

GIANT *TRIDACNA* CLAM - A PERSONAL PERSPECTIVE

by Andy Lamb

My introduction to the giant clam *Tridacna gigas* occurred in 1966 when I was hired for a summer job as a floor boy (or broom jockey) by the Vancouver Aquarium. I had naively anticipated feeding and looking after the creatures in the exhibits but was assigned to clean up the popcorn and spilled soft drinks.

However, all was not lost and attention turned to viewing creatures while cleaning the exhibit windows each morning before opening. Within the tropical section, several tanks had giant clam shells as decor for the colourful tropical fish (photo no. 1). These huge valves were most impressive. But sadly, they were empty. Lifeless*.

Even more spectacular alive, the giant clam is the largest bivalve mollusc. While some discrepancies exist, maximum documented dimensions are a weight of 227 kg. (500 lb.) and a width of 4 ft. (127 cm). This bivalve inhabits the large Indo-Pacific region as part of shallow coral reef areas to a depth 66 ft. (20 m). While there are several species of *Tridacna*, *T. gigas* is distinguished by four vertical folds in each shell as well as its large size.

Like most bivalves, the giant clam is a filter feeder. But it augments its diet by way of food production from

commensal algae known as zooxanthellae. This clam is a hermaphrodite (each specimen containing male and female organs) that reproduces by broadcast spawning. Each individual's sex organs do not ripen at the same time and therefore self-fertilization does not occur.

Legend has it that this species is a "killer." Supposedly victims drown, having been trapped by the "vice-like" grip from these clams. In fact this scenario is bogus, as even if someone did get an appendage



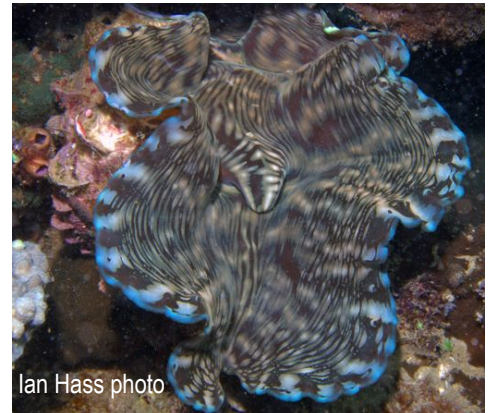
between the two valves, this bivalve does not close quickly or completely. Documented incidents of mortalities do not exist.

My personal encounters with the giant clam came to full fruition during SCUBA diving trips to Indonesia in 2014 and 2016. During in excess of 150 dives in many locales throughout the region, countless specimens were observed and photographed by participants of these adventures. Mantle colourations exhibited by these creatures were varied and stunningly beautiful. A few examples appear in the accompanying photography.

What is very encouraging is that the giant clam is now being cultured. Research begun in the 1980s developed techniques that have resulted in

commercial aquaculture, re-introduction into the natural environment and supplying the aquarium community with artificially produced giant clams.

*Times change and by 1974, when I left the Vancouver Aquarium the giant clam tank "decorations" had been consigned to storage. Upon departure, I asked for one, received it and it now adorns our Thetis Island home (photo no. 2 with almost two year old cousin Sarah Barnreiter enjoying its comforts).



Small living specimens inhabiting a Fiji Reef.