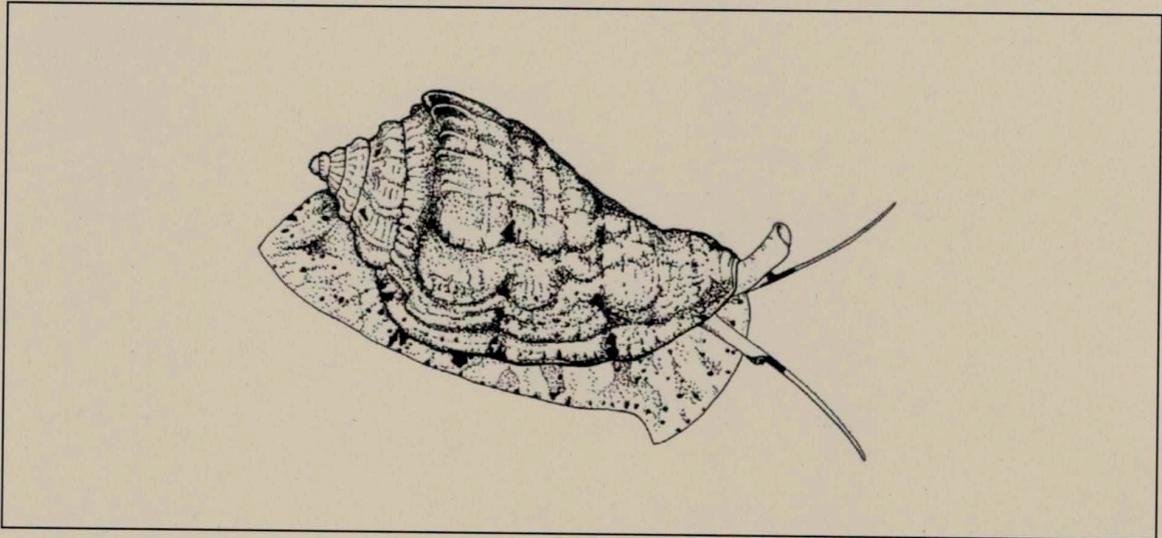


Schriften zur Malakozoologie

aus dem Haus der Natur - Cismar

Heft 26



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A new species of *Zoila* from SW Australia (Gastropoda: Cypraeidae).

by

FELIX LORENZ, Buseck-Beuern.

Abstract: *Zoila raywalkeri* n. sp. from SW Australia is described and compared with *Zoila rosselli* (Cotton, 1948) from the same area. It differs by a more depressed, shorter shell with orange base and margins and a white dorsum with lemon yellow transverse banding.

Zusammenfassung: *Zoila raywalkeri* n. sp. aus dem Südwesten Australiens wird beschrieben und mit *Zoila rosselli* (COTTON 1948) aus derselben Gegend verglichen. Die neue Art unterscheidet sich durch ein abgeflachteres, kürzeres Gehäuse, Basis und Ränder sind orangerot, der Rücken weiß mit zitronengelben Querbändern.

Introduction: The genus *Zoila* is the most comprehensively studied genus of cowries, and has always been in the focus of attention for scientists, shell-dealers and of course, collectors. No other genus of seashells has been subject to so many debates between those three groups of people.

The great commercial value of certain *Zoila*-shells has inspired RAY WALKER, well known Australian shell-dealer, to search for them with an ROV (remote operated vehicle) specially equipped for spotting and collecting shells in deep water. In the past years, Ray has brought a considerable number of outstanding specimens to light. One of them belongs to an undescribed species which is named in honour of the finder.

Zoila raywalkeri n. sp.

Material: Holotype: 49,7 x 33,2 x 25,7 (24 labral, 20 columellar teeth); coll. Western Australian Museum WAM S80901. Photographs of a second specimen whose dimensions and whereabouts are unknown were studied.

Description: The holotype is a very fresh dead specimen retaining the glossy enamel and fresh colours. There is a hole of 4 mm diameter obviously originating from a predatory attack above the labral margin and a chip in the basal nacre on the opposite side of the shell.

Medium sized, evenly pyriform, dorsum very slightly humped in the posterior third. The margins are slightly calloused and form angular flanges on both sides of the barely rostrated, sharply margined extremities. The spire is slightly projecting, visible as a small, callus-covered bulge on the right side above the posterior extremity. The aperture is equally narrow and straight throughout, the posterior canal is curving slightly to the left. There is a smooth, somewhat projecting fossular margin along the anterior third of the columella. The teeth are well produced, densely spaced, extending onto the labrum but restricted to the apertural edge on columellar side. Base and labrum are slightly convex and calloused.

The ground colour of the dorsum and the interior is porcellaine white. The basal and marginal callousities are rich orange-red, slightly paler cream to orange along the edges. The teeth are darker red with contrasting cream interstices. The dorsum is covered with three transverse zones of lemon-yellow. There are three paler and narrow transverse bands above the orange-red posterior callousity of the extremity, across the highest part of the dorsum and in the anterior third.

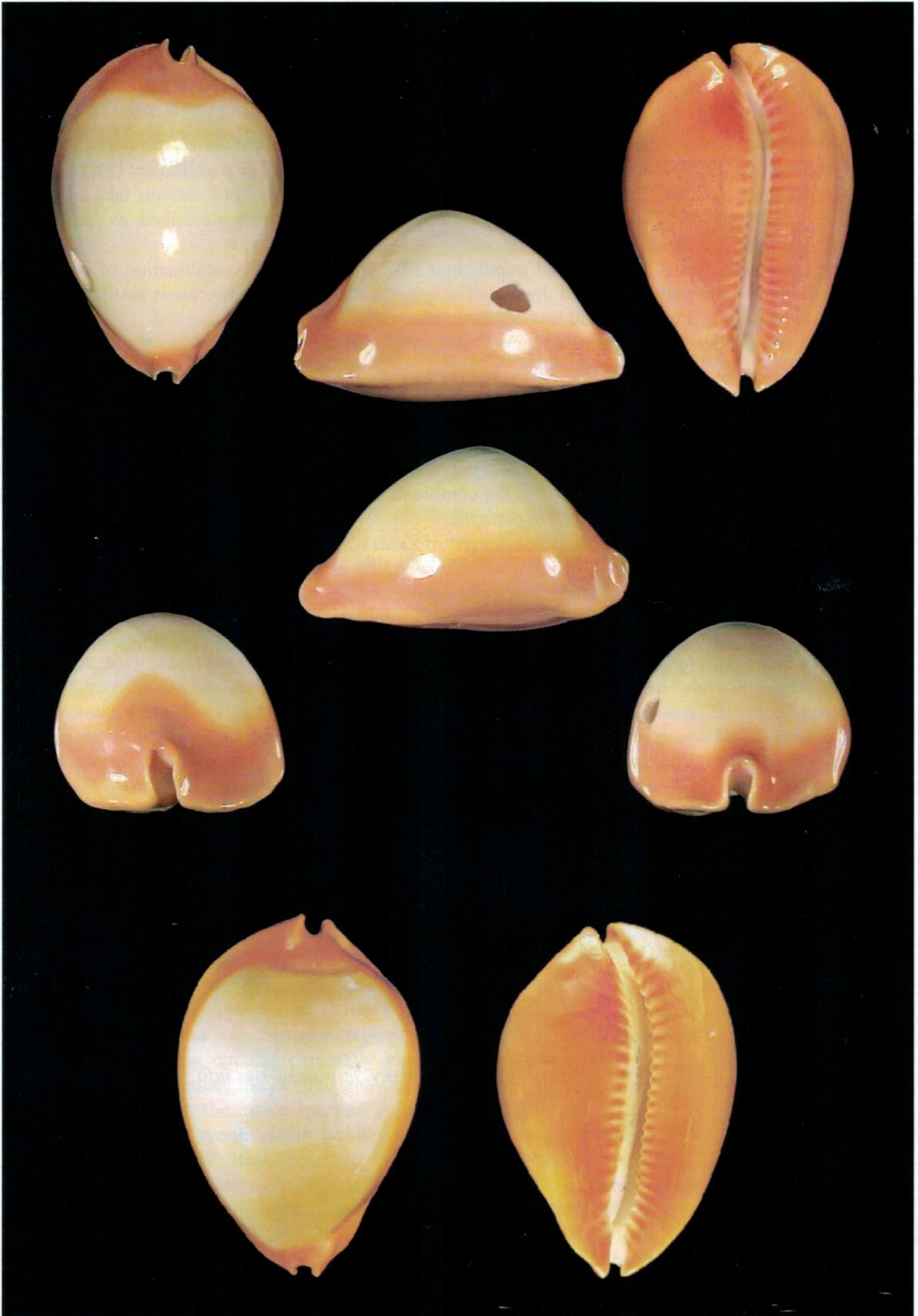
The second known specimen very closely resembles the holotype in all conchological features.

Explanations of Plate 3:

Zoila raywalkeri n. sp.

Rows 1-3: Holotype (50 mm)

Row 4: Size unknown, Southeast of Albany.
Photo courtesy KIM BACK and HUGH MORRISON,
from WILSON & CLARKSON (2004)



LORENZ, F. : A new species of *Zoila* from SW Australia.

Habitat and distribution: The locus typicus of *Zoila raywalkeri* n. sp. is west of Cape Mentelle, south of Canal Rocks, SW Australia (33°48'S 114°32'E). It was found at 152 m, on a sand and rubble bottom. The second known specimen was said to come from unknown depth off the southeast of Albany.

Etymology: Named in honour of RAY WALKER who collected the holotype with a remote controlled vehicle (ROV).

Discussion: The new species described herein had been known from the above mentioned shell for many years (BOARD, 1979) and was usually discussed as a peculiar form of *Z. rosselli* (see LORENZ 2001, WILSON & CLARKSON 2004). That specimen may have been the inspiration for a famous fake created by re-painting specimens of *Z. rosselli latistoma* Lorenz 2002, which were described as "*albolutea*" Raybaudi 1994 and "*lobettiana*" RAYBAUDI 1995.

Zoila raywalkeri n. sp. differs from all populations of *Z. rosselli* by the combination of orange-red callousities and a lemon-yellow, banded dorsum. The general shape of these species is similar, although *Z. raywalkeri* n. sp. is less rostrated and less distinctly humped dorsally.

Within the populations of most *Zoila* species, occasional aberrant specimens occur that lack the dark colour-elements in their pigmentation. Such "golden forms" are also known for *Zoila rosselli satiata* LORENZ 2002 from the northern distribution limit of the species and were described as "*edingeri*" RAYBAUDI 1990. The name has no taxonomic validity as according to reference 1.3.2 of Art. 17.3 of the ICZN: a name is excluded from validity if it was explicitly based on an abnormal feature of individual specimens. All those "gold" forms of *Zoila* retain the characteristic pattern-distribution of their respective populations, whereas in *Z. raywalkeri* n. sp. the combination of pattern is unique in the genus and not found within any population of *Z. rosselli* in particular.

Just 300 m away from the site where the holotype of *Zoila raywalkeri* n. sp. was collected, an eroded, yet typical dark pigmented specimen of *Zoila rosselli rosselli* was found. This indicates that the striking features of the new species are not merely a result of ecological adaptation to a deeper water habitat.

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