

Conchylia

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Correction to Conchylia 50

In the article of HUGH MORRISON & BEN SCHNEIDER (2019): Description of Two New Species of the Genus *Bothriembryon* (Gastropoda, Pulmonata: Bothriembryontidae) from the Fitzgerald River National Park in the South Coast of Western Australia (Conchylia, 50: 129-142) erroneously on Plate 4 the Figures 4a and 4b displayed the Holotype of *Bothriembryon* (*B.*) *diversicolor* n. sp., already figured on Plate 3, Figures 3a and 3b, instead the Paratype 5, as mentioned in the captions. Opposite we show the correct Figures of that Paratype 5.



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A New Species of *Austroharpa* (Gastropoda: Harpidae)

By FELIX LORENZ, D-Buseck-Beuern

With 1 Map, 1 Text-Figure and 17 Figures on Plates 1-4

Keywords

Harpidae, *Austroharpa*, new species, Southwestern Australia.

Abstract

Austroharpa mikeharti n. sp. differs from *A. punctata* by its smaller and less obese shell, a larger protoconch relative to the length of the shell, the presence of spiral striae, and the lack of the characteristic colour pattern of *A. punctata*.

Zusammenfassung

Austroharpa mikeharti n. sp. unterscheidet sich von *A. punctata* durch ein kleineres, schlankeres Gehäuse, das Vorhandensein von Spiralfurchen, einen relativ zur Gehäuselänge größeren Protoconch und das Fehlen der für *A. punctata* charakteristischen Musterung.

Abbreviations and Acronyms

FL Collection FELIX LORENZ
MH Collection MIKE HART
MSF Molluscan Science Foundation, Inc.,
Dr. MICHAEL A. MONT,
Owings Mills, MD, USA
WAM Western Australian Museum,
Perth, Western Australia

W/L = Width to length ratio in %

PDL = relation between the width of the protoconch and the shell's adult length (in %)

Introduction

The species described herein is only known from the stomach contents of fish caught offshore Albany, in Southwest Australia. Usually, only partly digested specimens lacking important conchological features were found and tentatively identified as a small variation of *Austroharpa punctata* (VERCO, 1896) found in the same general area, but in shallower water. Due to the efforts of Dr. MIKE HART, a series of well-preserved specimens was assembled over a period of several years, and with two additional shells from the author's collection, sufficient material was now available to formally describe the new species.

Systematics

Family Harpidae BRONN, 1849

Genus *Austroharpa* FINLAY, 1931

Austroharpa mikeharti n. sp.

Pl. 1, Figs 1-4, Pl. 2, Fig. 5

Material

Measurements listed length × width × height [diameter of the protoconch] in mm, depository.

Holotype: 20.2 × 13.1 × 10.0 [2.0], coll. WAM; **Paratype 1:** 23.3 × 14.1 × 11.0 [2.3], MH; **Paratype 2:** 23.5 × 14.9 × 12.0 [2.2], **Paratype 3:** 22.5 × 14.0 × 10.8 [2.2], **Paratype 4:** 21.3 × 13.0 × 10.4 [2.1], **Paratype 5:** 21.1 × 13.7 × 10.4 [2.0], all FL; **Paratype 6:** 21.4 × 13.3 × 10.2 [2.1], coll. MSF hp1477; **Paratype 7:** 18.9* × 13.1 × 10.0 [2.1], coll. MSF hp1478; *: broken anterior.

Description

The shell is small for the genus, moderately lightweight and semi-transparent. The paucispiral protoconch is rather large, consisting of 1.3 whorls. Its surface is microscopically granulose, dome-shaped, and protruding. A transitional line between the protoconch and the first smooth teleoconch whorl is barely recognizable. The spire is slightly elevated, with three slightly inflated, postnuclear whorls with a rounded shoulder and a deep suture. There are barely discernible, variably spaced longitudinal varices on the spire. The body whorl is slightly inflated and ventricose. The varices are present, but only as irregular, variably wavy on the surface. At the shoulder and towards the suture, they form slightly more distinct riblets. The body whorl shows shallow, yet distinct transverse striae forming flat plateaus of approximately 0.5 mm width. They are becoming more regular and deeper in the anterior half and are well-visible around the extremity. The labrum is rather broad and slightly thickened, with its edge angular. The posterior canal is shallow and enhanced by the pointed tip of the labrum and a process of the parietal shield. The latter is rather weakly developed, forming a shallow ridge along the aperture. The anterior canal is deep, with a

produced, upturned siphonal fasciole. The aperture is wide, evenly arcuate labrally, and rather straight on the columellar side. The ground colour of the holotype is greenish-yellow, with two indistinct and narrow pink transverse bands across the body whorl and continuing onto the labrum. The labrum shows fine transverse hairlines of brown colour. These lines are correlated with the transverse striae. On the shoulder of the body whorl, there are four square pale- brown patches. The inner aperture is yellow labrally, the columellar shield and the siphonal fasciole are paler yellow to white.

The longitudinal varices are variable in strength, number, and density in the paratypes. Single varices may be slightly developed and more defined, especially on the shoulder. However, they never form scaly processes. The margin of the varices may be ornamented with discrete brown dots, which are correlated to the transverse striae. These are always well-discernible anteriorly, but may be obsolete mid-dorsally. The paratypes also show a certain variability in the ground colour and that of the protoconch, ranging from bright orange to lemon-yellow. The two transverse bands may be barely developed. The square brown blotches on the shoulder are present in all shells. The fine brown lines on the labrum may branch and form dotted patches positioned in the area where the transverse bands extend onto the labrum. The animal characteristics are unrecorded.

Type Locality and Habitat

Austroharpa mikeharti n. sp. is only known from the guts of the fish *Nemadactylus valenciennesi* (WHITLEY, 1937), called Blue Morwong or Queen Snapper, caught at 60 to 80 metres, approximately 50 kilometres off the southeast of Albany, Southwestern Australia.

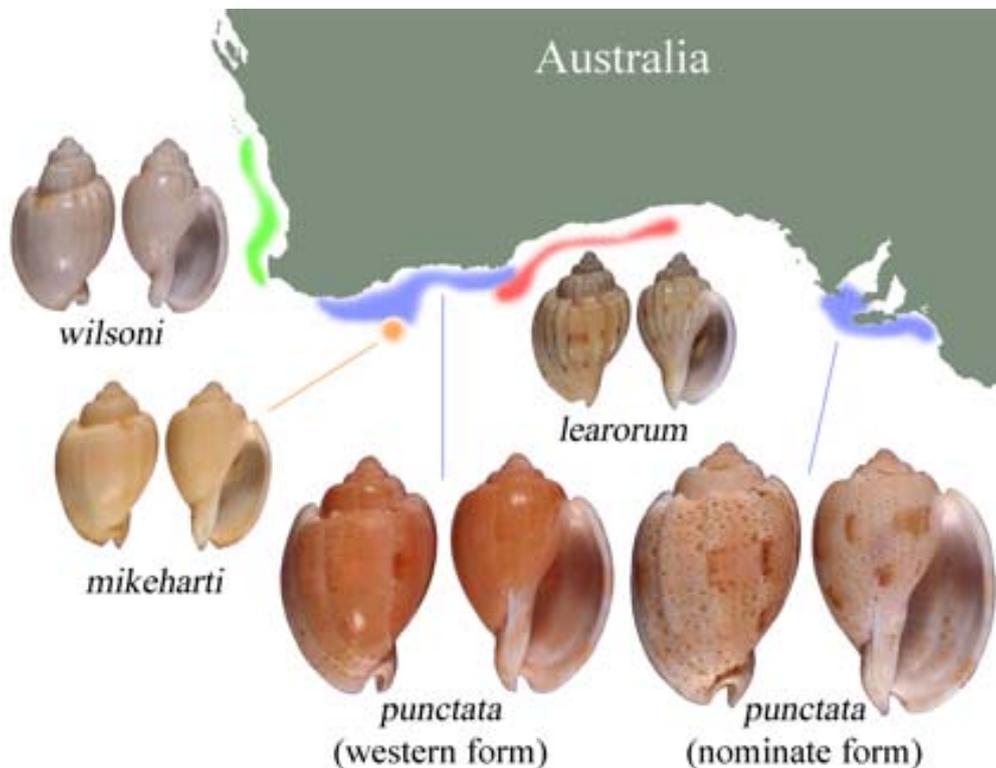
Etymology

Named in honour of my friend Dr. MIKE HART of Wellington, New Zealand, who supplied most of the type materials.

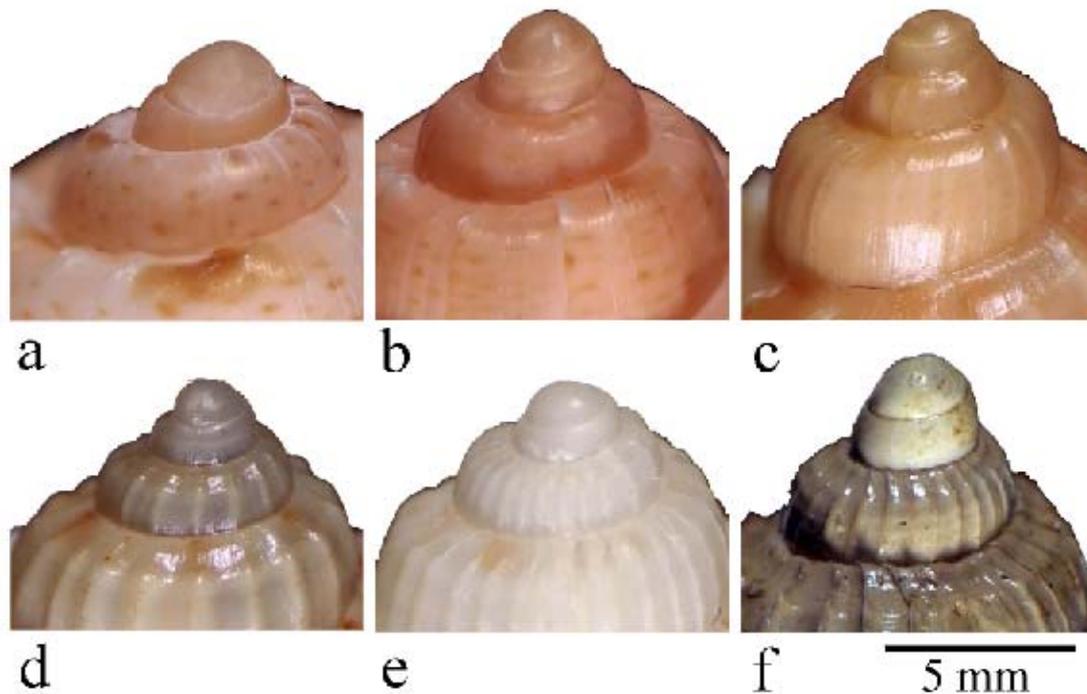
Discussion

The genus *Austroharpa* is endemic to the southern half of Australia. There are about one dozen fossil species from the Miocene to the Pliocene, and currently, five living species are recognized. *A. mikeharti* n. sp. represents another species that has been mis-interpreted as a variety of the comparatively common and widespread *A. punctata*.

The only species that superficially resembles *A. mikeharti* n. sp. are *A. punctata* (VERCO, 1896), and, on account of their similar small size, *A. wilsoni* REHDER, 1973, and *A. learorum* HART & LIMPUS, 1998. Map 1 shows their distributions. *Austroharpa punctata* is a widespread species of the upper sublittoral zone with a range stretching from the Albany area in South Australia, across



Map 1: Distributions of four living species of *Austroharpa*. Explanations in the text.



Text-Fig. 1: Comparison of protoconchs. **a:** *A. punctata*, South Australian form; **b:** *A. punctata*, western form; **c:** *A. mikeharti*; **d:** *A. learorum*; **e:** *A. wilsoni*; **f:** *A. pulligera*.

the Bight, to Cape Jaffa in South Australia. The type locality is Encounter Bay near Victor Harbour in South Australia. The specimens available to collectors and researchers originate from three sources: divers operating at 20 to 35 metres, either out of Port Lincoln in South Australia, or Esperance in Southwestern Australia. It is correct to mention that probably 90 % of all specimens have been collected by the late PETER CLARKSON. Specimens were also recovered from the guts of fish caught in deeper water at 60 to 80 metres, off Esperance and also off Albany in Southwestern Australia. However, whether *A. mikeharti* n. sp. and *A. punctata* occur sympatrically cannot be said. Shells of *A. punctata* from areas along the Great Australian Bight could not be studied and do not seem to exist.

The nominate South Australian population differs from shells from Esperance in being larger (37 to 40 mm and W/L = 69), while shells of the Esperance population are smaller on average (27 to 32 mm), somewhat narrower (W/L = 67) and more transparent. The PDL (relation between the width of the protoconches and the shell's adult length in %) is nearly the same in both populations, 7.8 to 8.2 in South Australian shells, and 7.6 to 8.7 in shells from the Esperance area.

Austroharpa mikeharti n. sp. differs from *A. punctata* by adult specimens being consistently smaller and narrower (W/L = 63). The PDL ranges from 9.6 to 9.9, which indicates that the protoconch of *A. mikeharti* n. sp. is larger in relation to the adult shell's length. The dorsal striae forming flat plateaus in *A. mikeharti* n. sp. are completely absent in *A. punctata*, whose surface shows a silky gloss and only longitudinally oriented microscopic growth lines. The varices of *A. mikeharti* n. sp. are broader, but they are wavy and not as well-defined as in *A. punctata*, in which they tend to form pointed scaly processes along the shoulder, a feature that is absent in *A. mikeharti* n. sp. The two faint darker transverse bands in *A. mikeharti* n. sp. are not found in *A. punctata*, where they may occasionally be replaced by a solid darker middorsal band. Finally, *A. mikeharti* n. sp. lacks the fine darker spotting of the shell characterizing *A. punctata*.

The rare *Austroharpa wilsoni* is found in an area west of that of *A. mikeharti* n. sp., namely from Cape Leeuwin to Dongara, at depths ranging from 140 to 250 metres. It is a nearly transparent shell with numerous narrow varices, which are scaly along the shoulder, not comparable to the rounded, more distant and irregular varices of

A. mikeharti n. sp. The ground colour is pellucid white, but there may be fine brown spots covering the shell, and the sutural ramps show square shaped brown blotches. *A. wilsoni* also lacks transverse striae.

Austroharpa learorum was previously known from two shells, the type materials, dredged in the central Great Australian Bight at 140 metres. Two additional specimens have recently been found with the help of a remotely operated vehicle (ROV) at 90 metres in an area east of Esperance. Compared with the other three species discussed herein, the shell of *A. learorum* is more solid, with a pronounced, angular shoulder of the body whorl. The varices are rounded and narrowly spaced. The body whorl shows three interrupted reddish bands on the suture, and in the midsection. There are numerous indistinct brown zig-zag lines in the interstices of the varices, which are ornamented with discrete brown dots. Also *A. learorum* lacks transverse striae.

The rather uniform bright orange to lemon-yellow colour of the shell sets *A. mikeharti* n. sp. apart from all its congeners.

In his 1973 revision of the genus *Austroharpa*, REHDER suggested the subdivision of the genus in *Austroharpa* s. str. and the subgenus *Palamharpa* IREDALE, 1931, to which he accounted for all living members known at the time. The genus *Austroharpa* FINLAY, 1931 was first based on the Miocene fossil *A. pulligera* (TATE, 1889) from Victoria, which has a projecting, slightly inflated protoconch (Text-Fig. 1). REHDER stated that in *A. pulligera*, the protoconch is larger, bulbous, and tilted, whereas, the protoconchs of the living members he assigns to *Palamharpa*, have “a dome-shaped nucleus with the suture marking the earliest whorl being horizontal.” However, comparison of this feature in the fossil with the protoconchs encountered in the living species abrogates this concept in my opinion, which is shared by most authors, including the editorial board of WoRMS. Therefore, all living species,

including the new one introduced herein are assigned to *Austroharpa*.

When MIKE HART and I first met in Cape Town I was 16 years old. Two years later, in 1985, the first species of cowry I described was the South African endemic *Cypraeovula mikeharti* n. sp. It was at a time when being a “splitter” was regarded as a disgrace in certain taxonomic circles, and the cowry scene in particular. Naming this new *Austroharpa* in MIKE’s honour marks 35 years of my own taxonomic work. Comparing the worlds of now and then, it is amazing how much progress in our understanding of biodiversity has been made. At the same time, it is sad to realize that the first *mikeharti* I have named today is facing extinction, due to destruction of its vulnerable shallow water habitat.

Acknowledgements

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Plate 1 (on opposite page)

Austroharpa mikeharti n. sp., all from 50 km southeast of Albany, SW Australia, at 60-80 m.

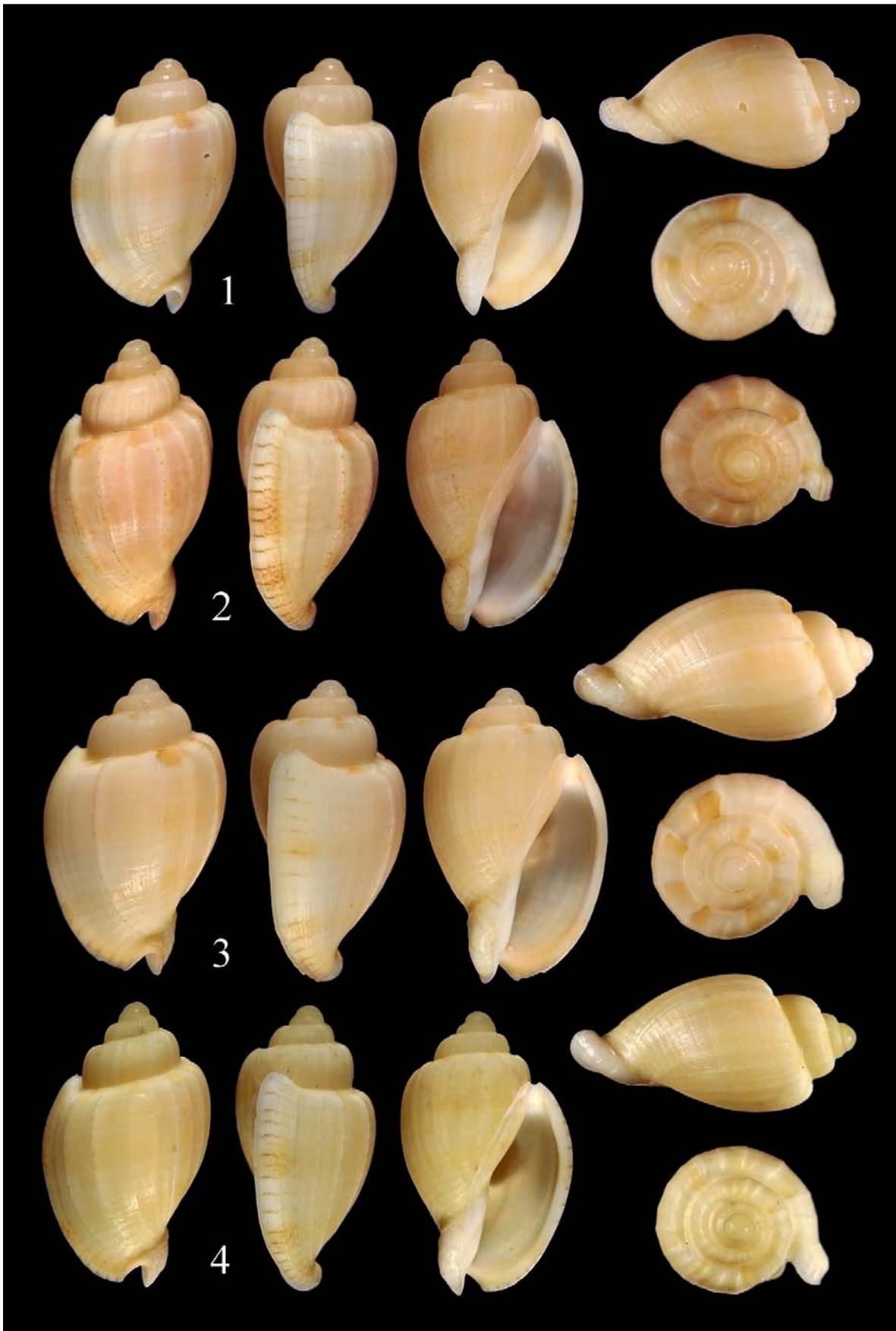
Fig. 1: 20.2 mm, Holotype, coll. WAM.

Fig. 2: 23.3 mm, Paratype 1, MH.

Fig. 3: 23.5 mm, Paratype 2, FL.

Fig. 4: 21.3 mm, Paratype 3, FL.

Plate 1



Explanation on opposite page

Plate 2 (on opposite page)

Austroharpa punctata from South Australia.

Fig. 1: 37.6 mm Kangaroo Island, at 35 m.

Fig. 2: 40.0 mm Thorny Passage, Pt. Lincoln, at 25 m.

Fig. 3: 39.9 mm Kangaroo Island, at 35 m, details of the anterior dorsal area.

Fig. 4: *A. punctata*: note that there are no transverse striae.

Fig. 5: *A. mikeharti* n. sp.: incised striae form flat plateaus of approximately 0.5 mm width.

Plate 3 (on p. ##)

Austroharpa punctata from Southwestern Australia.

Fig. 1: 27.7 mm, Cape Le Grande, at 28 m.

Fig. 2: 31.6 mm, Cape Le Grande, at 30 m.

Fig. 3: 30.9 mm, Esperance, at 25-30 m.

Fig. 4: 31.3 mm, Charley Island, Esperance, at 22 m.

Plate 4 (on p. ##)

Fig. 1: *Austroharpa learorum*, 24.9 mm, East of Esperance, at 90 m.

Fig. 2: *Austroharpa wilsoni*, 26.3 mm, off Rottest Island, at 140 m.

Fig. 3: *Austroharpa wilsoni*, 24.7 mm, off Lancelin Is. at 205 m.

Fig. 4: *Austroharpa wilsoni*, 23.1 mm, off Rottest Island, at 220 m.

Plate 2



Explanation on opposite page

Plate 3



Explanation on p. ##

Plate 4



Explanation on p. ##