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Description of four new neogastropods of superfamilies Muricoidea and Conoidea from South Africa (Gastropoda: Prosobranchia: Neogastropoda)

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ABSTRACT. The following four Neogastropoda are described from the continental shelf or slope of eastern South Africa: *Anachis (Suturoglypta) blignautae* (family Columbellidae) from off southern Zululand; *Ancillista depontesi* (Olividae), *Splendrillia hayesi* (Drilliidae), and *Turris faleiroi* (Turridae) from the eastern Agulhas Bank. *Turris faleiroi* is the first temperate-water member of its genus known.

INTRODUCTION

The discovery of a notable proportion of the more striking southern African benthic molluscs is due to the activities of commercial fishing boats. Several such species, recently submitted to the Natal Museum by Mr Brian Hayes of Port Elizabeth, prove to be undescribed. Three of the species described here may be assumed from their known distribution to be temperate-water Agulhas Bank endemics, the fourth (an *Anachis*) may possibly prove to be a tropical East African element.

Abbreviations

BMNH: The Natural History Museum, London

NMSA: Natal Museum, South Africa

ZMHB: Zoological Museum, Humboldt University, Berlin.

TAXONOMY

Superfamily **MURICOIDEA**

Family **COLUMBELLIDAE**

Genus ***Anachis*** H. & A. Adams, 1853

The following species is referred to the subgenus *Suturoglypta* Radwin, 1968 [type species (o.d.) *Columbella pretri* Duclos, 1846], on account of its square-cut whorls. Nevertheless, this may prove to be a homoplasy, as the only three species previously referred to this subgenus all inhabit the western Atlantic region. These were discussed by RADWIN (1978: 340), who elevated *Suturoglypta* to full genus status. In the absence of a modern analysis of the systematics of the Columbellidae, I prefer to follow a conservative approach.

Anachis (Suturoglypta) blignautae n. sp.
Figs 1-2

Type material.

Holotype NMSA V6140/T1548. Paratype 1, NMSA V6141/T1549; paratype 2 in B. Hayes collection. All taken from crayfish traps; paratypes both juvenile.

Type locality.

Off Richards Bay (c. 28°48'S, 32°05'E), 600 m.

Distribution.

Continental slope of southern Zululand, known only from the type locality.

Diagnosis.

Shell fusiform (aperture/total length 0.50), with a produced, somewhat dorsally bent anterior end, suture shallow; axial ribs strong, 12-13 per whorl, projecting most at periphery of last whorl, evanescing on base, crossed above and below suture by a spiral thread, which make spire whorls appear almost flat-sided; base of last whorl with 14 spiral threads; aperture with smooth margins, columella callus with slightly raised outer edge; siphonal canal not indented. Protoconch papillose, smooth, breadth 0.63-0.70 mm. Pale pinkish-orange, ribs and subsutural region white, protoconch 1 with a brown spot. Maximum length 11.2 mm.

Description.

Shell fusiform, of 6 teleoconch whorls, breadth/length 0.39, with a high, acute, orthoconoid spire (slightly cyrtoconoid towards apex) and a tapering, elongated anterior end; spire whorls rather flat-sided (almost quadrate), suture shallow. Aperture long (aperture/total length 0.50), narrow, greatest width at about posterior third, siphonal canal long and bent dorsally and to left, base obliquely truncate, termination not indented; inner and outer lips smooth, inner lip with a moderately thick callus, whose outer edge is slightly raised on columella; outer lip sinuous in side-view, evenly convex medially, shallowly concave below suture.

Sculptured by moderately strong axial ribs, crossed above and below suture by a spiral lira, base of last whorl spirally lirate. Axial ribs opisthocline, rather straight, in cross-section rounded-angular, subequal to their intervals, suture to suture, evanescing on last whorl in parietal region, most prominent at periphery of body whorl; early whorls with 13 ribs, decreasing to 12 on penultimate whorl, obsolete on last quarter whorl. Spiral lirae on spire whorls thin, angular, prickly where cross axials, upper one situated a short distance below suture, lower one slightly above succeeding suture. Anterior end of body whorl with 14 spiral lirae, those on rostrum raised, subequal, flattening out and becoming more widely set above rostrum, where they appear as paired furrows.

Pale salmon-coloured, sometimes darker on periphery of body whorl, ribs and subsutural region white, salmon-tinged in area above suture.

Protoconch papillose, of slightly fewer than 2 whorls, smooth, apically moderately convex and bearing a conspicuous brown spot; breadth 0.63-0.70 mm.

Operculum oblong-ovate, yellowish-brown.

Dimensions.

10.6 x 4.1 mm (holotype); larger paratype (with juvenile lip) with length 11,2 mm.

Notes.

Immature paratypes of this species show much similarity to *Columbella chuni* Thiele, 1925, based on juvenile material from 404-463 m off Tanzania (THIELE 1925: 142, pl. 19, fig. 6). Comparison with syntypes of *C. chuni* (BMNH 1948.12.10.1-2) shows that *A. blignautae* differs in its non-shouldered whorls, flat-sided, sharper spire and much more elongate base and aperture. From the three Western Atlantic species referred here by RADWIN (1978) it differs in its elongate aperture and more fusiform shape (almost suggestive of the New World genus *Strombina* Mörch, 1852).

Etymology.

Named after Mrs Tracy Blignaut, assistant to Brian Hayes.

Family **OLIVIDAE**

Genus *Ancillista* Iredale, 1936

KILBURN (1993: 372) regarded *Ancillaria hasta* Martens, 1902, of the Agulhas Bank, as an atypical member of this genus. A second South African species is here added, on the grounds of its large protoconch and non-ridged columella base. Nevertheless it is unique within the Ancillinae in its totally smooth, straight, non-differentiated columellar pillar. When the body is known, this species will probably prove to belong to an undescribed genus. Terminology after KILBURN (1977).

Ancillista depontesi n. sp.

Figs 3-5

Type material.

Holotype NMSA V4381/T1532, off Kenton-on-Sea, 101 m, coarse sand and shell debris, dead, Natal Museum Dredging Programme. Paratypes 1-2, NMSA V6144/T1553, same data as holotype; paratype 3, NMSA V6143/T1551, between Great Fish and Keiskamma River mouths, 100 m, in crayfish trap, with operculum, B. Hayes. Paratypes 4-6 in B. Hayes collection; paratype 4, same data as paratype 3; paratype 5, off Algoa Bay, 100 m, in crayfish trap; paratype 6, off Port Alfred, 100 m, crayfish trap.

Additional (non-type) material.

"Zululand", 100-200 m, crayfish trap, locality doubtful, in B. Hayes collection.

Type locality.

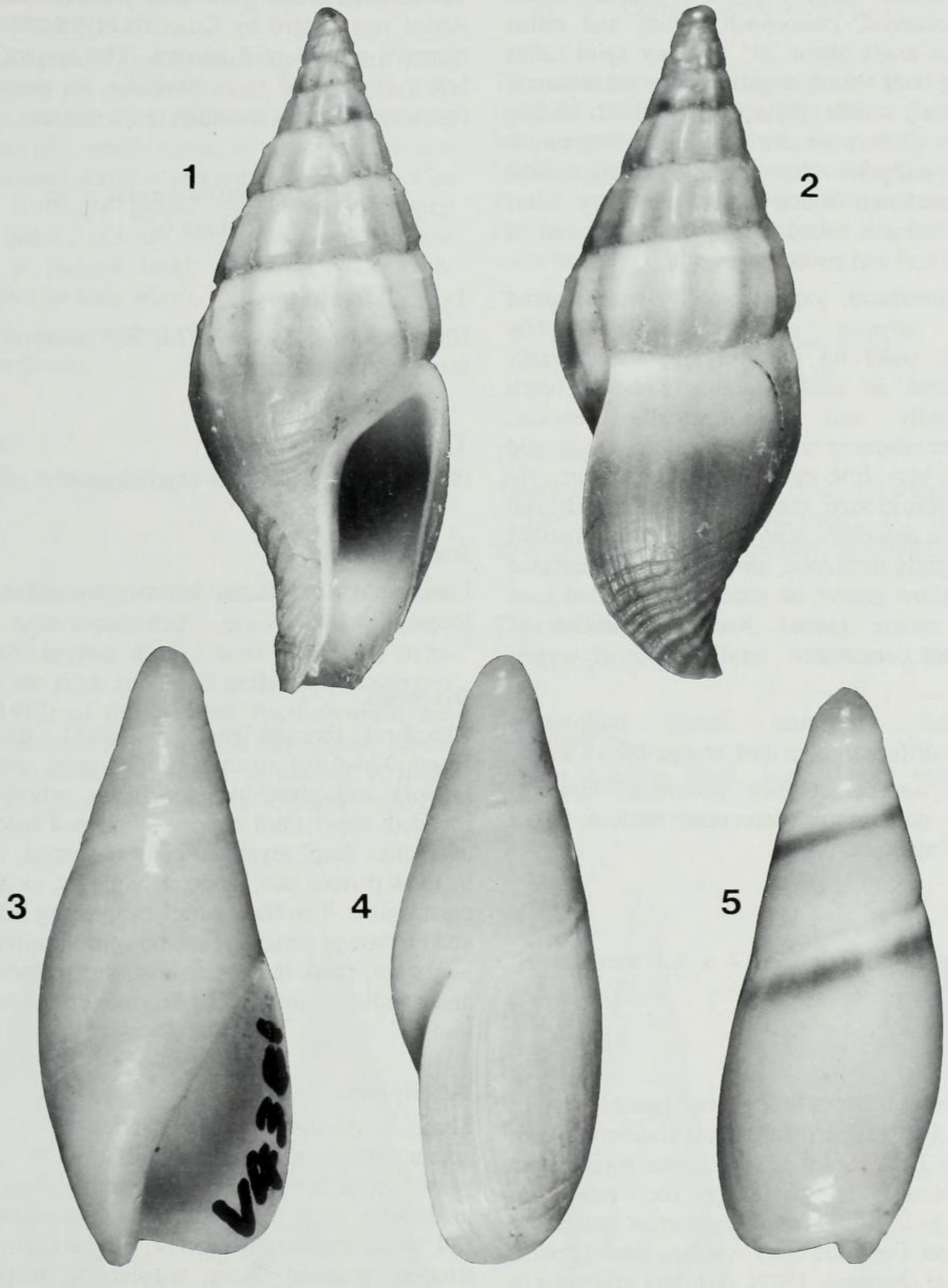
Off Kenton-on-Sea (33°55.6'S; 26°44.0'E), eastern Algoa Bay, 101 m.

Distribution.

Eastern Agulhas Bank, from off Algoa Bay to the Keiskamma/Great Fish River area.

Diagnosis.

Shell cuneiform with bluntly rounded apex, rather flat-sided spire and wide anterior end; base of columella broad and straight, not twisted, nor defined by an anterior fasciolar groove; primary spire callus thin, covering body whorl, slightly indented where covers suture, and forming a low ridge above suture, without distinct microscopic granules, although these are present on the thin secondary callus pad at end of penultimate whorl and on columella; ancillid band almost level, defined by shallow grooves; off-white with a milk-white zone below suture, followed by a narrow light to dark orange-brown band. Maximum length 20.4 mm.



Figs 1-2. *Anachis (Suturoglypta) blignautae* (Columbellidae), n. sp. Holotype NMSA V6140/T1548, off Richard's Bay, Zululand, 600 m, dimensions 10.6 x 4.1 mm. **Figs 3-5.** *Ancillista depontesi* (Olividae), n. sp. Figs 3-4. Holotype NMSA V4381/T1532, off Kenton-on-Sea, E. Algoa Bay, 101 m, dimensions 18.2 x 7.6 mm. Fig. 5. Paratype V6144/T1553, same locality, dimensions 16.3 x 6.3 mm.

Description.

Shell wedge-shaped with blunt apex, rather straight-sided spire and broad anterior end, breadth/length 0.39-0.42; body whorl more convex on left side than on right, greatest width of shell at about 0.30 length from base, aperture/total length 0.44-0.47; apical region slightly cyrtoconoid, protoconch obtuse and rather rounded, spire angle about 30°. Primary spire callus thin, covering body whorl, slightly impressed at suture, which it scarcely masks, protoconch exposed; surface of spire callus glossy, not distinctly microshagreened, lacking spiral sculpture other than a low angular ridge of callus immediately above suture; secondary callus very thin, forming a microshagreened pad at end of penultimate whorl and covering inner lip.

Aperture cuneiform, gaping basally, widest about 0.25 from anterior end, columella slightly foreshortened; outer lip thin, in side view evenly convex, without an ancillid tooth, siphonal notch deeply, broadly and asymmetrically concave. Columella not forming a twisted pillar, broad and straight, with very fine microshagreen sculpture. No anterior fasciolar groove; inner lip very shallowly and evenly concave anteriorly, straight posteriorly. Ancillid band very slightly declivous, almost level, demarcated by a very shallow groove on either side; median zone with rather coarse growth lines. Termination of protoconch not demarcated, total number of whorls about 5.5.

Cream-colour, subsutural margin milk-white, followed by a diffuse light to dark orange-brown stripe.

Operculum transparent pale yellowish, rounded-trigonal with non-terminal, eccentric nucleus, about 0.45 length of aperture.

Dimensions.

18.2 x 7.6 mm (holotype), 20.4 x 8.4 mm (largest paratype).

Notes.

Ancillista depontesi bears little resemblance to any of its congeners, but is superficially most similar to *Bullia ancillaeformis* E. A. Smith, 1906, in the Nassariidae. This resemblance is obviously the result of convergence, as it differs from the latter in possessing an ancillid band. From the other Agulhas Bank species, *Ancillista hasta* (Martens, 1902), it differs *inter alia* in the body whorl being uniformly covered with primary callus and in the presence of an ancillid band and groove.

Etymology.

Named in honour of Captain Zeca de Pontes, who first discovered this unusual species.

Superfamily **CONOIDEA**
Family **DRILLIIDAE**
Genus ***Splendrillia*** Hedley, 1922

The material of this genus then available from southern Africa was revised by KILBURN (1988:206-218), who recorded a total of 8 species. The species described below is referred to *Splendrillia* on account of the restriction of spiral sculpture to the rostrum.

Splendrillia hayesi n. sp.
Figs 6-7

Type material.

Holotype NMSA V6142/T1550; paratype 1, in B. Hayes collection.

Type locality.

Off Algoa Bay, 100 m, in crayfish pots.

Distribution.

Eastern Agulhas Bank, known only from the type locality.

Diagnosis.

Claviform (breadth/length 0.36-0.37, aperture/total length 0.36-0.40), rostrum bent to right, with a strong fasciole and chink-like umbilicus; whorls strongly rounded, upper third concave, flattened below suture; anal sinus deep, asymmetrically U-shaped, constricted by thick parietal pad; moderately glossy, axial ribs low, opisthocline, 9 on body whorl, evanescing below suture and on base at parietal level, no spiral sculpture except numerous, weak threads on rostrum; protoconch large and papillose; uniform white. Maximum length 26.7 mm.

Description.

Shell claviform (breadth/length 0.36-0.37, aperture/total length 0.36-0.40), of 7 teleoconch whorls, with blunt apex, body whorl obconical with moderately short, distinctly oblique, tapering anterior end; suture moderately shallow, not undulating; whorls strongly rounded, more angular on early whorls, periphery just below midwhorl, forming a slight shoulder on last whorl; upper third of each whorl concave, flattening out below suture (without a distinct cord or sulcus); left side of anterior end of body whorl concave, with a strong fasciole (bending rostrum to left) and chink-like false umbilicus. Aperture oblong-pyriform, greatest width at about posterior third, siphonal canal moderately deep and wide, rather

Figs 6-7. *Splendrillia hayesi* (Drilliidae), n. sp. Holotype NMSA V6142/T1550, off Algoa Bay, 100 m, dimensions 22.7 x 8.2 mm. **Figs 8-9.** *Turris faleiroi* (Turridae), n. sp. Holotype NMSA V6145/T1554, off Algoa Bay, 100 m, dimensions 40.4 x 12.3 mm.

straight, termination not dorsally indented. Inner lip almost straight, with thick callus, edge concave in parietal region where callus forms a thick posterior pad, constricting anal sinus. Outer lip chipped in all types but strongly convex in side view, with deep, rather asymmetrically U-shaped anal sinus, stromboid notch evidently very slight.

Surface moderately glossy; sculptured by low axial ribs only, except for numerous, weak spiral threads on rostrum; no definite prelabral varix, growth lines coarse. Axial ribs opisthocline, in transverse section angularly rounded, more or less equal to intervals, 9 on 1st whorl, 10-12 on penultimate whorl, becoming obsolete on last 0,2 of body whorl; ribs obsolete below suture and at parietal level, appearing as smooth, oblong nodules on body whorl. Uniform white.

Protoconch large and papillose but too worn or encrusted for details.

Dimensions.

22.7 x 8.2 mm (holotype), 26.7 x 10.3 mm (paratype).

Notes.

Of its known South African congeners, only the much narrower, salmon-coloured *Splendrillia daviesi* Kilburn, 1988, approaches *S. hayesi* in size. Of Indo-Pacific taxa the most similar is probably *S. solicitata* (Sowerby, 1913) of the Western Pacific, which has distinctly shouldered axial ribs and faint colour zones. *S. hayesi* is superficially similar to another Agulhas Bank species, *Agladrillia ukuminxa* Kilburn, 1988, but that is much smaller, with spiral threads overall and a straight rostrum.

Family **TURRIDAE**

Genus *Turris* Röding, 1798

The southern African species of this genus were revised by Kilburn (1983: 552). Much further material has subsequently been acquired during the Natal Museum Dredging Programme and will be dealt with in a future paper. However, the present species is particularly noteworthy in being the first temperate-water member of the genus known.

Turris faleiroi n. sp.

Figs 8-9

Type material.

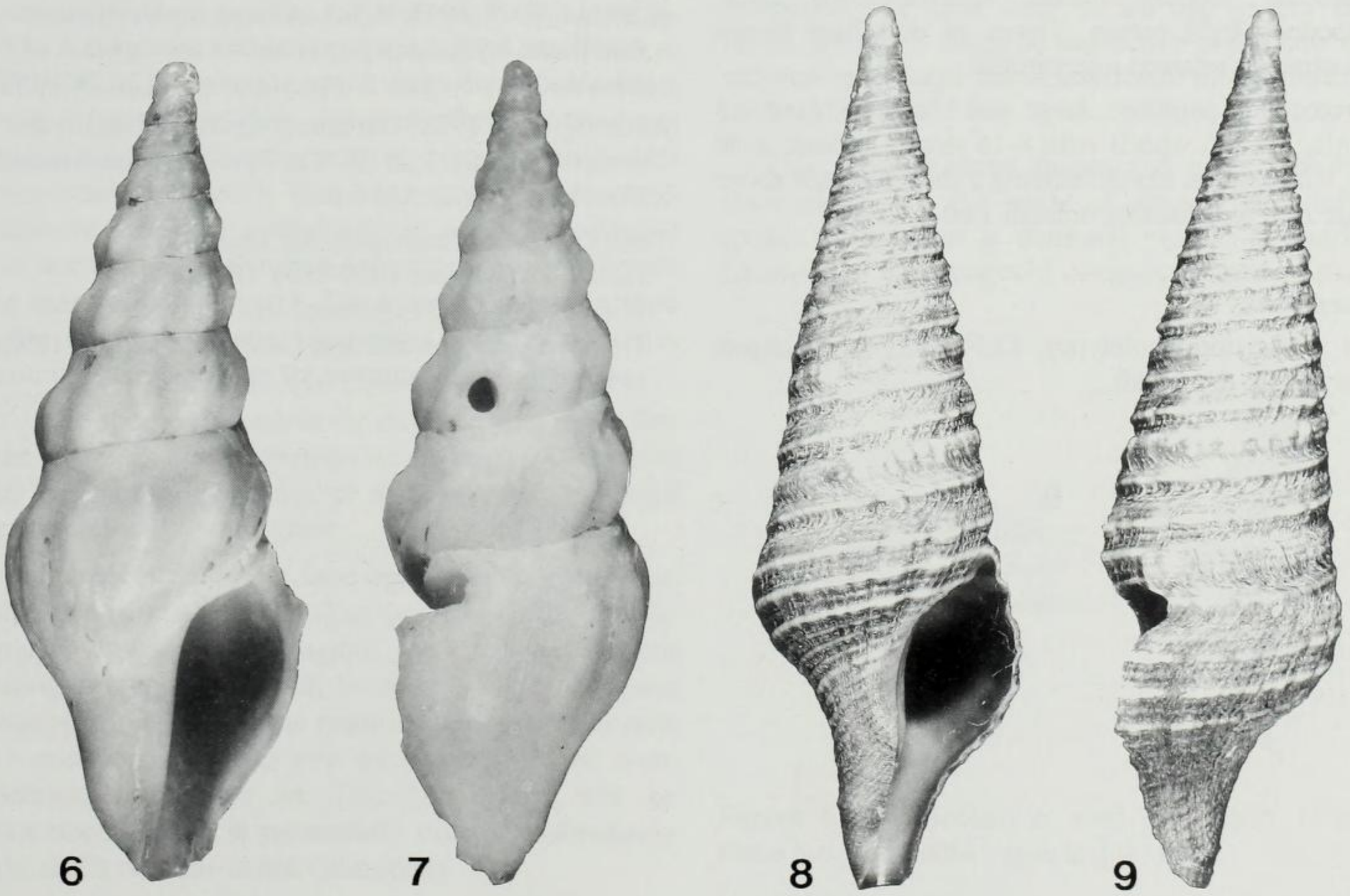
Holotype NMSA V6145/T1554; paratype 1, NMSA V6146/T1555, juvenile; paratypes 2-3 in B. Hayes collection; all from type locality, in crayfish pots.

Type locality.

Off Algoa Bay, 100 m.

Distribution.

Eastern Agulhas Bank, known only from the type locality.



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Diagnosis.

Medium-sized, fusiform with aperture/total length 0.34-0.36, spire orthoconoid, whorls moderately flat, shoulder sulcus shallow, subsutural cord broad, with 3-4 spiral lirae, shoulder cord moderately thin, weakly crenulate, periphery of base with 3 strong cords and weak intermediaries; collabral threads sharp and crispate, rendering most spiral lirae pliculate; anal sinus shallow; protoconch large (breadth 1.60-1.75 mm); reddish-brown, spiral lirae paler, flecked below suture and elsewhere with pale reddish-brown. Maximum length 43.5 mm.

Description.

Shell with 11 teleoconch whorls, breadth/length 0.30-0.31), aperture short (aperture/spire 0.34-0.36), spire orthoconoid with flattened whorls and shallow suture; subsutural cord low, rather ill-defined, bearing 3-4 spiral lirae and microscopic spiral threads, crenulated or pliculated by axial sculpture; shoulder sulcus shallow. Anal sinus shallow, asymmetrical; shoulder (sinus) cord as strong as other cords, weakly and irregularly crenulated. Periphery of base with 3 well-defined, subequal main cords, each pair separated by 1 intermediary lira flanked by several weaker threads; 2 of these cords are visible on spire whorls (making a total of 4 cords per whorl), although the lower may be hidden in suture; 1st teleoconch whorl already with 4 thin lirae, the lower two closer together. Anterior end of body whorl with 20-25 lirae, those on rostrum close and even, those above stronger and more wide-set, their intervals with fine spiral threads. Fine, sharp, crispate collabral threads overall, crenulating all main lirae.

Light brown with paler main lirae, bearing an occasional slightly darker reddish-brown fleck, protoconch light brown. Traces of dull light brown periostracum retained interstitially.

Protoconch papillose, large and blunt, of about 1.8 whorls, last 0.6 whorls with 8-16 strong, arcuate axial ribs, with a spiral lira developing a short distance above suture near termination; breadth 1.60-1.75 mm.

Dimensions.

40.4 x 12.3 mm (holotype), 43.5 x 12.2 mm (largest paratype, lip damaged).

Notes.

Turris faleiroi is very similar to another South African endemic, *Turris orthopleura* Kilburn, 1983, which lives somewhat further east on the continental shelf of Transkei and southern Natal. It differs from *T. orthopleura* in its larger protoconch (breadth 1.60-1.75 mm against 1.30-1.50 mm), which is less papillose but has a more inflated first whorl; the suture in *T. faleiroi* is much deeper, axial threads are much stronger and sharper, rendering the spirals somewhat crenulate, the subsutural cord bears 3 distinct spiral lirae, instead of only fine threads, spiral cords are slightly stronger, the shoulder sulcus is deeper and the ground colour pale brown instead of white.

Etymology.

Named after Mr Ginger Faleiro, captain of the crayfish boat that first discovered this species.

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