

AN ENDEMIC TASMANIAN COWRIE?

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Cowries are mainly tropical marine gastropod molluscs in the family Cypraeidae, and Tasmania is right at the edge of their range. It's no surprise, therefore, that Tasmania isn't a world centre of cowrie diversity, and a modest five species have been well known to collectors. One of these, the very large *Umbilia hesitata*, is usually a deep-water species and hence rarely washed ashore. The other four belong to the genus *Notocypraea*.

Notocypraea is a group of small (usually 15-35 mm) cowries that extends around the southern half of Australia from south-western WA to central NSW. There are at least seven species. The four well-known Tasmanian species (all also found elsewhere) are as follows:

N. angustata, the commonest, is usually plump and pale brown to purple (pale or beachworn specimens are yellow to orange), sometimes with two to four faint bands. The margins of the shell as viewed from above are densely covered with small very dark brown spots.

N. declivis has the same plump shape as *N. angustata* but rarely exceeds 25 mm long. Very good specimens are usually greyish and lightly covered with tiny pale brown flecks, but the flecks have worn off on most beach specimens. The darker spotting on the flanks is less extensive.

N. piperita is very small, slender and pale with four broken bands of brown or orange blotches. It is mainly found on the north coast and Bass Strait islands.

N. comptoni is an extremely variable species. The typical form is slender, reddish to purple, with four prominent bands. *N. comptoni mayi*, however, looks more like a more banded *N. angustata* with less prominent lateral spots, while *N. comptoni* var. *casta* is almost entirely white.

(If you're thinking I'm leaving one out, you may have come across the tiny "bean cowrie" *Ellatrivia merces*, which actual-

ly isn't a cowrie at all, but belongs to a related group, the Triviidae.)

In the early days of cowrie research, the confusing variations in these southern Australian cowries led to many varieties being named. Over time, many variety names were dismissed as meaningless, while others came to be used for specimens that looked odd in various ways, whether they matched the original description or not. A name in the latter group is *N. subcarnea*, described by Beddome (1896), and initially treated as a variety of *N. angustata*. The name *subcarnea* is often used mistakenly for what turn out to be *N. comptoni* var. *casta* or pale *N. angustata*, but Beddome's careful two-page description is of quite a different creature.

Notocypraea subcarnea (*sensu* Beddome, 1896) has a similar plumpish shape to *N. angustata*, but the spots around the margins are fewer, typically larger and much less distinct. On specimens in very good condition there may be a single indistinct dorsal band, but not the four weak bands of *N. angustata*. Southern specimens are shorter and more globular than *N. angustata*, and are quite strongly callused around the margins. Another difference is in the teeth underneath the shell. Hold the shell upside down with the more rounded end (the posterior) at the top. On an adult *N. angustata*, there will be a sharp toothless straight ridge a few millimetres long at the top end of the inner lip. On *N. subcarnea*, the teeth continue much closer to the end.

Beddome recorded *N. subcarnea* from "Blackman's Bay, Derwent River and Brown's River [Kingston-KB] beaches; Hobart, Harbour, Tasmania (dredged)". It is much more widespread than that, with recent records from Stanley, Douglas River and Marion Bay, but the exact distribution remains to be confirmed.

Suggestions that *N. subcarnea* might be more than a mere variety surfaced recently when leading cowrie expert Felix Lorenz began listing it as a full species on his website (www.cowries.info) on the basis of "consistent conchological features". Furthermore, genetic research reported by the Cowrie Genetic Database Project (<http://www.flmnh.ufl.edu/cowries/>) has suggested that *N. subcarnea* is actually the most genetically distinct of the Tasmanian *Notocypraea* and that its closest relative is *N. hartsmithi*, an extremely rare species that has been found from central NSW to southern Victoria. Lorenz has recently provided remarkable pictures of live-collected *N. subcarnea* on his website (<http://www.cowries.info/travels/Abrotas06/index.html>), and claims that it is rare and apparently endemic to Tasmania.

We shouldn't have to wait long for formal refereed papers confirming *N. subcarnea* as a full species (and hopefully shedding more light on its

full distribution), but cowrie collectors are notorious for not waiting for the formal taxonomy once it becomes widely suspected that a named form is in fact a full species. We can expect increased international interest in Tasmania's modest cowrie fauna, but collectors should beware – most “*subcarnea*” stock offered by online shell dealers is in fact misidentified! (Besides, it's much more fun to walk the beaches and try finding your own, though this author's two recent attempts at Tarooma Beach produced a feeble half a shell!)

Records wanted: I am interested in learning more about the full distribution of *N. subcarnea* in Tasmania based on verified specimens or photos. Please contact me if you have a suspect – I am happy to identify and return specimens or photos at no charge.

REFERENCES

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