

**SLNHS Field Visit Report**  
**“Karavan” to Kalpitiya, Sri Lanka**  
**17th to 19th November 2018**

**A Postscript: On some of the interesting shells we saw**

As a supplement to the interesting report by Sri, I am giving in this postscript some information about the shells that we saw.

**Uchchimuni:** There were lots of smashed shells and also small, circular, white ones. As remarked by Sri, the large shells were smashed to extract the meat. These shells, *Chicoreus ramosus* or as commonly called ramosus murex, seem to be targeted now for their meat for export to the Middle East—as related by the boatman Priyankara Thalmeida. Previously, I have found by-catch ramosus smashed for the meat for sale to local Chinese, in Jaffna.

These shells have, for very many years, been targeted by divers in this area for extraction of the operculum (see box). The animals were not killed but the operculum sliced off the living animal using a special tool underwater. Exported to the Middle East the opercula form a constituent of incense. Presumably the mollusc grew a new operculum, but that is not confirmed.

The small white shells proved to be a species of lucine, of the family Lucinidae, not seen by me previously and, so far, not fully identified. There are over 400 species worldwide. The whole family is *chemosymbiotic*, that is, they live symbiotically in a special chemical environment. They occupy habitats that are oxygen poor and high in sulphur compounds - such as mud and



silt with rotting vegetation. They harbour in their gills types of bacteria that can metabolise sulphur compounds to provide energy for the bivalve to survive. The shells we found had probably washed up from the lagoon, not the open sea.

**Battalanguduwa:** We collected two uncommon species from the fishing trash piles on Podigunduwa (Sinnagunduwa). Nelun very cleverly found 3 valves of *Crenocrassatella rostrata* of which I had previously obtained only two weathered specimens, one from off Ratmalana by diving—so they can be considered rare. The other uncommon species that was



Ramosus operculum, used by the animal to block the opening when it retracts inside the shell.

found in plenty was *Anadara antiquata*. I had previously found only one very weathered valve off Kayankerni, south of Passikuda. Getting one complete shell, thanks to Enoka, helped me positively identify this and correct a misidentification of a shell I had found while diving in Trincomalee harbour. So two birds were killed with one stone.



**Kumburuwa villuwa** (Pomparippu river): Sri mentioned the clumps of oysters lifted out of the mud by Priyankara. These were *Magallana belcheri*, one of the commercially harvested oysters that are served up on hotel buffets. The left-hand photo is a clump I collected at Palameenmadu in Batticaloa and the right-hand photo is a single lower valve from Mundal lake, as you would get at a hotel—to be eaten uncooked. (*Crassostrea* is an older name.)



On the 19<sup>th</sup> I went off on my own to visit the Anawasala sites where lagoon molluscs are collected to process into *bella karola* (photo right). It happened to be the off-season for this artisanal industry. Road widening had shifted the scene of operations to the other side of the Anawasala peninsula. We eventually located it and to my great surprise found that the scope of operations had expanded and diversified. Not to feed the local population, I was informed, but to supply bivalve meat to local hotels. Species of bivalves were being harvested from the lagoon that I had no idea existed there. So it

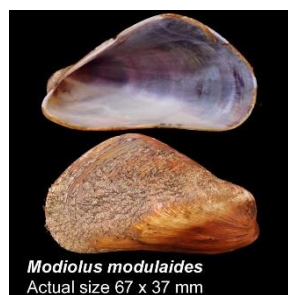


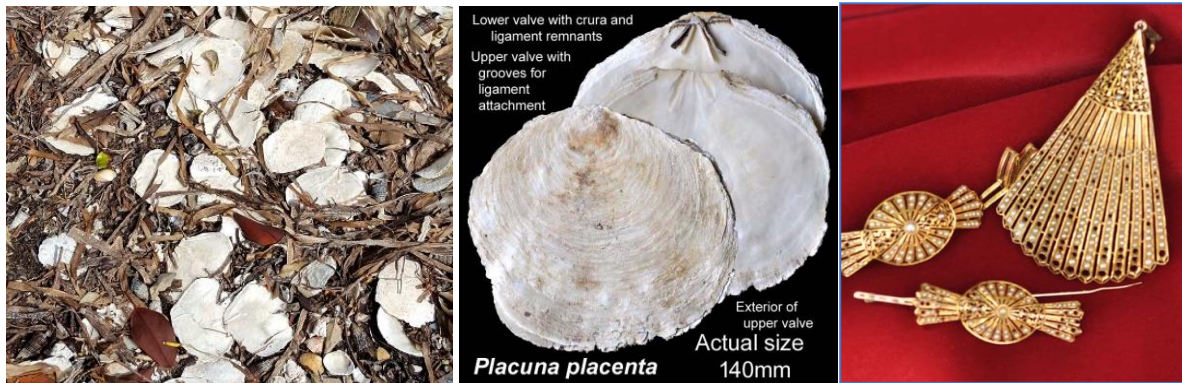
was, for me, a most rewarding excursion, given the fact that Sri Lanka's molluscs are not a popular subject of study for most scientists. We know very, very little of the distribution of our mollusc species and their habitats.



(Left, above) Remains of shells collected for *bella karola* meat. *Marcia recens*, *Gafrarium pectinatum* and the two species *Modiolus moduloides* and *Perna viridis* that I have not come across in the Puttalam lagoon previously.

(Right, above) Remains of pen shells—*Pinna bicolor*—that I have only known from the sea. Meat said to be sold to local hotels. The largest on the pile was 390 mm high. The picture below is of smaller shells from Mount Lavinia.





Windowpane oysters, *Placuna placenta*, were also found in the fishing trash at Battalangunduwa and have been seen by me on the by-catch trash piles both at Anawasala and at Vanathavillu on the eastern shore of the lagoon and elsewhere. They now appear to be harvested for seed pearls, as shown by the pile in the left-hand image.

In the 19<sup>th</sup> century there was a fishery for *Placuna* in Tambalagam Bay, Trincomalee—for seed pearls. A local told me that most shells have some pearls in them and that a matchbox-full sells for Rs. 7,000/-. The picture at right is a set of old seed pearl jewellery—a family heirloom—many having fallen out.

The images of individual shells with captions are from my collection of named shells, built up since the nineteen-seventies.

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