated 8/24/04*) and complete the Site Submission Form. Please do **NOT** send any site submission or update requests via email - *I will not process them*. Of course, emails are welcome if you are having trouble submitting the form or if your browser doesn't support forms (AOL for example).

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Chips...er...Tips

What We Want From The Local Fish Store #2

Tip Submitted By Ali Jaffery 11/29/98

Article Written By Elizabeth M. Lukan 2/17/00

The best LFS (Local Fish Store) that I found was Living Sea near Chicago (USA). They would actually refuse to sell me a fish if they thought it was inappropriate for my tank. Best of all, if at the time of purchase you bought in a water sample, they would do a water test and if the water was okay, they would stamp your receipt to be refundable in 7 to 14 days if the fish died.

To Submit Your Tip: Send your tip via email to fishnchips@mail.com with a subject of *Tip-Submission* (information updated 4/26/00: coding replaces need for subject notation) and I'll publish it in an upcoming issue of Fish 'N' Chips. I'll write it up for you or you can do it yourself if you are so inclined. Make sure you let me know if I can include your name and email address or if you'd rather go anonymous.

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Upcoming Events

By Elizabeth M. Lukan 3/20/00

[March 2000](#)

Date and Time: from now until April 1, 2000 on Fishroom.com

Info: "Mystery Contest 6" Sponsored by Tampa Bay Saltwater (<http://www.tbsaltwater.com>)

[com](#)). A random poster in the message board "The Reef" will win 20 pounds of aquacultured Florida Keys rock. Winner pays shipping.

Access: See the Message Board "The Reef" at Fishroom.com (<http://www.fishroom.com> (*url dead 8/24/04*)).

Date and Time: from now until July 1, 2000 on Fishroom.com

Info: "Poll Contest" Sponsored by Aquarium Hardware Supply (<http://www.ahsupply.com>). Answer any poll in the message board "The Cove" and you'll be entered to win \$50 off any power compact order from AH Supply. You may enter once per poll and if you place an order before the contest is over and end up being the winner, you'll receive a refund.

Access: See the Message Board "The Cove" at Fishroom.com (<http://www.fishroom.com> (*url dead 8/24/04*)).

To Submit Your Event: Send your event and all the specifics (date, time, location, pricing, contact info, etc.) via email to fishnchips@mail.com with a subject of *Event Submission* (information updated 4/26/00: coding replaces need for subject notation) and I'll publish it in all issues of Fish 'N' Chips prior to the event.

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What the ... ?

By Elizabeth M. Lukan 3/16/00

Byssus Gland

The structure in clams that produces fibrous threads (byssus) that attach the clam to substrate.

Chitin -ous

A tough protective substance that is the principal component of crustacean shells.

Mantle

Large, pigmented fleshy portion of tridacnid clams that is exposed to the light by gaping of the shell valves. Also called siphonal tissue. Also, the coral tissue in fleshy polyps (e.g. Catalaphyllia).

Sclerites

Part of the skeletal/structural support in soft corals. They are composed of calcium carbonate imbedded in the tissue of most soft corals (octocorallia).

Siphon

The inhalant and exhalant siphons of tridacnid clams are used to allow for gas exchange and to expel wastes.

Tubercles

Wart-like projections on **sclerites**.

Zooxanthellae

These are the tiny plants called dinoflagellates (single-celled microscopic organisms which belong to the Protista kingdom) that live symbiotically with corals, tridacnid clams, and some sponges. They provide food for the host and in return get the nitrogen, phosphorous, and carbon dioxide they need for growth. The scientific name is Symbiodinium spp.

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Prove It!, a Bibliography

By Elizabeth M. Lukan 2/17/00

Article: Critter Corner: Tridacna maxima

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- Encyclopedia.com, <http://www.encyclopedia.com>
- Flying Fish Express, <http://www.liveaquaria.com/FFExpress/>
- Harbor Aquatics, <http://www.harboraquatics.com> (*url dead, 10/02/05*)
- Indo-Pacific Sea Farms, <http://www.ipsf.com>
- Invert-ual Realities Canada, <http://www.interlog.com/~invertea/irc.htm> (*url dead 8/24/04*)
- J&L Aquatics, <http://www.jlaquatics.com>
- Jeff's Exotic Fish, <http://www.exoticfish.com>

- The Reef Aquarium Volume One by J. Charles Delbeek and Julian Sprung, First Printing July 1994, Published by Ricordea Publishing
- The Reef Aquarium Volume Two by Julian Sprung and J. Charles Delbeek, First Printing June 1997, Published by Ricordea Publishing
- Salt Water Connection, <http://www.saltwaterconnection.com>
- The Wave - Eastern PA Reef Club Newsletter Volume #1, Issue #9, July 1998, Tridacna Clams By Todd Kunkel, found on the Eastern PA Reef Club Website, <http://www.epare.com> (*url dead 8/24/04*)

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