Tridacna noae is back

The giant clam Tridacna noae *was first described by Röding in 1798, distinguishing it from other species based on the characteristic spacing of the scales on the ribs of the shell. In 1947, McLean described it as very similar in general appearance to* T. maxima. *So much so that, over the years, it lost its recognition as a distinct species and came to be identified as a "maxima" clam.*

However, recent evidence based on genetic analyses (Su et al. 2014; Borsa et al. 2014) shows that it is indeed a distinct species. While the shell of the animal provides few clues to reliably distinguish it from *T. maxima*, marked patterns on its mantle give it away. Indeed, *T. noae* clams can be identified by the presence of discrete teardrops on their mantle (see pictures), typically bounded by white margins. These oval patches tend to line the edge of the mantle, but they can also be found more widespread throughout the mantle. Another, albeit more difficult to observe, distinction between the two species is that *T. maxima* always shows a neat row of eyes on the edges of the mantle, whereas these are more spread out in *T. noae.*

Interestingly, reef aquarium enthusiasts have always distinguished *T. noae* from *T. maxima* specifically because of the teardrop-shaped patterns on the mantle, referring to them simply as "teardrop maxima". Due to their distinct features, teardrop maxima are also known to sell for a higher price on the aquarium trade market. Thinking that they were maxima clams, however, has meant that *T. maxima* clams and *T. noae* clams were interbred in hatchery facilities.

Tridacna maxima *(top) and* T. noae. *The latter shows the typical teardrop markings on the mantle, which are absent from* T. maxima *(image: Colette Wabnitz).*

Collaboration between SPC, fisheries departments, and aquarium industry operators throughout the Pacific Islands region, has allowed for the sampling of maxima clams in a wide range of countries. Remarkably, reefs in a few countries appear to be home to greater numbers of *T. noae* than *T. maxima*, while in others *T. noae* are hard to find in the wild. Through a project set up in partnership with researchers at the Institut de Recherche et Développement (IRD) based in Noumea, New Caledonia, these samples were then analysed, with results not only consolidating the recent findings that *T. noae* is a new species, but also providing information as to its distribution range (Fauvelot et al. in prep.). Partners have also worked to promote the spawning of *T. noae* clams only, with at least one successful documented trial.

Tridacna noae *(image: Serge Andréfouët).*

References

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