

CYPRAEA TAITAE—A SYNONYM OF *C. CRIBRARIA*

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Abstract: Diagnostic shell characters of *Cypraea taitae* are almost the same as those of *Cribrarula fischeri astaryi* and of *Cribrarula cribraria*. It is apparently a sporadic unusual form of *C. cribraria* (an analogue of *C. fischeri astaryi*) and it should be treated as a synonym of the latter. There is no scientific evidence that large dark spots on the shell sides and base, mentioned as one of the main diagnostic characters of this taxon are present in all its shells. Besides, the unusual elevation of the anterior part of the shell reported by Burgess, is found in only several shells of the batch used for the description of this taxon and cannot be used as a diagnostic character of a specific level.

Key words: Mollusca, Gastropoda, Cypraeidae, *Cribrarula cribraria*, *Cypraea taitae*, *Cribrarula fischeri astaryi*, intraspecific variation, taxonomy.

Cypraea taitae Burgess, 1993 was described as a new species, which differs from *C. fischeri astaryi* Schilder (1971) and, in Burgess's opinion, was confused with the latter in the past.

Diagnostic characters (pictures at right) are listed below and can be seen in Table 1:

- size 10-17 mm; —shape—elongate-ovoid;
- extremities-produced; --spire slightly umbilicated;
- labial callus prominent;
- anterior extremity prominent and pointed upwards in two of the five paratypes;
- columellar teeth confined to the aperture;
- labial teeth produced, cross about one third of the lip;
- aperture narrow, curved toward the columellar lip [but in figs. 4, 7 in Burges (1993) the aperture is rather wide in both *C. astaryi* and *C. taitae*];
- fossula vertical, prominently ribbed with six denticles but
- without a sulcus;
- dorsum gold colored with discrete white spots;
- mantle line definite and discrete [but in fig. 1 it is broad, the same as in many shells of *C. cribraria*];
- spire pure white but dorsal pigment may encroach;
- discrete brown to black spots (0.3 x 0.7 mm) confined to the top of the labial callus and not appearing to ascend onto dorsum;
- spots not always visible on lateral margin of labial base;
- columella with similar spots confined almost always to the lateral margins of white base.



Burgess wrote: “The shells of *C. gaskoini* Reeve, 1846, differ from those of *C. taitae* in that they are globose; also, the marginal spots are smaller and in fully adult specimens may cover much of the dorsum of the shell.”

This is not always correct: as can be seen in Heiman (2009b). The profile in the shells of *gaskoini* may be globose, but also low and slightly humped; information on corresponding percentage of such forms is not yet published.

It follows from Table 1 that the difference between *taitae* and *cribraria* consists of two shell characters:

- the presence of larger dark spots on the sides of the shell (as in *C. fischeri astaryi* and similar taxa);
- the anterior extremity in *taitae* may be produced to the point where it is directed upwards. Burgess mentioned that the latter peculiarity was found in only two paratypes of the five studied, hence this is not a character of a specific level. Besides, if *taitae* was in the past treated as *astaryi*, the latter shell character should be found in shell of *astaryi* but there seems to be no such reports.

The presence of relatively large dark spots on the sides of the shell remains the only shell character distinguishing *taitae* from *cribraria*. It should be noted that the same shell character distinguish *fischeri astaryi* from *cribraria* (see the previous article in this issue of Triton pp. 11-13).

Distribution of *taitae* according to Burgess: American Samoa, Western Samoa, Fiji, New Hebrides.

Table 1 Diagnostic characters of *C. taitae* and *C. cribraria*

shell characters		<i>cribraria</i>	<i>taita</i>
shape	elongate-elliptical to elliptical	V	V
profile	low, slightly convex or humped	v-V	V
right side	callused, edged	V	V
	adorned with small and larger dark spots	-	V
spire	depressed, pure white but dorsal pigment may encroach	V	V
dor.color	golden	V	V
dorsal line	indistinct, broad or confused	V	V
lateral spots	numerous blackish spots along both margins	V	V
	discrete brown to black spots (0.3 x 0.7 mm)	-	V
	lateral part of the left side of the base spotted as the right side	v	V
	spots not always visible on lateral margin of labial base	v	V
base	convex, white	V	V
aperture curved towards the columellar leep		V	V
labial teeth	produced to cross about one third the lip	V	V
colum. teeth	confined to the aperture	V	V
“the anterior extremity is produced to the point where it is directed upward”		-	V
extremities produced		V	V
size		22 average	9.8-17

Notes:

- The shell characters given in the original description are written in bold letters.
- The presence of a character in **all** shells of the taxon is designated by the sign ‘V’.
- The partly presence of a character is designated by the sign ‘v’.

It is not accidentally that the taxonomic identity of *astaryi* and *taita* is still confusing. Comparing characters of large batches of shells and singling out the main diagnostic characters did not precede the description of these taxa. Students of cowries accepted Burgess’s description of *taita* for granted. There seems to be no report (except the original description) covering a study of variation in the shells of *taita* so its specific and even subspecific rank is not evident.

Currently, my conclusion is: *taita* is a sporadic unusual form of *C. cribraria* and it should be treated as a synonym of the latter like *C. fischeri astaryi*.

Acknowledgements

I would like to thank Mr. Henk K. Mienis for reading and correcting the first draft of this article.

Literature

- Burges, C.M. 1993. A new species of *Cypraea* from Samoa in the *C. cribraria* complex. *The Veliger* 36(2):174-177.
- Heiman, E.L. 2009a *Cribraria fischeri* Vayssiere, 1910, a synonym of *Cribrarula cribraria* (Linnaeus, 1758); its nomenclatural history and a comparative study of shell characters. *Triton* 20 Supplement 1.
- 2009b *Cribrarula gaskoini* (Reeve, 1846) an interesting form, which can perhaps be treated as a subspecies of *C. cribraria* (Linnaeus, 1758). *Triton* 20 Supplement 2.
2010. A “Five-Criteria-Approach” (FCA) in taxonomy of Cypraeidae. *Triton* 21:10.
- Lorenz, F. Jr. 1995. News about a poorly known cowry: *Cribrarula taitae* (Burgess, 1993). *World Shells* 15:78-79.
2004. On the proper use of the names *fischeri* Vayssiere and *taita* Burgess. A note on <http://cowries.info/shell/taita/taita.html>.
- Lorenz F. & Hubert, A. 2000. A Guide to worldwide Cowries. 584 pp. ConchBooks Hackenheim Germany.

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