

whorl is smooth as well. The early whorls are entirely ribbed in both species.

*Vexillum melongena* (Lamarck, 1811), also frequently mistaken for *V. utravis* because of a basic similarity in color and markings, is a coarser, heavier species with correspondingly coarser sculpture throughout. The shoulders are angulated in *V. melongena*, rounded in *V. utravis*; the sides in *V. melongena* are straight, rounded in *V. utravis*; and finally, the canal is much more recurved and attenuated in *V. utravis* than in either of the other species.

Since the collecting locality of the holotype was unknown and therefore not indicated by Melvill in describing the species, the type locality of *Vexillum utravis* (Melvill, 1925) is hereby designated as Carigara Bay, Philippine Islands (11°35' N. Lat., 124°40' E. Long.).

### Acknowledgment

The accompanying map of the type locality area was provided through the courtesy of Mr. Dayrit, whom I wish to thank further for his unfailing helpfulness and generosity. My deep appreciation goes also to Dr. Rudolf Stohler, Dr. Myra Keen, and others who helped untangle the unusual problem in nomenclature involved with this species. The photograph is by Pierson, Oswald and Pierson.

### Literature Cited

- Melvill, James Cosmo  
1925. Descriptions of nine new species of Mitridae. Proc. Mal. Soc. Lond., Vol. 16, p. 218, Pl. 10, figs. 8, 8a.

## Description of a New Hawaiian Subspecies of *Cypraea tigris* (LINNAEUS, 1758)

by

CRAWFORD N. CATE

Conchological Club of Southern California, Los Angeles 7, California

(Plate 19)

Since the publication of my article, "Redescription of *Cypraea tigris lyncichroa* Melvill, 1888" in the January 1, 1961 *Veliger*, it has come to my attention through the kindness of Dr. F. A. Schilder that the use of this name is invalid as applied to the Hawaiian subspecies. The type of *C. tigris lyncichroa* was mentioned by Hugh C. Fulton in an article in the *Journal of Conchology*, 1929, as follows:

"*Cypraea tigris* var. *lyncichroa* Melvill.  
Type. Long. 80. Diam. 58 mm.

Note — this is simply a small heavy broad shell with markings having some slight resemblance to *C. lynx*. The type has a small patch of pale golden brown colour on its dorsum, a character that occurs occasionally in many varieties of the species."

Unfortunately, I overlooked this reference in preparing the above-mentioned article. It had been my hope to avoid complicating the literature with additional names applied to an established species, but according to Dr. Schilder's letter (February 1961), the somewhat sketchy article by Fulton constitutes a valid redescription of Melvill's holotype. This species differs from the Hawaiian race in several ways; therefore my application of the name *lyncichroa* to the Hawaiian subspecies makes it a stillborn homonym, necessitating the emendation of my former article and the renaming of the subspecies as it occurs in the Hawaiian Islands.

Dr. Schilder's letter states:

"I have seen, before the World War II, Mel-



vill's holotype in the collection of the late J. R. le Brockton Tomlin, a very good friend of mine; it is only 80 mm. long, callous, more fulvous than white, with small dorsal spots and the marginal callus reaching far up; such heavy shells seem to occur chiefly in the smallest islands of Micronesia and Southern Polynesia, therefore I

used the name lyncichroa for designation of the Pacific race."

This more extensive description of the holotype by Dr. Schilder points out that the most obvious differences between the typical Cypraea tigris lyncichroa and the Hawaiian race are as follows:

#### Comparison Between Two Subspecies of *Cypraea tigris* LINNAEUS, 1758

	<i>Cypraea tigris lyncichroa</i>	<i>Cypraea tigris schilderiana</i>
1. Size:	80 mm. long, 58 mm. wide	126 mm. long, 87.7 mm. wide
2. Marginal Callus:	heavy, reaching far up	lacking
3. Color:	more fulvous than white	more white than fulvous
4. Weight:	heavy, small shell	relatively light, large shell

#### Genus: *Cypraea* LINNAEUS, 1758

Subgenus: *Cypraea* LINNAEUS, 1758

Species: *tigris* LINNAEUS, 1758

*Cypraea tigris schilderiana* CATE, subsp. nov.

Shell large, heavy, pyriformly ovate, acutely humped dorsally, bulbously inflated, posteriorly umbilicate; margins not obviously thickened, sides a continuous symmetrical curve from dorsum to base; extremities somewhat produced; base and lip sloping inward to denticles; aperture wide, straight, curving sharply left posteriorly; neither labial nor columellar teeth extend onto base. Labial teeth strong, wide, flattened, short; interstices deeply channeled, rounded; columellar teeth longer, finer, thickening pointedly on columellar ridge and extending unbroken across fossula; fossula broad, increasingly concave anteriorly; terminal ridges hardly oblique; primary shell surface white or light beige, thickly covered with brownish-black spots which are superimposed upon larger blue spots formed in an earlier stage of development; base and teeth pure white; an orange-brown mantle line traverses the length of the right dorsum.

*Cypraea tigris schilderiana* (Plate 19, figs. 1 and 2) differs morphologically from *C. tigris tigris* Linnaeus, 1758, by its larger size and heavier shell, its larger and stronger teeth, its wider and straighter aperture, its broader and deeper fossula, and the almost total absence of

lateral thickening or marginal callus. *C. tigris lyncichroa* Melvill, 1888, of the central Pacific is a smaller, more stunted, more heavily calloused form.

Morphological variation among the paratypes of *Cypraea tigris schilderiana* is negligible. Except for a variation in size, the diagnostic characters mentioned in the description of the holotype hold reasonably true among all eleven specimens included in this study.

The type locality here designated for *Cypraea tigris schilderiana* is Koko Head, Oahu, Hawaii (21°15' N. Lat., 157°43' W. Long.) with a probable range extending throughout the entire chain of eight Hawaiian Islands.

The holotype has been deposited in the type collection of the Bernice P. Bishop Museum, Honolulu, Hawaii, where it bears the catalog number 212'885. Paratypes will be distributed as follows:

Paratype No. 2, U. S. National Museum, Washington, D. C.

Paratype No. 4, Collection of Dr. F. A. Schilder, Halle, Germany

Paratype No. 5, British Museum (Natural History), London, England

Paratype No. 7, Museum of Comparative Zoology, Cambridge, Massachusetts

Paratypes No. 1, 3, 6, 7, 8, and 10 are at present in the author's collection.



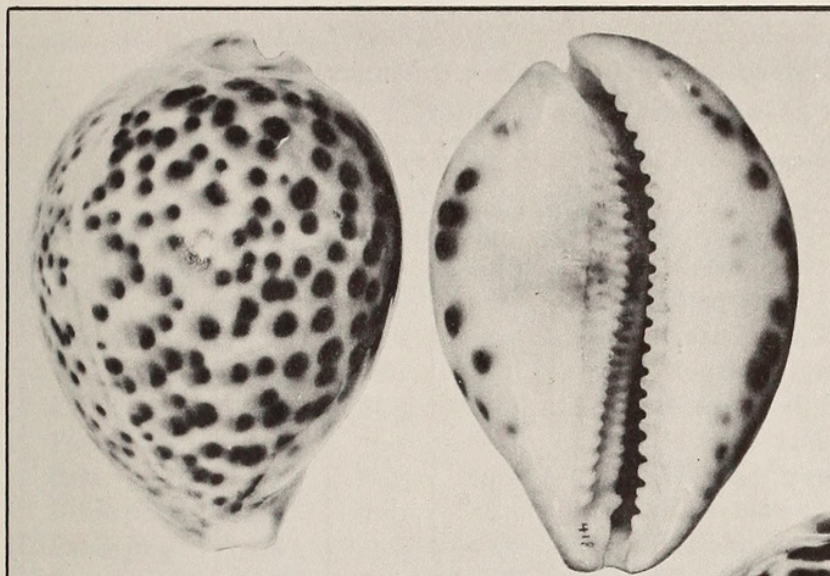


Figure 1

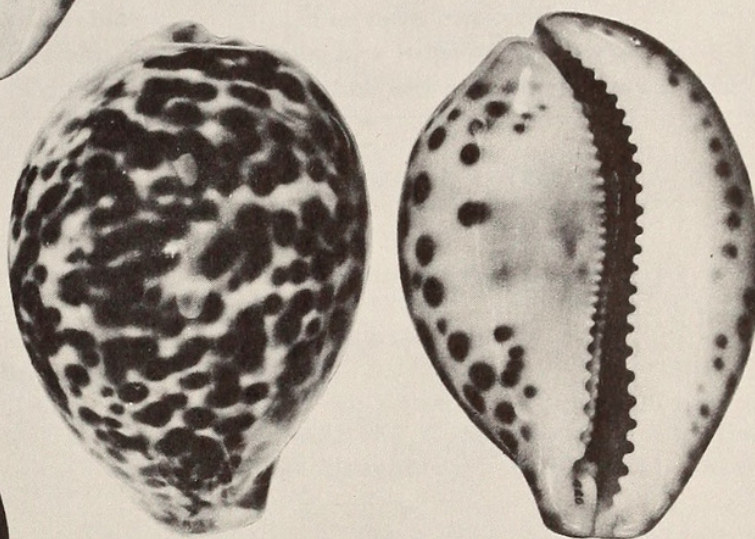


Figure 2

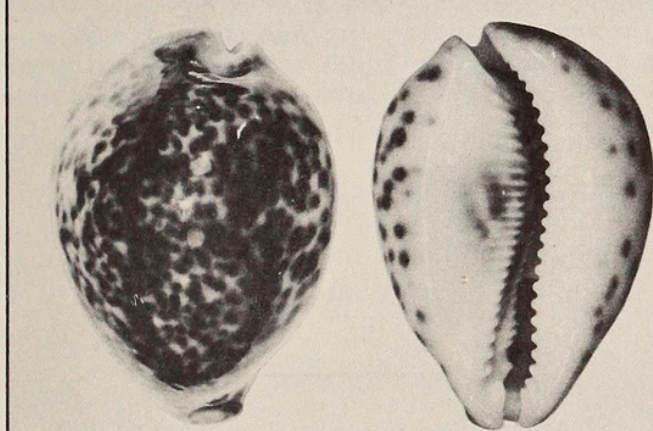


Figure 3

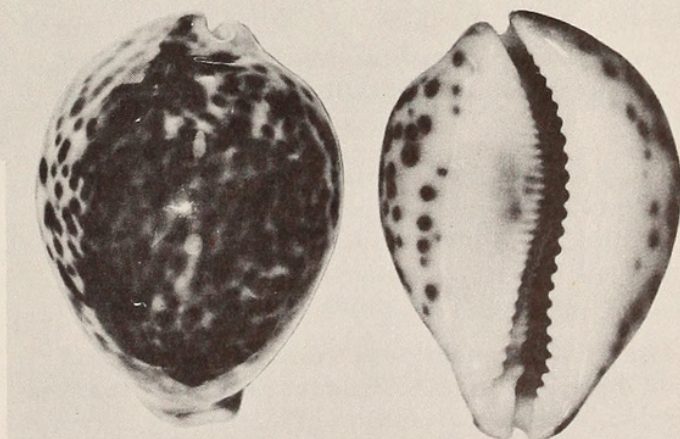


Figure 4

Dorsal and Ventral Aspects of  
*Cypraea tigris schilderiana* CATE, new subspecies,  
and *Cypraea tigris* LINNAEUS, 1758

Figure 1: Holotype, *Cypraea tigris schilderiana*  
Figure 2: Paratype No. 3, *Cypraea tigris schilderiana*  
Figures 3 and 4: Typical *Cypraea tigris*



Cate, Crawford Neill. 1961. "Description of a new Hawaiian subspecies of *Cypraea tigris* Linnaeus, 1758." *The veliger* 3, 107–109.

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