




PHYLUM: MOLLUSCA

Authors

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Phylum: MOLLUSCA (excluding Cephalopoda)

Sea snails, sea slugs, bivalves, tusk shells and chitons

Molluscs are one of the most diverse invertebrate groups with more than 100 000 described species and approximately 3 154 marine species recorded in South Africa. Organisms belonging to this phylum are highly diverse but can be identified by several commonly shared traits, including a mantle, the presence of a radula, the configuration of the nervous system and usually the presence of a shell that encases the mollusc's soft body for protection. The mantle plays an important role in respiration and excretion, while also creating the shell by secreting calcium and conchiolin. The radula or rasping tongue acts as the primary feeding organ, and is used by both herbivorous and carnivorous species for ingesting food. Along with the main characteristics of molluscs, the presence of a foot should also be noted. This is adapted for numerous locomotive purposes such as burrowing into sediment, gliding or swimming (nudibranchs), attachment to hard surfaces (limpets) and directing jet propulsion (cephalopods). Reproduction varies among classes and fertilisation may be external or internal. In marine species the sexes are usually separate, but some, such as the nudibranchs, are hermaphrodite, with both male and female sex organs. All molluscs produce eggs and these can hatch as free-swimming planktonic larvae or there may be no pelagic phase and the young hatch as miniature crawling adults. Molluscs act as an important source of food for many marine fish and mammals as well as for humans, and play a critical economic role in many countries. They also act as bio-indicators that can be used to monitor the health of the aquatic environment.

Molluscs can be divided into five principal classes, namely Gastropoda, Bivalvia, Scaphopoda, Polyplacophora and Cephalopoda. Species representing each of these classes are included in this guide. Cephalopoda are addressed in a separate section due to the large number of species and their importance as a fishery.

Class Gastropoda

Subclass Vetigastropoda
This group includes the abalones, key-hole and slit limpets, top-shells and turban shells. In many of these, the shell interior is nacreous (made of mother-of-pearl).

Subclass Caenogastropoda
A very diverse group including the periwinkles, cowries, wentletraps, moon snails, murex shells, whelks, volutes and cone shells.

Subclass Heterobranchia
These are more advanced gastropods including sea slugs as well as freshwater and terrestrial snails and slugs.

Class Bivalvia

Subclass Protobranchia
This group includes nut clams with taxodont hinge dentition, as well as the awning clams with their over-grown periostracum. Most are deposit feeders, but the awning clams feed via sulphide-oxidising bacteria in their gills.

Subclass Pteriomorphia
This group includes ark shells, almond arks, dog cockles, wing oysters, mussels, pen shells, file shells oysters, thorny oysters and scallops. Most of these organisms are sedentary and attach to the substratum by means of byssus threads or are cemented in place. Others like the larger scallops and some file shells can actively swim. Interior frequently nacreous. Nearly all are suspension-feeders.

Subclass Heterodonta
Includes the lucinas, jewel boxes, cockles, mactras, wedge shells, tellins, venus clams and piddocks. Heterodont bivalves have a complex hinge made up of low numbers of different types of teeth and the shell lacks nacre. These organisms often burrow into the sediment and are suspension-feeders, but the lucinids feed via sulphide-oxidising bacteria in their gills.

Subclass Anomalodesmata
This group includes some of the most specialised of all bivalves, some of which are carnivores. Many are associated with soft sediments in deep water. Examples include the Pandora clams, cuspidariids and watering pot shells.

Class Scaphopoda

The appropriately named tusk shells are a distinctive group of molluscs found in association with soft and unconsolidated substrata into which they burrow. They are selective predators of micro-invertebrates living within the sediment.

Class Polyplacophora

Better known as chitons or coat-of-mail shells, these molluscs are easily identified on account of the eight articulating dorsal plates and the surrounding girdle. They range from the intertidal to great depths and are nearly always attached to rocks or hard surfaces. Most are grazing herbivores, but some, with anteriorly enlarged girdles, are predators of small invertebrates.

Class Cephalopoda

See separate section.

Collection and preservation

For morphological study most shelled gastropods, bivalves, tusk shells and chitons are best frozen as quickly as possible. After thorough freezing they can be allowed to thaw and quickly thereafter they should be preserved in 80% ethanol. If the animals are large, the ethanol will need to be replaced after 24 to 48 hours. For DNA studies the entire living animal (with shell cracked) should be preserved in 96+% ethanol. If the animal is large, smaller pieces of the foot can be excised and placed in 96+% ethanol and the remainder treated as for morphology above. Care must be taken to label the excised tissue samples so that they do not become dissociated from the rest of the animal. Ideally chitons should be pressed flat when placed in preservative to prevent them from curling up.

Shell-less sea slugs (nudibranchs) can be preserved in 70% ethanol, 4% formalin, or buffered and isotonic 3.7% glutaraldehyde solution, and in 96% ethanol for molecular studies. Sea slug specimens can be relaxed in isotonic $MgCl_2$ solution (7%) (or menthol crystals) until unresponsive to touch.

References

Barnes RSK, Calow P, Olive PJW, Golding DW and Spicer JI. 2001. The Invertebrates, A Synthesis (3 ed.). UK: Blackwell Science.

Beesley PL, Ross GJB and Wells A. (eds) 1998. *Mollusca: The Southern Synthesis. Fauna of Australia. Vol. 5.* CSIRO Publishing: Melbourne, Part A. xvi 563 pp. Part B viii 565–1234 pp.

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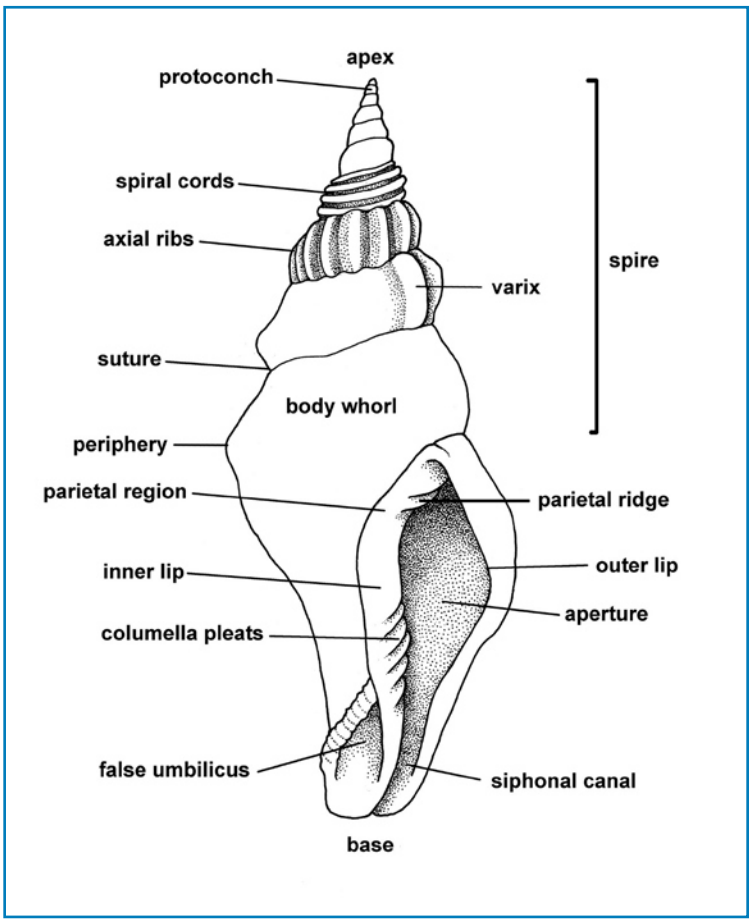
Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa*. Johannesburg. Macmillan. p. 59, pl. 13.

Ruppert EE, Fox RS and Barnes RD. 2004. *Invertebrate Zoology* (7 ed.). Brooks/Cole.

Sturm, CF. Pearce, TA & Valdés, A. 2006. *The Molluscs: A Guide to their Study, Collection and Preservation.* American Malacological Society, Pittsburgh, PA, USA. pp. xii + 445.

Trueman ER and Clarke MR. 1988. The Mollusca (Vol. 11) Form and function. Academic Press Inc., California.

Gastropod shell terminology



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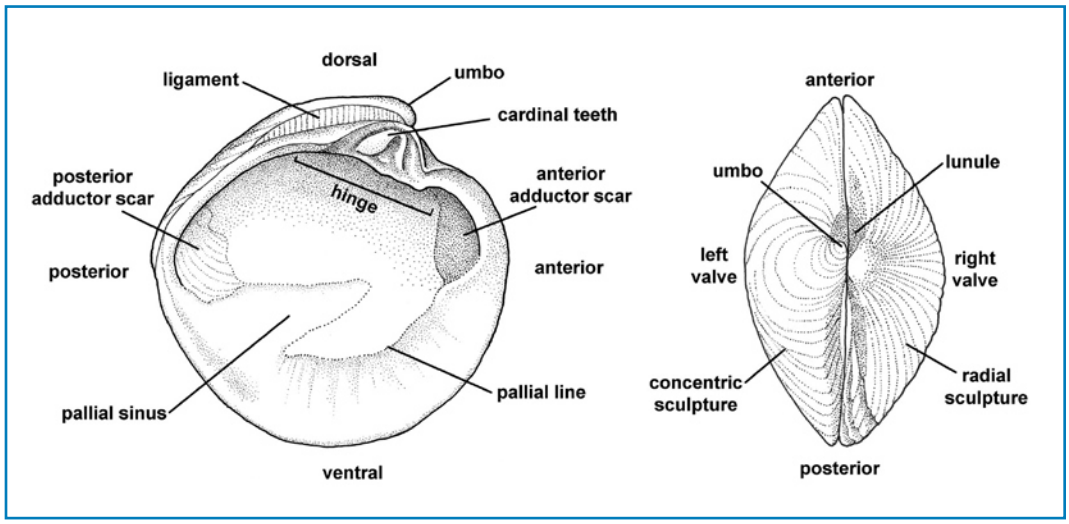
Sea shells of southern Africa. Johannesburg. Macmillan. p. 73

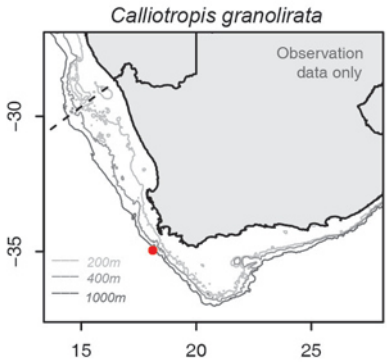
Bivalve shell terminology



Adapted by LS Davis from Kilburn RN and Rippey E. 1982.
Sea shells of southern Africa. Johannesburg. Macmillan. p. 73

Calliotropis granolirata (Topshl)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Vetigastropoda
Order:	Seguenziida
Family:	Eucyclidae
Genus:	*Calliotropis*
Species:	*granolirata*
Common name:	Cape cog shell



Distinguishing features
Shell small, with conical spire and rounded base; sculptured by strong spiral cords bearing well-developed granules; spire whorls with three cords above and including periphery; base with four cords; umbilicus closed; aperture nacreous (mother-of-pearl) when fresh.

Colour
Uniformly milky-white to pale buff, lustreless.

Size
Length (height) up to 13 mm.

Distribution
South African endemic. To date known reliably only from deep water off the Cape Agulhas–Cape Point region, to depths of 2 750 m. More accurate locality data is urgently needed.

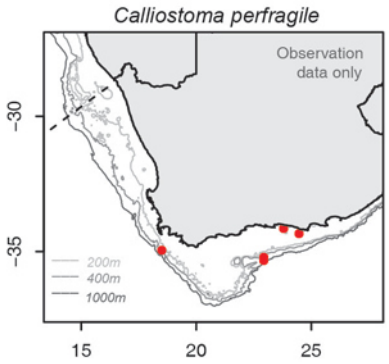
Similar species
None on Agulhas Bank.

References
Barnard KH. 1963. Contributions to the knowledge of South African marine Mollusca. Part IV. Gastropoda: Prosobranchiata: Rhipidoglossa, Docoglossa. Tectibranchiata. Polyplacophora. Solenogastres. Scaphopoda. *Annals of the South African Museum* 47(2): 201–360. p. 260.

Herbert DG. 2015. An annotated catalogue and bibliography of the taxonomy, synonymy and distribution of the Recent Vetigastropoda of South Africa (Mollusca). *Zootaxa* 4049(1): 1–98. p. 29. doi. org/10.11646/zootaxa.4049.1.1.

Calliostoma perfragile (CaScot)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Vetigastropoda
Order:	Trochida
Family:	Calliostomatidae
Genus:	*Calliostoma*
Species:	*perfragile*
Common name:	Agulhas calliostoma



Distinguishing features

Shell top-shaped, with conical spire and somewhat flattened base; spire whorls slightly convex, suture shallowly indented; periphery roundly angular, but not keeled; sculptured by spiral cords of which the first two to three below suture are finely granular, the others smooth; cord intervals often with a fine spiral thread; base smoother with several broad spiral cords around umbilical region; umbilicus closed; aperture nacreous (mother-of-pearl); operculum circular, multi-spiral.

Colour

Spire overall pale orange-brown (biscuit-coloured), rather glossy and slightly iridescent; under microscope spiral cords whitish, their intervals orange-brown; periphery with a spiral row of dash-like brown markings; base paler.

Size

Length up to 25 mm.

Distribution

South African endemic. Agulhas Bank (Cape canyon to southern Transkei), perhaps also KwaZulu-Natal, 100-350 m.

Similar species

Calliostoma ornatum, a shallower water species from the Cape south coast, lacks the peripheral brown markings of *C. perfragile*. The east coast *C. scotti* is much larger and has more strongly angled periphery and concave spire.

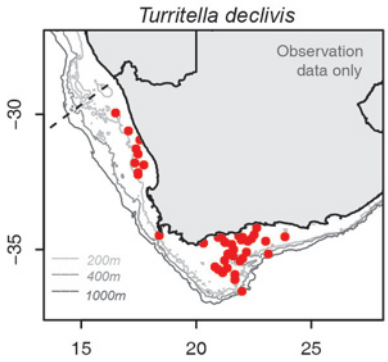
References

Barnard KH. 1963. Contributions to the knowledge of South African marine Mollusca. Part IV. Gastropoda: Prosobranchiata: Rhipidoglossa, Docoglossa. Tectibranchiata. Polyplacophora. Solenogastres. Scaphopoda. *Annals of the South African Museum* 47(2): 201–360. p. 258.

Herbert DG. 2015. An annotated catalogue and bibliography of the taxonomy, synonymy and distribution of the Recent Vetigastropoda of South Africa (Mollusca). *Zootaxa* 4049(1): 1–98. p. 38. doi. org/10.11646/zootaxa.4049.1.1.

Turritella declivis (TurDec)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	unassigned Caenogastropoda
Family:	Turritellidae
Genus:	*Turritella*
Species:	*declivis*
Common name:	Zebra turret shell/Bokhoring



Distinguishing features

Shell long and slender, whorls flattened or slightly concave (hollowed inwards); base of last whorl angular; aperture small and slightly flaring at base; surface with fine, curved axial growth-lines, becoming obsolete on lower part of each whorl; no spiral sculpture; outer lip thin, often damaged.

Colour

Shell cream-coloured with a broad brown mid-whorl spiral band; shell surface sometimes etched and colour indistinct; juveniles with brown spots below suture.

Size

Length up to 100 mm, but usually less than 65 mm.

Distribution

South African endemic. Common on the Agulhas Bank (Kei River to False Bay), in places hugely abundant and dominating the marine benthos; also found on West Coast, but evidently in much lower numbers (more specimens needed to confirm its distribution on West Coast).

Similar species

Turritella carinifera has a distinct mid-whorl spiral keel and is whitish to buff, lilac or pale mauve-brown, lacking the distinctive brown spiral band of *T. declivis*.

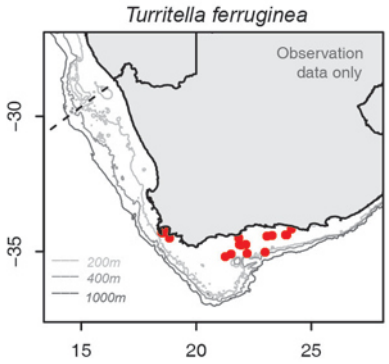
References

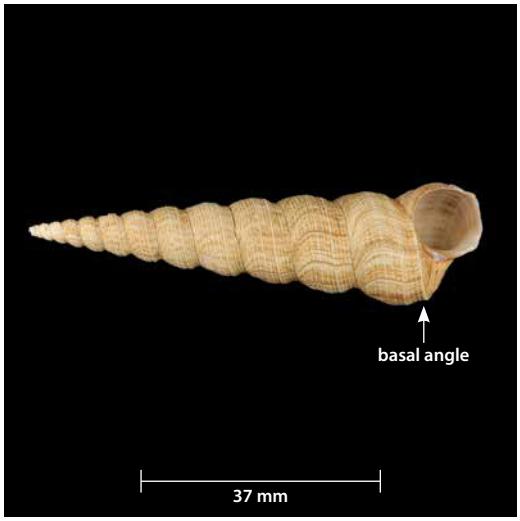
Herbert DG. 2013. *Turritella declivis* Adams & Reeve, in Reeve, 1849 (Mollusca: Gastropoda) – a South African not an Australian species, and a characteristic component of the Agulhas Bank benthos. *African Zoology* 48(2): 412–417. http://dx.doi.org/10.3377/004.048.0206.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 16.

Turritella ferruginea (TurFer)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	unassigned Caenogastropoda
Family:	Turritellidae
Genus:	*Turritella*
Species:	*ferruginea*
Common name:	Speckled turret shell





Distinguishing features

Shell relatively large, many-whorled, long and slender, tapering gradually toward apex; whorls slightly convex (rounded outward), sculptured with numerous close-set, crisp, spiral threads; surface dull; basal angle distinct, delineated by a stronger spiral cord (arrowed in figure); aperture rounded; outer lip distinctly concave (hollowed inwards).

Colour

Cream to buff, speckled with reddish-brown, sometimes in the form of curved axial flames.

Size

Length up to 110 mm, occasionally more.

Distribution

South African endemic. Agulhas Bank (False Bay to Algoa Bay), 40–210 m.

Similar species

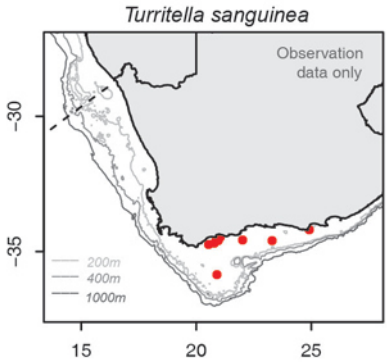
Might be confused with *Turritella sanguinea*, but in that species the whorls are more convex, the spiral sculpture more rounded, and the basal angle is not delineated by a slightly stronger spiral cord.

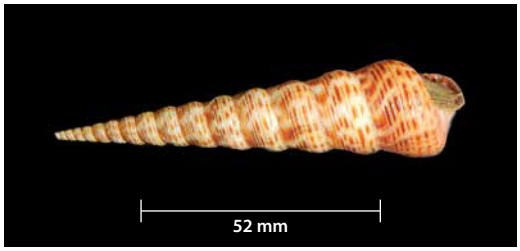
References

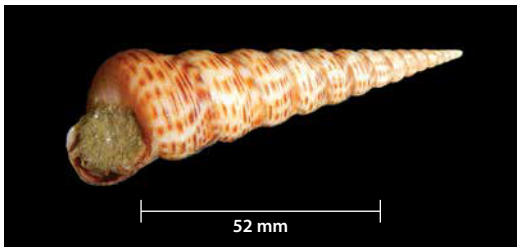
Barnard KH. 1963. Contributions to the knowledge of South African marine Mollusca. Part III. Gastropoda: Prosobranchiata: Taenioglossa. *Annals of the South African Museum* 47(1): 1–199. p. 174.

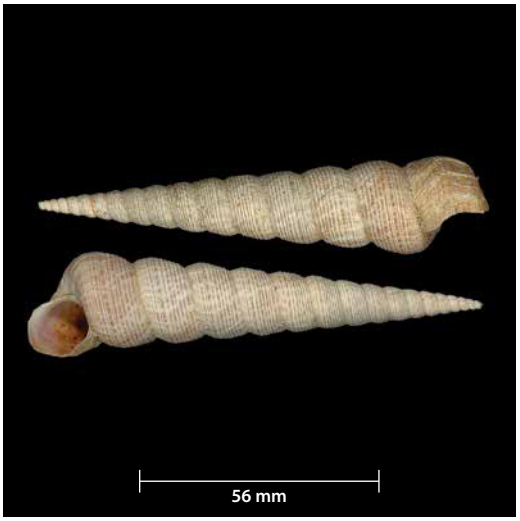
Turritella sanguinea (TurSan)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	unassigned Caenogastropoda
Family:	Turritellidae
Genus:	*Turritella*
Species:	*sanguinea*
Common name:	Mottled turret shell









Distinguishing features

Shell relatively large, many-whorled, long and slender, tapering gradually toward apex; whorls convex (rounded outward), sculptured with relatively uniform rounded or flat-topped spiral cords; surface dull; basal angle not delineated by a stronger spiral cord; aperture rounded; outer lip shallowly concave (hollowed inwards).

Colour

Cream to buff with reddish-brown dashes on the spiral cords, sometimes aligned into axial flames or bands.

Size

Length up to 100 mm, occasionally more.

Distribution

South African endemic. Agulhas Bank (False Bay to East London) and extending northwards into KwaZulu-Natal (the smaller *T. salisburyi* form), 30–120 m.

Similar species

Might be confused with *Turritella ferruginea*, but that species has less strongly convex whorls, finer, crisper spiral sculpture, and the basal angle is stronger and delineated by a slightly larger spiral cord.

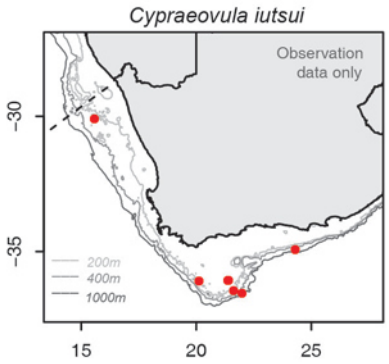
References

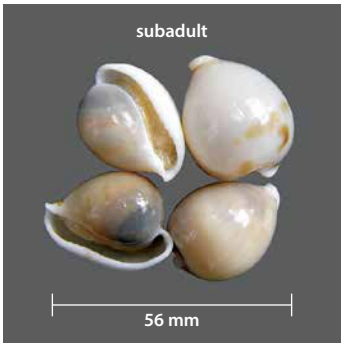
Barnard KH. 1963. Contributions to the knowledge of South African marine Mollusca. Part III. Gastropoda: Prosobranchiata: Taenioglossa. *Annals of the South African Museum* 47(1): 1–199. p. 169.

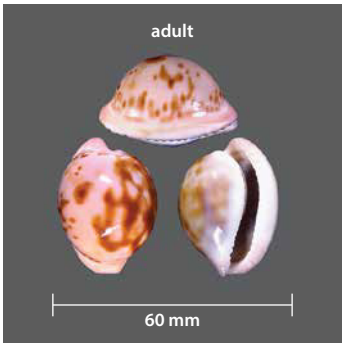
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 16.

Cypraeovula iutsui (TesPul)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Littorinimorpha
Family:	Cypraeidae
Genus:	*Cypraeovula*
Species:	*iutsui*
Common name:	Globular Cape cowrie







Distinguishing features
Shell globular, often almost spherical, spire entirely enveloped by last adult whorl; aperture elongate with a thickened, white, denticulate margin; teeth on outer lip (labrum) stronger, numbering 17–25; juveniles ('bulla' stage) common, retaining vestiges of spire and narrowed siphonal region.

Colour
West coast specimens vary from opaque white to pale plum with few dorsal markings; in Agulhas Bank specimens the dorsum is more densely patterned with reddish-brown spots and blotches.

Size
Adult shell length 22–41 mm.

Distribution
South African endemic. West coast to South coast, Agulhas Bank; from Olifants River Mouth to Port Alfred, 50–350 m.

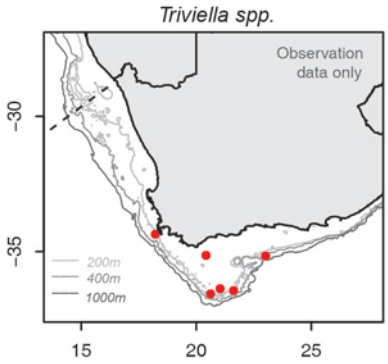
Similar species
Several other *Cypraeovula* species occur off the coast of South Africa. Some differ only in subtle differences and they are very difficult to identify with certainty. *C. iutsui* seems to be one of the more commonly encountered ones in trawl nets. Specimens which do not match the above description and images should be recorded as *Cypraeovula* sp.

References
Liltved WR. 2000. *Cowries and their relatives of southern Africa.* Second enlarged edition Seacomber Publications. Cape Town. p. 78.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 51.

Triviella spp. (TriMil)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Littorinimorpha
Family:	Triviidae
Genus:	*Triviella*
Species:	spp.
Common name:	Smooth pearl cowries



Distinguishing features

The genus *Triviella* (previously treated as a subgenus of *Trivia*) consists of several species that are very similar and require microscopic examination of the live animal for accurate species-level identification. The shells of smooth pearl cowrie species are inflated and globular, with a thickened labrum (outer lip of aperture), bearing well-developed denticles that continue as transverse ridges around the outer lip, sometimes extending onto lower lateral part of dorsum; inner lip of aperture also denticulate.

Colour

Shell uniformly white to rose-pink or plum; mantle colour highly variable with mottled, blotched, spotted and reticulate patterns, often matching that of the tunicates on which they feed.

Size

Length ranges from 11 mm to 27 mm, depending on species.

Distribution

South African endemic. Agulhas Bank, from the Atlantic coast of the Cape Peninsula to the Transkei region, shallow subtidal to 160 m.

Similar species

Smooth pearl cowries can refer to seven species of *Triviella*, namely *Triviella calvariola, T. khanya, T. magnidentata, T. millardi, T. rubra, T. verhoefi* and *T. ovulata*. Shells are generally smaller and thinner than species of *Cypraeovula*, and often more globose, with more uniform colouration. There are further species of *Triviella*, such as *T. aperta* and *T. sanctispiritus*, but in these the ridges extend over much, if not all, of the dorsum.

Notes

All smooth-shelled *Triviella* are captured under the code of **TriMil**, *Triviella* spp. and can include *T. calvariola, T. khanya, T. magnidentata, T. millardi, T. verhoefi , T. ovulate,* and *T. rubra.*

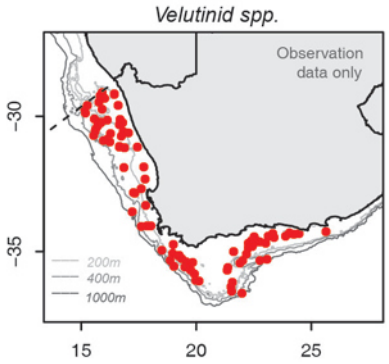
References

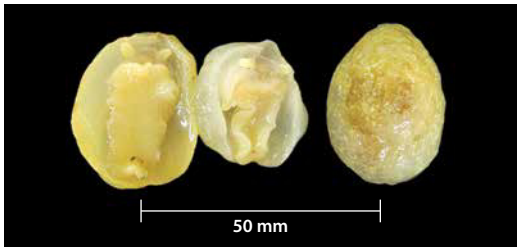
Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa*. Johannesburg. Macmillan. p. 59, pl. 13.

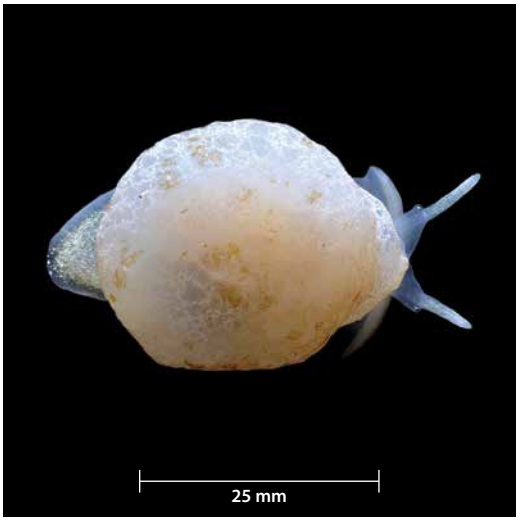
Liltved WR. 2000. *Cowries and their relatives of southern Africa.* Second enlarged edition Seacomber Publications. Cape Town. pp. 152-164.

Velutinid (Opisbr)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Littorinimorpha
Family:	Velutinidae
Genus:	*Lamellaria/Coriocella*
Species:	-
Common name:	Velutinid







Distinguishing features
Resembles a dorid nudibranch sea slug, but anatomically quite different. Shell present, but completely internal, covered by fleshy mantle; ventral surface with a distinct foot and head bearing tentacles with basal eyes; anterior of notum (dorsal surface) indented in mid-line, forming a short siphon; mantle relatively firm, but texture somewhat gelatinous, for the most part smooth; internal shell ear-like, thin and fragile.

Colour
Translucent, greyish-white to pinkish or yellow with black/brown spots and blotches. Colouration variable, resembling that of the ascidian prey on which they live and feed and thus providing camouflage.

Size
Length 25–40 mm.

Distribution
Common on West coast and Agulhas Bank.

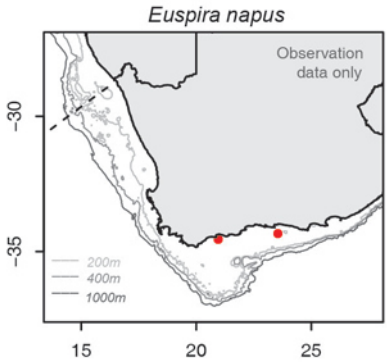
Similar species
Easily mistaken for a dorid sea slug, but readily distinguished by the anterior siphon and typically snail-like, tentacle-bearing head beneath the anterior mantle. No rhinophores (chemosensory tentacles) or dorsal circlet of gills.

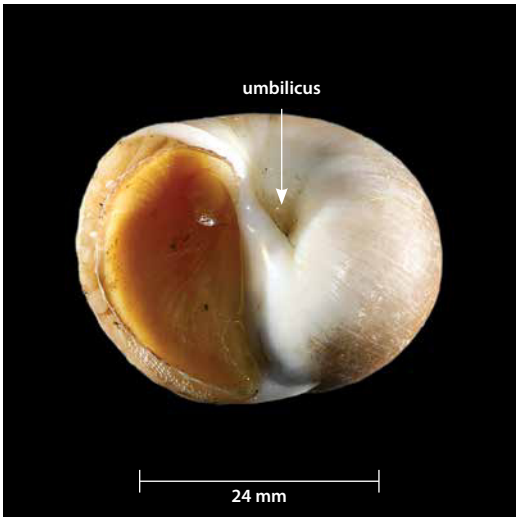
Notes
The taxonomy of the South African species is poorly resolved and needs further study.

References
Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa*. Johannesburg. Macmillan. p. 58.

Euspira napus (EusNap)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Littorinimorpha
Family:	Naticidae
Genus:	*Euspira*
Species:	*napus*
Common name:	Moon snail





Distinguishing features
Shell rounded, solid and smooth, with a low spire; aperture semi-circular with a thin outer lip; base with a distinct, but narrow umbilicus and a somewhat thickened edge to the inner lip; sculpture comprises only fine, close-set growth-lines. Living animal with a horny operculum.

Colour
Shell white; periostracum (thin outer skin-like covering) dull brown, usually with a pattern of fine spiral lines.

Size
Diameter 30–40 mm.

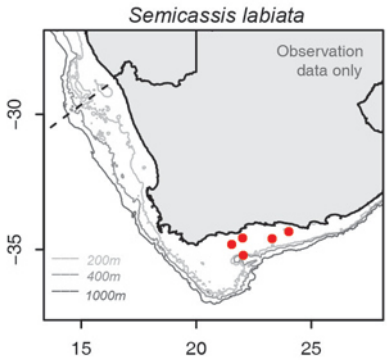
Distribution
South African endemic. Agulhas Bank (False Bay to western Transkei), 50–210 m.

Similar species
Euspira psila, which also occurs on the Agulhas Bank, is similar but much smaller (diameter ± 10 mm). *Natica simplex* has a higher spire, is smaller and has a calcareous operculum. Another large moon snail, *Euspira lemaitrei*, occurs on the West Coast, but it has a higher spire and a broader umbilicus within which are two low spiral ridges.

References
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 24.

Semicassis labiata (Phalab)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Littorinimorpha
Family:	Cassidae
Genus:	*Semicassis*
Species:	*labiata*
Common name:	Helmet/Lipped bonnet shell



Distinguishing features
Shell rounded with a low, rather pointed spire; glossy and smooth, but usually with one to two rows of low nodules in shoulder region; outer lip thickened in adult specimens; anterior end with a pronounced, up-curving siphonal notch. Very variable in size, strength of nodules, shell thickness and depth of colouration. Agulhas Bank shells usually larger, thinner, with weak nodules and less vivid colouration.

Colour
Pale pinkish-brown to yellowish-brown, some specimens with three to five rows of diffuse semi-circular whitish spots; outer lip with deep purple blotches, frequently in pairs. Shell colours fade noticeably after death.

Size
Length up to 80 mm.

Distribution
West coast False Bay to KwaZulu-Natal north coast, subtidal to 150 m.

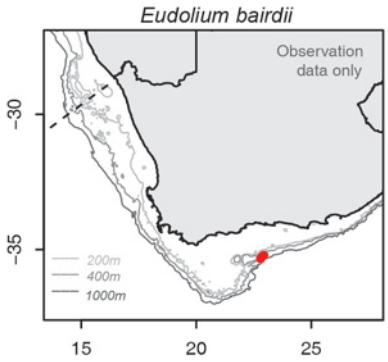
Similar species
Species of *Eudolium* have stronger spiral sculpture.

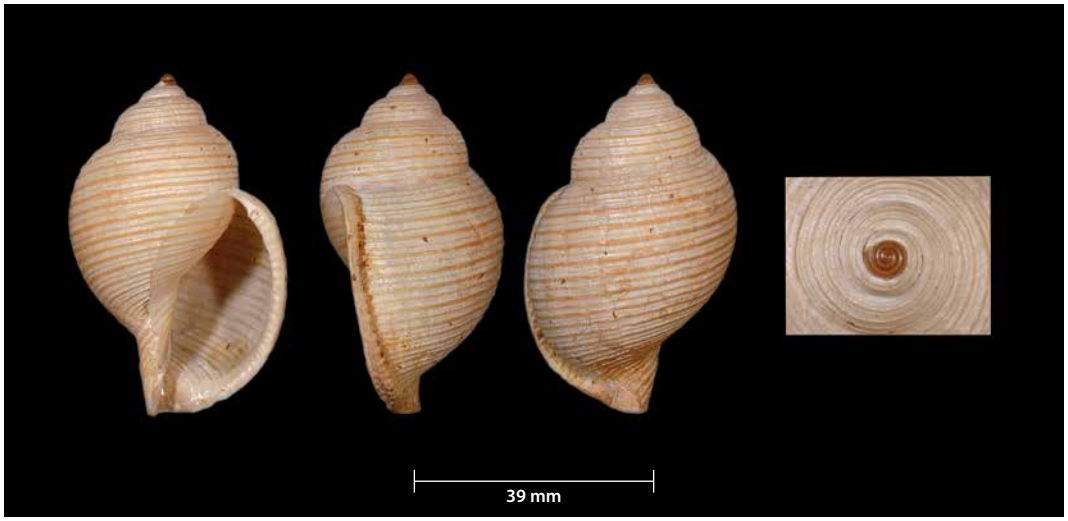
References
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2010. *Two Oceans. A guide to the marine life of southern Africa.* Revised edition. David Philip. Cape Town. p. 188.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 64.

Eudolium bairdii (EndBai)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Littorinimorpha
Family:	Tonnidae
Genus:	*Eudolium*
Species:	*bairdii*
Common name:	Baird's bonnet





Distinguishing features
Shell thin, globose, spire prominent with rounded whorls and strongly indented suture; sculpture of well-defined, narrow spiral cords of alternating strength; outer lip thickened and flaring outward in adult specimens, its inner edge finely toothed; anterior end with a pronounced siphonal notch.

Colour
Shell buff to pale brown, the primary spiral cords darker brown; spire may have a grey-blue tinge; tip of spire (protoconch/apex), if present, clearly distinct and brown in colour.

Size
Adult shell length 40–65 mm.

Distribution
Widely distributed in many parts of the world; recorded off South and East coast of South Africa, 100–500 m.

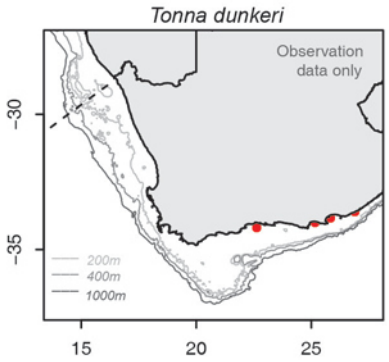
Similar species
Eudolium crosseanum is a larger species (length up to 95 mm) with a more elevated spire; the sculpture is similar but the spiral cords are not dark brown. Locally it has only been found off KwaZulu-Natal.

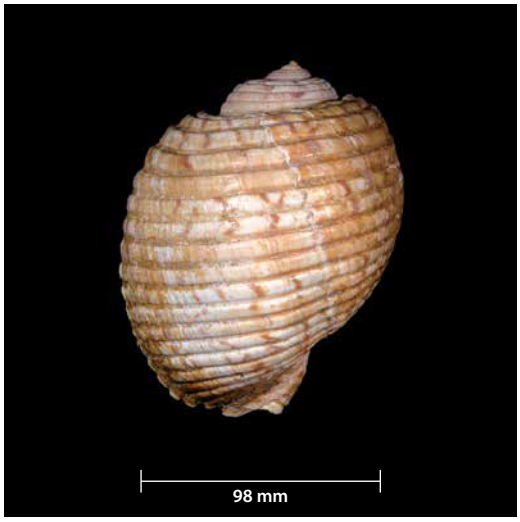
References
Beu AG, Bouchet P and Tröndlé J. 2012. Tonnoidean gastropods of French Polynesia. *Molluscan Research* 32: 61–120. p. 104.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 65.

Tonna dunkeri (TonVar)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Littorinimorpha
Family:	Tonnidae
Genus:	*Tonna*
Species:	*dunkeri*
Common name:	Boxing-glove





Distinguishing features
Moderate to large, fragile shells, globular in shape with a very large aperture and low spire; sculptured by well-developed, broad, flat-topped, spiral cords; base with a pronounced siphonal notch. Adult animals lack an operculum. A variable species with shallow- and deep-water forms. On the Agulhas Bank the shell is more globular and has a lower spire with a strong shoulder and somewhat sunken suture.

Colour
Fresh shells light brown to orange-brown, ribs marked with irregular white blotches, bordered by darker brown bars.

Size
Shell length up to 125 mm.

Distribution
South African endemic. South coast Agulhas Bank and East coast, 50–100 m.

Similar species
There is a shallow-water form of this species that is smaller (length 40–90 mm), narrower and thicker shelled, and has a well-developed, white parietal callus.

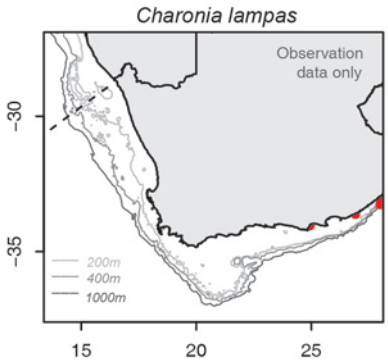
Notes
Previously known as *Tonna variegata*. The eggs are laid in broad, flat, jelly-like ribbons.

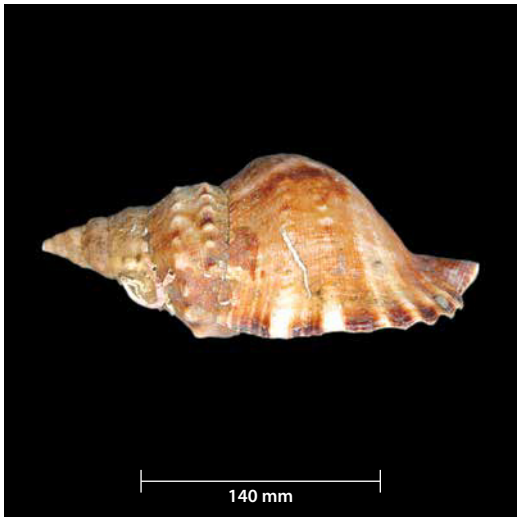
References
Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg: Macmillan. p. 71 (as *T. variegata*).

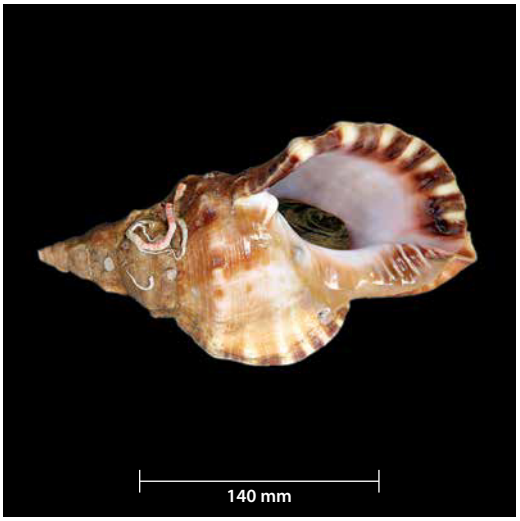
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 67.

Charonia lampas (ChaLam)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Littorinimorpha
Family:	Ranellidae
Genus:	*Charonia*
Species:	*lampas*
Common name:	Pink lady







Distinguishing features

Shell large to very large, robust with a distinct shoulder bearing strong, rounded knobs; sculptured elsewhere by rather flat spiral cords of varying strength, strongest on base, with numerous finer intermediary threads; growth varices usually present on spire whorls; inner lip glossy, reflected over columella (inner lip) and bearing distinct ridges; additional ridges on parietal region, that closest to insertion of outer lip particularly strong; outer lip thickened with ridge-like teeth, often arranged in sets of two or three; siphonal notch well-developed.

Colour

Buff to pinkish-brown, dotted, mottled and blotched with shades of brown to purplish-brown; base of inner lip and teeth of outer lip dark purple-brown, their intervals whitish. Foot of living animal orange-pink, often with white spots; tentacles orange and usually with black barring.

Size

Length up to 290 mm.

Distribution

False Bay to Kosi Bay, subtidally to 100 m, rarely more.

Similar species

South African material is referable to *C. lampas pustulata*; the eastern Atlantic *C. lampas lampas* occurs on the West Coast, from Namibia northwards. This is narrower, has weaker shoulder knobs and fewer intermediary spiral threads.

References

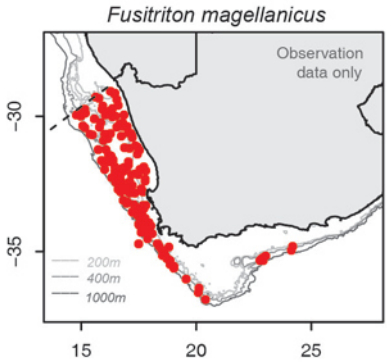
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2010. *Two Oceans. A guide to the marine life of southern Africa.* Revised edition. David Philip. Cape Town. p. 190.

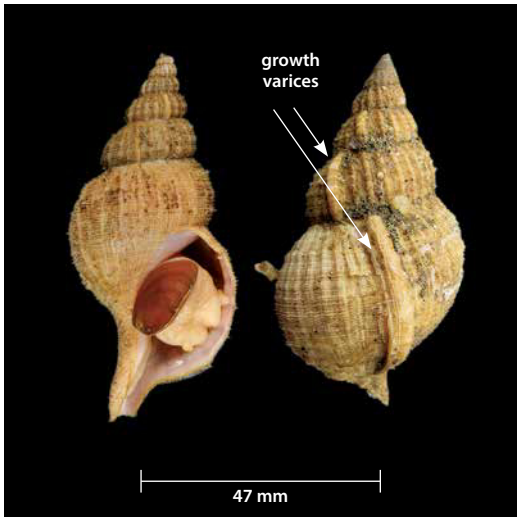
Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg. Macmillan. p. 73.

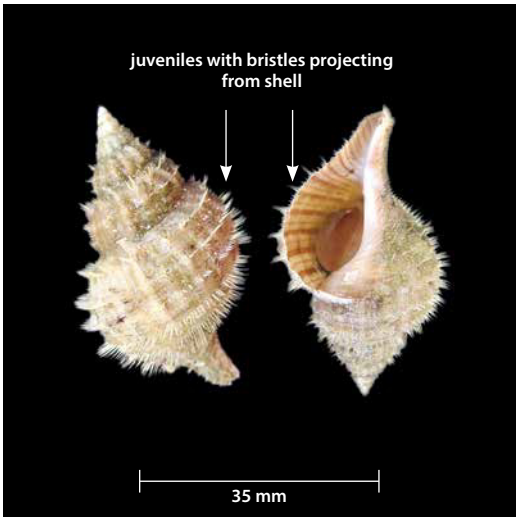
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 74.

Fusitriton magellanicus (FusMur)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Littorinimorpha
Family:	Ranellidae
Genus:	*Fusitriton*
Species:	*magellanicus*
Common name:	Waffle whelk







Distinguishing features
Shell broadly spindle-shaped, relatively light in weight; sculpture reticulate (cross-hatched), nodular at intersections, strongest on spire, often weaker on last adult whorl; spire sometimes with distinct growth varices (arrowed in photo), but these sometimes weak or absent; aperture large, its base extending as a somewhat sinuous siphonal canal of moderate length.

Colour
Shell white, occasionally with pinkish spiral ridges; surface of living specimens covered with bristly, light brown periostracum; bristles conspicuous in juvenile shells, arranged in spiral pattern.

Size
Largest sampled specimen 145 mm in length, but usually smaller than this.

Distribution
South African endemic. Agulhas Bank and throughout West coast region, 50–550 m. The most common whelk species occurring on West coast.

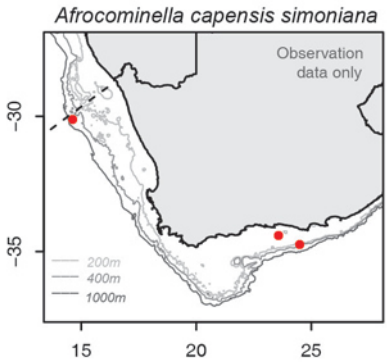
Similar species
None.

References
Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg. Macmillan.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 78.

Afrocominella capensis simoniana (AfrCap)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Buccinidae
Genus:	*Afrocominella*
Species:	*capensis simoniana*
Common name:	Variable Agulhas whelk



Distinguishing features
Shell spindle-shaped to biconic (two cones), proportions variable; deep-water specimens less elongate; whorls shouldered with sculpture of distinct spiral cords, also with low axial ribs in shoulder region, rendering shoulder somewhat nodular; outer lip thickened and internally ridged at maturity; siphonal canal short.

Colour
Cream, greyish-white or fawn, with orange or reddish-brown markings (mottled, spirally banded or with axial flames); aperture generally white in deep-water specimens.

Size
Length up to 40 mm, shallow-water form longer.

Distribution
South African endemic. Agulhas Bank, subtidal to 160 m.

Similar species
Afrocominella capensis capensis, which has a less elongate shell and finer spiral cords, occurs in shallow water off the West coast. *A. turtoni* from shallow water on the South and East coasts has less obviously shouldered whorls and much finer sculpture.

Notes
Agulhas Bank material traditionally regarded as a deep-water form of *Afrocominella elongata*, but that species is now considered part of a highly variable subspecies of *A. capensis*. Shallow-water specimens are considerably more elongate and have a more mottled colour pattern.

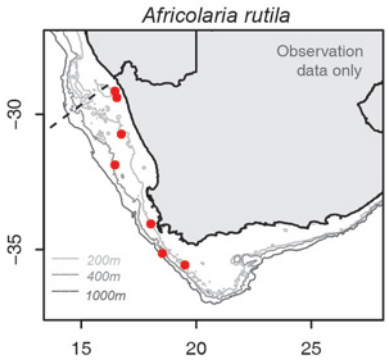
References
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2016. *Two Oceans. A guide to the marine life of southern Africa.* Fourth edition. Struik Nature. Cape Town. p. 192 (shallow-water form).

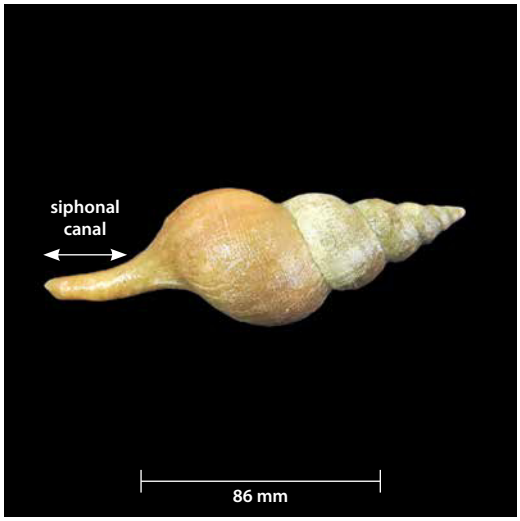
Kilburn RN, Marais JP and Fraussen K. 2010. Buccinidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa.* Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 21.

Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg. Macmillan. p. 93.

Africolaria rutila (FasRut)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Fasciolariidae
Genus:	*Africolaria*
Species:	*rutila*
Common name:	Smooth horse conch





Distinguishing features

Shell spindle-shaped, spire and aperture of similar length; whorls evenly rounded; sculptured by fine spiral threads; siphonal canal of moderate length; inner lip with one spiral columella pleat at start of siphonal canal, occasionally a second one adjacent to this; parietal region with an indistinct, in-running, spiral ridge just below insertion of outer lip; interior of outer lip smooth; tip of spire slightly bulbous when not damaged or worn.

Colour

Whitish with a thin, pale horn-coloured or orange-brown periostracum, often eroded on spire. Animal yellowish-white to pale yellow.

Size

Length up to 175 mm, perhaps more.

Distribution

South African endemic. West coast to Namibian border and Agulhas Bank, 65–500 m.

Similar species

Africolaria wattersae, also from the Agulhas Bank, has distinct nodules at the shoulder and a longer siphonal canal – please look out for and preserve living specimens of this species. See also comparative remarks for *A. thersites.*

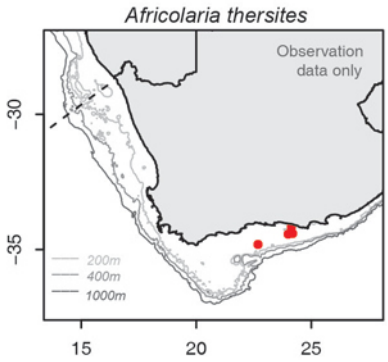
References

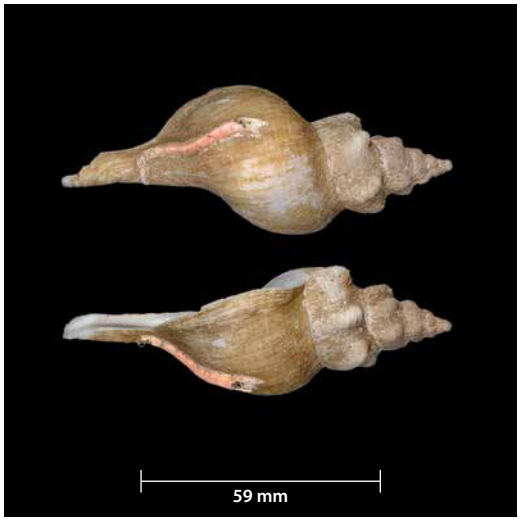
Marais JP and Kilburn RN. 2010. Fasciolariidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa*. Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 111 (as *Fasciolaria*).

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 135 (as *Fasciolaria*).

Africolaria thersites (AfrThe)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Fasciolariidae
Genus:	*Africolaria*
Species:	*thersites*
Common name:	Varicose horse conch





Distinguishing features
Shell spindle-shaped, spire half to two-thirds total length of aperture; whorls usually with strong, widely spaced axial ribs (strongest at shoulder), but sculpture variable and some specimens with virtually no ribs on later whorls; spiral sculpture of very fine threads; siphonal canal of moderate length; inner lip with a strong spiral columella pleat at start of siphonal canal, a second weaker one just above this; a third narrow, in-running, spiral ridge in parietal region, below insertion of outer lip; interior of outer lip smooth; tip of spire slightly bulbous when not damaged or worn.

Colour
Shell white with a thin, pale horn-brown periostracum, often eroded on spire.

Size
Length up to 100 mm.

Distribution
South African endemic. Agulhas Bank (west of Cape Town to Tsitsikamma), 100–200 m.

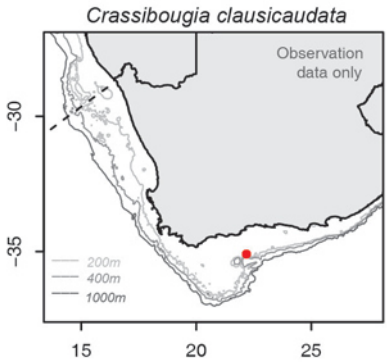
Similar species
Smooth specimens resemble *Africolaria rutila,* but that species attains a larger size, has weaker columella pleats and an indistinct parietal spiral ridge. The spire is also proportionately longer in *A. rutila*, almost equalling the length of the aperture.

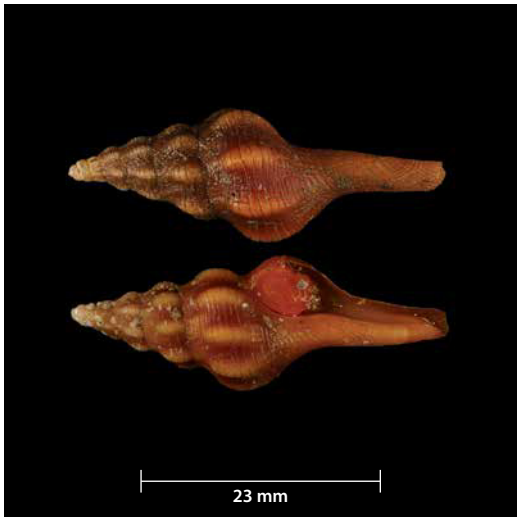
References
Marais JP and Kilburn RN. 2010. Fasciolariidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa*. Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 112.

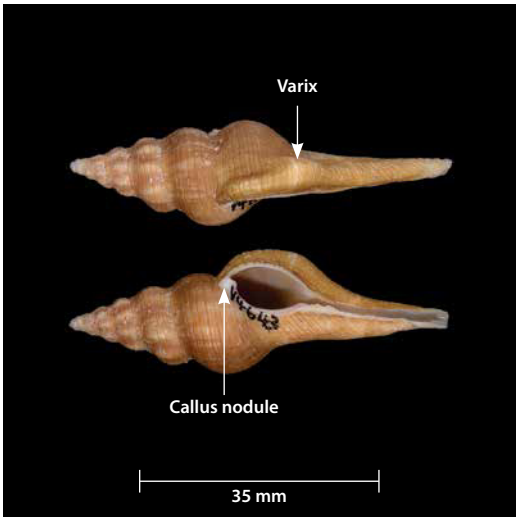
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 136.

Crassibougia clausicaudata (Fusin)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Fasciolariidae
Genus:	*Crassibougia*
Species:	*clausicaudata*
Common name:	Tsitsikamma spindle shell







Distinguishing features

Shell moderately small, narrowly spindle-shaped, robust when adult; spire whorls sculptured with strong, widely-spaced, rounded axial ribs, these much weaker or scarcely evident on last adult whorl; spiral sculpture of low, flat-topped spiral cords, separated by narrow incised grooves of alternating strength; siphonal canal long with a narrow slit-like opening; aperture of mature specimens with a strong callus nodule just below insertion of outer lip and a well-developed varix behind outer lip.

Colour

Shell orange-brown when fresh, the axial ribs usually somewhat paler; aperture whitish. Animal orange-red.

Size

Length up to 60 mm.

Distribution

South African endemic. Agulhas Bank (Still Bay to Port Alfred), 50–150 m.

Similar species

Crassibougia hediae occurs off Transkei and KwaZulu-Natal, but in that species the spiral cords are more rounded and evenly spaced, and the axial ribs continue onto the last adult whorl.

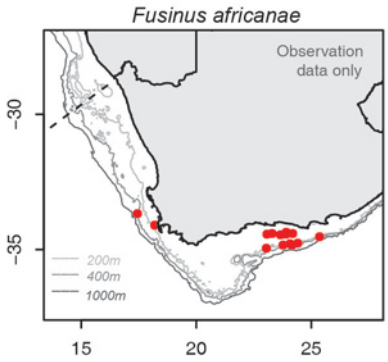
References

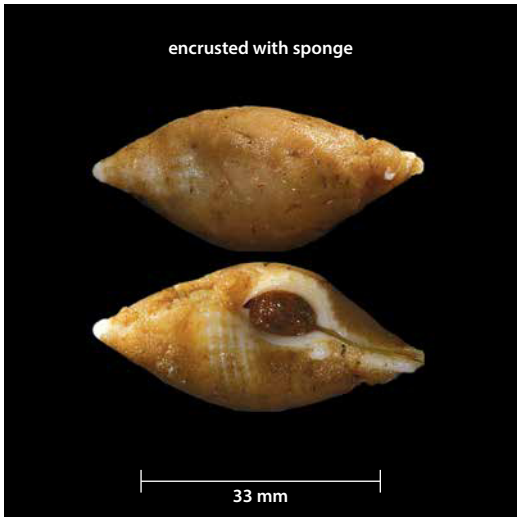
Marais JP and Kilburn RN. 2010. Fasciolariidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa*. Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 136 (as *Pseudolatirus clausicaudatus*).

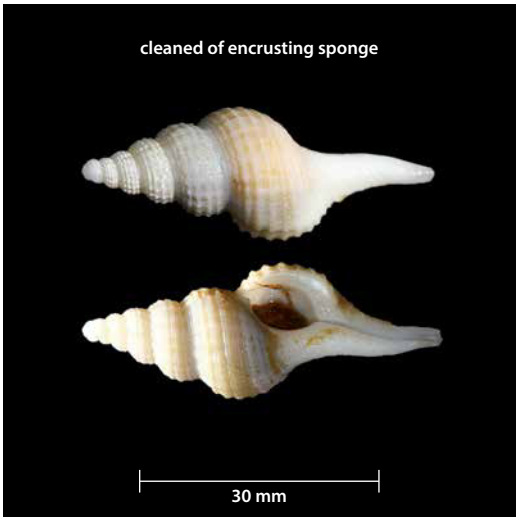
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods*. Published by the authors. p. 148 (as *Pseudolatirus clausicaudatus*).

Fusinus africanae (FusAfr)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Fasciolariidae
Genus:	*Fusinus*
Species:	*africanae*
Common name:	Africana spindle shell







Distinguishing features

Shell small, relatively robust, spindle-shaped, with rounded whorls and a strongly indented suture; spire about three-quarters total length of aperture; sculptured by distinct, rather flat, spiral cords and close-set, rounded axial ribs (weaker on body whorl); siphonal canal long, the opening very narrow; protoconch large. Axial ribs almost absent in some individuals.

Colour

Shell white to apricot-coloured, usually without further colour pattern; living specimens often thickly encrusted with a brown sponge coating.

Size

Adult individuals rarely more than 45 mm in length.

Distribution

South African endemic. Agulhas Bank (Cape Peninsula to Algoa Bay), 100–300 m.

Similar species

Fusinus hayesi has a less robust shell with fewer, stronger axial ribs and more angular spiral cords.

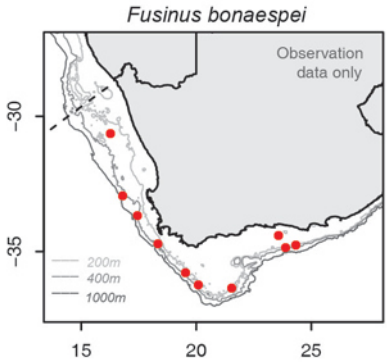
References

Marais JP and Kilburn RN. 2010. Fasciolariidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa*. Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 114.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 136.

Fusinus bonaespei (FusBon)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Fasciolariidae
Genus:	*Fusinus*
Species:	*bonaespei*
Common name:	Good Hope spindle shell



Distinguishing features

Shell spindle-shaped with rounded whorls and strongly indented suture; spire equal to, or slightly shorter than, total length of aperture; siphonal canal long and slender; sculpture of narrow spiral cords with intermediary spiral threads; axial sculpture of distinct axial ribs on early spire whorls, but these not evident on later whorls; inner lip without columella pleats; interior of outer lip smooth.

Colour

Shell white with pale horn-brown periostracum, frequently flaking off. Animal creamy-white.

Size

Length up to 110 mm.

Distribution

South African endemic. West coast and Agulhas Bank (Cape Columbine to Algoa Bay), 50–600 m.

Similar species

Resembles *Fusinus ocelliferus*, but *F. bonaespei* is smaller and more slender, has a longer spire and lacks brown pigmentation in the shell itself.

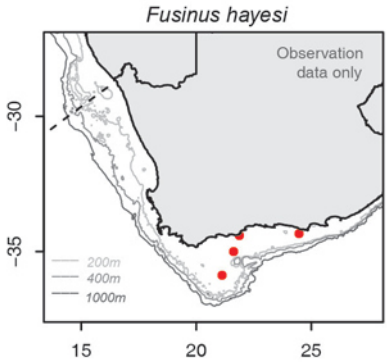
References

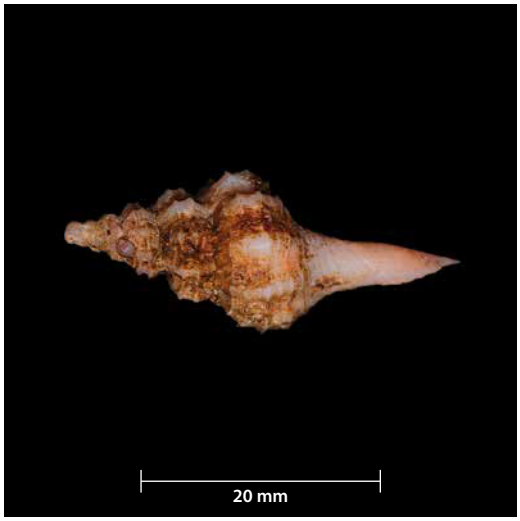
Marais J and Kilburn RN. 2010. Fasciolariidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa*. Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 225.

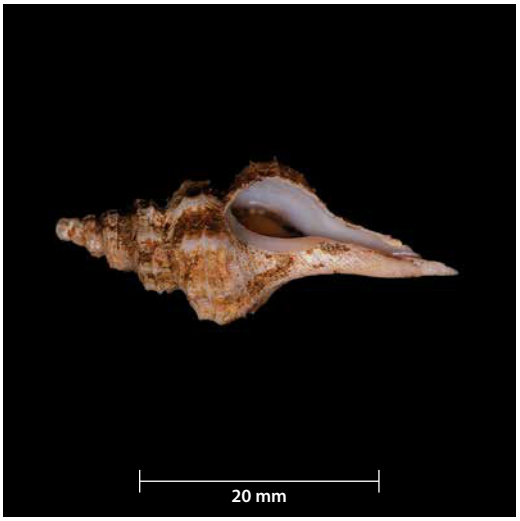
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 137.

Fusinus hayesi (FusHay)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Fasciolariidae
Genus:	*Fusinus*
Species:	*hayesi*
Common name:	Hayes' spindle shell







Distinguishing features
Shell small, broadly spindle-shaped, with rounded whorls and a strongly indented suture; spire about three-quarters total length of aperture; sculptured by crisp, rather narrow (angular), spiral cords and distinct axial ribs, particularly on spire whorls; siphonal canal long and slender.

Colour
White to pale brown, axial ribs often paler than their intervals; periostracum pale horn-brown.

Size
Length up to 60 mm.

Distribution
South African endemic. Eastern Agulhas Bank, 100–150 m.

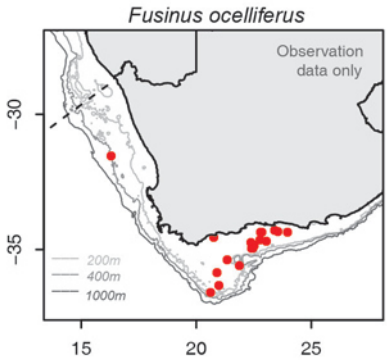
Similar species
Fusinus africanae is another small species, but the sculpture of *F. hayesi* is coarser and more angular, particularly on the spire whorls.

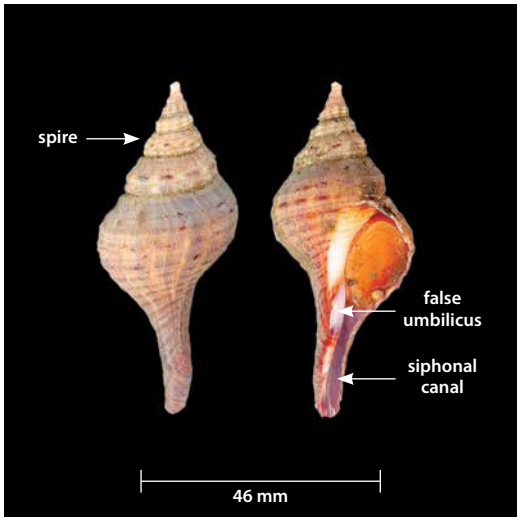
References
Marais JP and Kilburn RN. 2010. Fasciolariidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa*. Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 116.

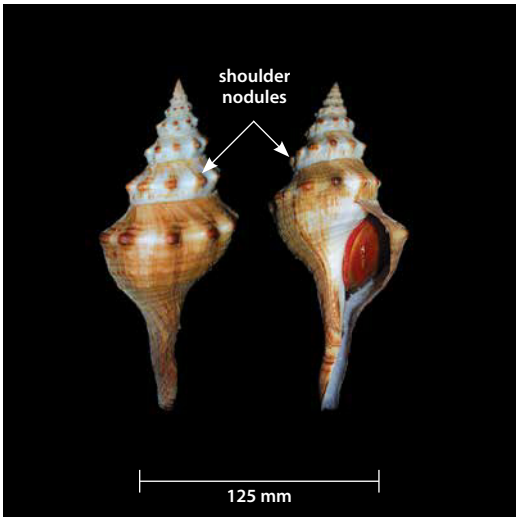
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 139.

Fusinus ocelliferus (FusOce)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Fasciolariidae
Genus:	*Fusinus*
Species:	*ocelliferus*
Common name:	Spotted spindle shell







Distinguishing features

Shell narrowly to broadly spindle-shaped; spire half to three-quarters total length of aperture; siphonal canal long and slender (up to one-third total shell length), often somewhat curved; sculpture of coarse, flattened spiral ridges, but strength of sculpture very variable; some specimens with a distinct shoulder bearing rounded nodules; a deep false umbilicus commonly present beside base of siphon in mature specimens; inner lip lacking columella pleats; interior of outer lip smooth.

Colour

Shell whitish; spiral ridges frequently spotted or mottled with brown, shoulder when present usually with darker brown spots, particularly on nodules; periostracum horny-brown, somewhat velvety, frequently flaking off. Animal orange-red.

Size

Length up to 160 mm.

Distribution

South African endemic. Namaqualand, West coast to KwaZulu-Natal South coast, infratidal to 150 m, perhaps to 300 m.

Similar species

Lack of columella pleats on the inner lip and presence of a false umbilicus distinguish this species from similarly large species of *Africolaria* and *Kilburnia*. Attains a larger size than *Fusinus bonaespei* and has a shorter spire.

References

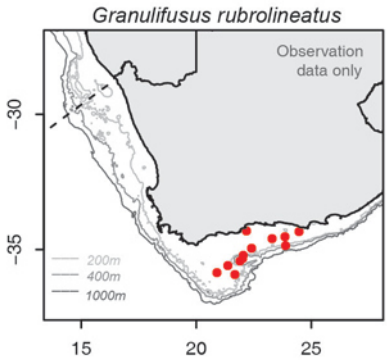
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2016. *Two Oceans. A guide to the marine life of southern Africa.* Fourth edition. Struik Nature. Cape Town. p. 194.

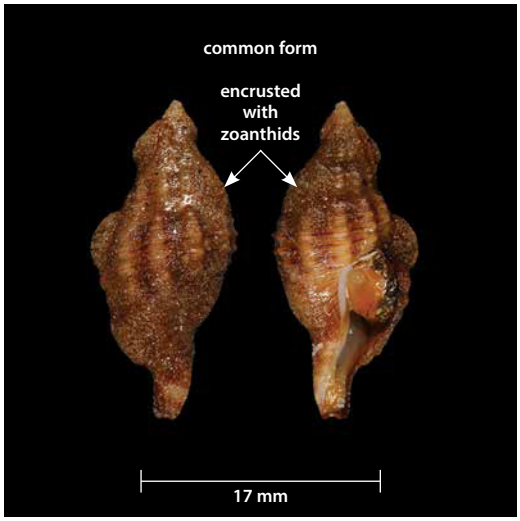
Marais JP and Kilburn RN. 2010. Fasciolariidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa*. Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 118 (as *F. ocellifer*).

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 140.

Granulifusus rubrolineatus (GraRub)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Fasciolariidae
Genus:	*Granulifusus*
Species:	*rubrolineatus*
Common name:	Red-striped spindle shell





Distinguishing features
Shell small, broadly spindle-shaped; sculptured with rounded axial ribs crossed by crisp spiral ridges, between which are fine intermediary spiral threads; variable in shell width and strength of axial ribs; siphonal canal relatively short; inner lip not strongly calloused.

Colour
Dirty white to pale orange-brown with reddish-brown spiral ridges; some specimens with intervals between axial ribs darker brown; reddish-brown colour of spiral ridges often interrupted where these cross the axial ribs; aperture glossy white. Shell often encrusted with other marine organisms (zoanthids).

Size
Length rarely more than 40 mm, often less than 30 mm.

Distribution
South African endemic. Agulhas Bank and East coast, mostly between 100 and 200 m, living on substrata of coarse sand.

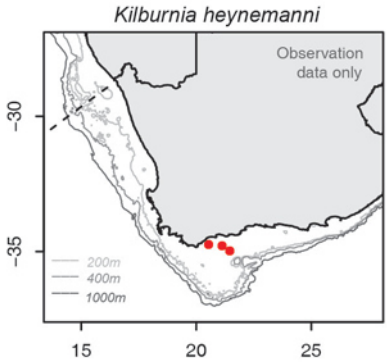
Similar species
Small size, reddish-brown spiral cords and relatively short siphonal canal render this species quite distinctive. Evidently quite a variable species in terms of strength of sculpture. More slender specimens with a longer, narrower siphonal canal and continuous reddish-brown ridges occur from the southern Transkei northwards. These have been identified as the East African *Granulifusus poppei*.

References
Marais JP and Kilburn RN. 2010. Fasciolariidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa*. Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 126.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 141.

Kilburnia heynemanni (FasLug)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Fasciolariidae
Genus:	*Kilburnia*
Species:	*heynemanni*
Common name:	Agulhas horse conch



Distinguishing features

Shell large, broadly spindle-shaped, spire about half total length of aperture; whorls with distinct shoulder bearing strong, widely-spaced nodules; body whorl smooth or spirally ridged; inner lip expanded at base of siphonal canal to form a strong fold, with one to two weaker pleats above this; parietal region with a crisp in-running ridge just below insertion of outer lip; outer lip not sharply drawn in at its base; interior of outer lip smooth. Specimens from shallow water are smaller and have a crenulate outer lip.

Colour

Cream to pale orange-brown, with a darker yellowish-brown to dark brown periostracum.

Size

Length up to 135 mm.

Distribution

South African endemic. Agulhas Bank (west to False Bay) and Transkei shelf, 25–100 m.

Similar species

Kilburnia scholvieni is larger (length up to 220 mm), has weaker shoulder nodules, a narrower siphonal canal and a higher spire. Nodular specimens of *Fusinus ocelliferus* lack pleats on the columella, usually possess a distinct false umbilicus and have a longer, narrower siphonal canal. In addition, in *F. ocelliferus* the nodules are browner than the remaining shell.

Notes

Previously considered a subspecies of *Fasciolaria lugubris*.

References

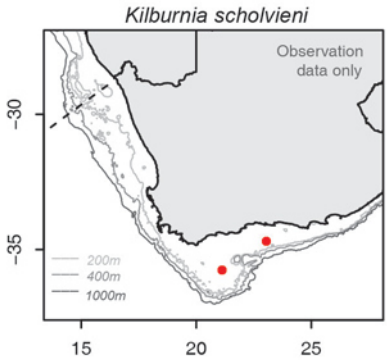
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2016. *Two Oceans. A guide to the marine life of southern Africa.* Fourth edition. Struik Nature. Cape Town. p. 194.

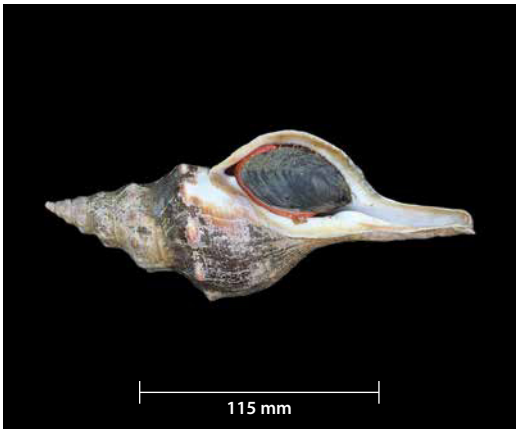
Marais JP and Kilburn RN. 2010. Fasciolariidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa*. Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 111.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 135.

Kilburnia scholvieni (FasSch)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Fasciolariidae
Genus:	*Kilburnia*
Species:	*scholvieni*
Common name:	Cape horse conch





Distinguishing features

Shell very large, spindle-shaped; spire high, about three quarters total length of aperture; whorls rounded, but often with a weak shoulder bearing low nodules; sculpture of fine spiral threads, some specimens with occasional stronger cords; outer lip sharply drawn in at its base to form a relatively slender siphonal canal; inner lip with strong fold at base of siphonal canal with one to two weak columella pleats above this; parietal region with rounded, in-running ridge just below insertion of outer lip; interior of outer lip mostly smooth, but mature specimens often with subterminal row of denticles behind somewhat flaring outer lip.

Colour

Whitish to pale buff or orange brown, nodules often darker brown; periostracum olive-brown to dark brown. Animal orange-red.

Size

Length up to 220 mm and perhaps more.

Distribution

South African endemic. Agulhas Bank (Cape Agulhas to Port Grosvenor), 30–250 m.

Similar species

Kilburnia heynemanni has a shorter spire and its outer lip is not so sharply drawn in prior to the siphonal canal. It never attains as large a size as *K. scholvieni.*

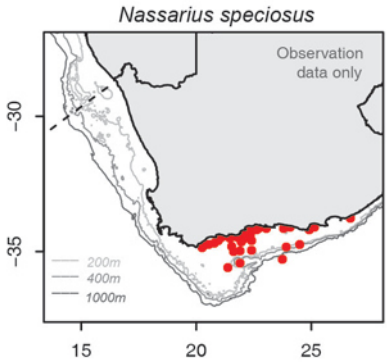
References

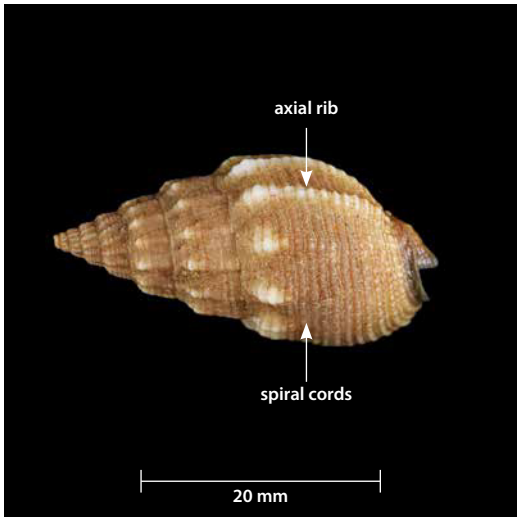
Marais JP and Kilburn RN. 2010. Fasciolariidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa.* Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 112.

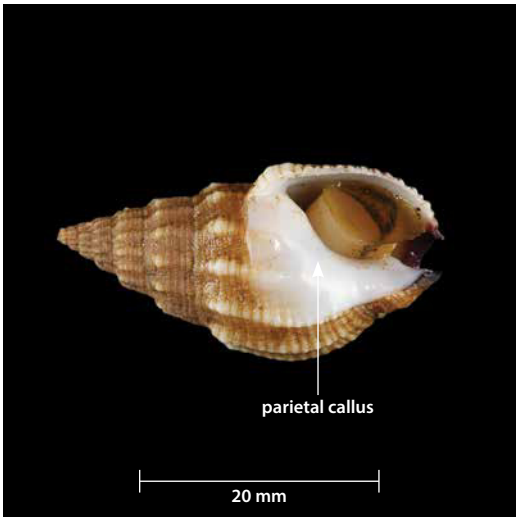
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 135.

Nassarius speciosus (PerFor)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Nassariidae
Genus:	*Nassarius*
Species:	*speciosus*
Common name:	Shouldered/Purple-lipped dog-whelk







Distinguishing features

Shell small, robust, with strong, widely spaced axial ribs crossed by finer, close-set spiral cords; whorls shouldered, ribs rendering shoulder nodular; ribs weaker on last part of body whorl; aperture with distinct siphonal notch; inner lip with well-developed callus extending over columella and parietal region; outer lip with subterminal external thickening and low internal ridges.

Colour

Shell whitish to buff, axial ribs paler; aperture and callus white, siphonal notch dark purplish-brown when fresh; surface of living shell usually with a khaki-brown periostracum-like layer of encrusting organisms.

Size

Length up to 35 mm.

Distribution

South African endemic. West coast to Agulhas Bank (southern Namibia to western Transkei), shallow water to 130 m, possibly deeper.

Similar species

There are many species of *Nassarius* occurring off the South African coast, but the combination of characteristics exhibited by *N. speciosus* renders it quite easy to identify.

References

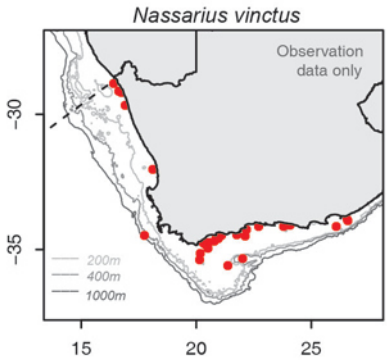
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2016. *Two Oceans. A guide to the marine life of southern Africa.* Fourth edition. Struik Nature. Cape Town. p. 196.

Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg. Macmillan. p. 101.

Marais JP and Kilburn RN. 2010. Nassariidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa.* Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 170.

Nassarius vinctus (BurNup)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Nassariidae
Genus:	*Nassarius*
Species:	*vinctus*
Common name:	Violet-mouthed dog-whelk



Distinguishing features
Shell small, spire relatively elongated with weakly convex whorls; periphery rounded; sculpture variable, often reticulate, comprising low axial ribs crossed by broad, flat, spiral cords with narrow intervals, but axial ribs sometimes weak or absent; inner lip with thin, glossy callus spreading over parietal region; outer lip not conspicuously thickened, internally smooth or with weak in-running ridges; siphonal notch wide and shallow.

Colour
Fresh specimens reddish-brown to purplish-brown, usually with pale spiral bands; axial ribs, if present, paler; inner lip and interior of aperture violet; colour intensity fading with time. Shell frequently encrusted with other marine organisms and surface often chalky or etched.

Size
Length up to 22 mm.

Distribution
South African endemic. West coast and Agulhas Bank (northern Namibia to western Transkei), 10–150 m.

Similar species
There are many species of *Nassarius* occurring off the South African coast, but the shape, sculpture and colouration of *N. vinctus* render it quite distinctive.

Notes
A common species that may occur at high population densities on sandy and muddy substrata.

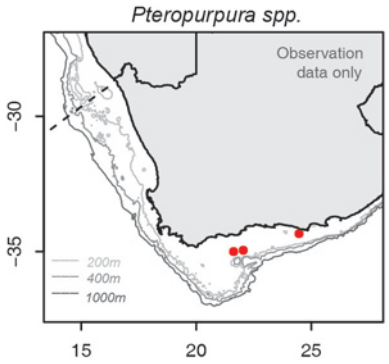
References
Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg. Macmillan. p. 101.

Marais JP and Kilburn RN. 2010. Nassariidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa*. Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 172 .

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 133.

Pteropurpura spp. (PteTra)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Muricidae
Genus:	*Pteropurpura*
Species:	spp.
Common name:	Stag shells



Distinguishing features
Shell small, biconic (two cones); siphonal canal well-developed, with very narrow channel; sculptured by three very strong axial ribs (varices) bearing recurved spines; largest spines at shoulder, decreasing in size on base and siphonal canal.

Colour
White to pale brown, some with a pink/orange undertone.

Size
Length up to 35 mm.

Distribution
South African endemic. Continental shelf off the West, South and East coasts, subtidal to 300 m.

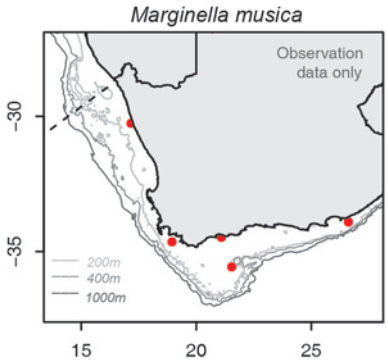
Similar species
Several species occur off the South African coast. They are easy to identify as stag shells, but distinguishing between the species is difficult and requires some experience. The species illustrated here is *Pteropurpura quinqelobata*, which is one of the more commonly found species on the Agulhas Bank.

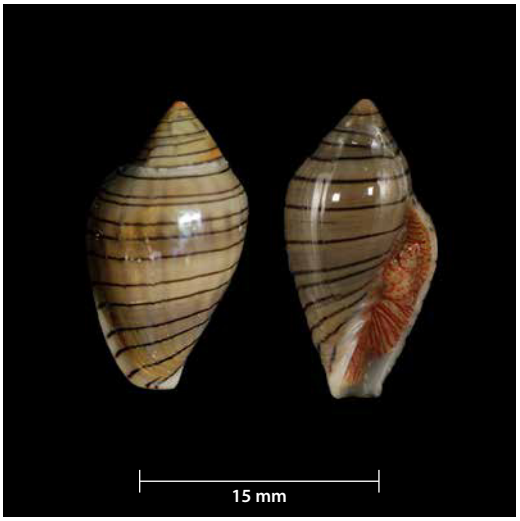
References
Marais JP and Kilburn RN. 2010. Muricidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa.* Vol. 1. Groenkloof. Centre for Molluscan Studies. pp. 202–207.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. pp. 100–101.

Marginella musica (MarMus)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Marginellidae
Genus:	*Marginella*
Species:	*musica*
Common name:	Musical margin shell





Distinguishing features
Shell shape and glossy surface typical of *Marginella* species; striped colour pattern distinctive; adult shells relatively solid, outer lip thickened, lower part of columella with four oblique pleats.

Colour
Pale brown to greyish-brown with fine black spiral lines. Animal cream to pale orange, with a pattern of fine red lines on its large foot.

Size
Length up to 22 mm.

Distribution
West coast and Agulhas Bank (Namibia to Algoa Bay), 40–550 m.

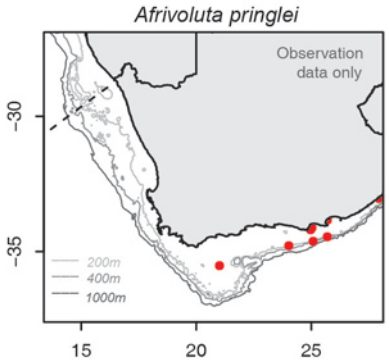
Similar species
Slender, thinner-shelled specimens from deeper water are known as *Marginella diadochus*, but it is unclear whether this is a bathymetric form or a genetically distinct species.

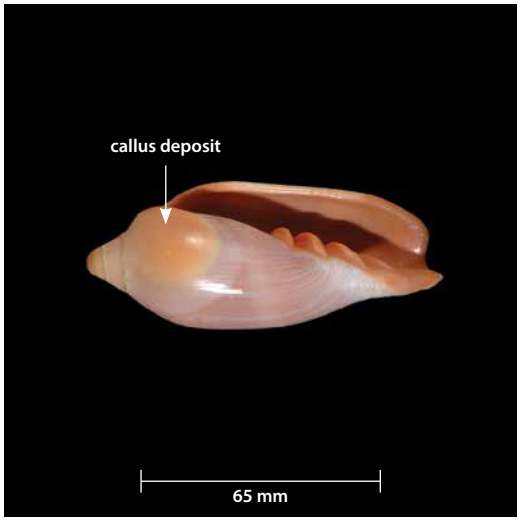
References
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2016. *Two Oceans. A guide to the marine life of southern Africa.* Fourth edition. Struik Nature. Cape Town. p. 200.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 176.

Afrivoluta pringlei (Afrivo)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Marginellidae
Genus:	*Afrivoluta*
Species:	*pringlei*
Common name:	Giant orange margin shell





Distinguishing features
Shell large, resembling a volute; body whorl oblong, apex bluntly rounded; a well-developed, oval callus deposit adjacent to parietal region; surface smooth and glossy; aperture narrow and elongate; basal half of inner lip with four strong, oblique pleats; outer lip slightly thickened, its edge convex in a side view, internally smooth.

Colour
Deep pinkish-orange to orange-brown, body whorl with two or more broad bands of a paler shade; ventral callus cream coloured to pinkish-brown.

Size
Length up to 120 mm.

Distribution
South African endemic. Eastern Agulhas Bank (Knysna area to western Transkei), 70–500 m.

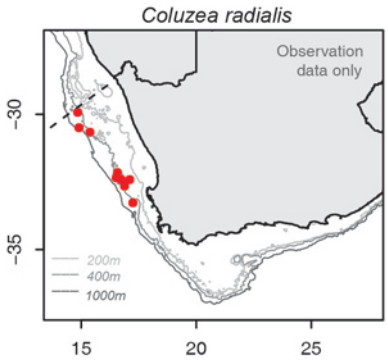
Similar species
None.

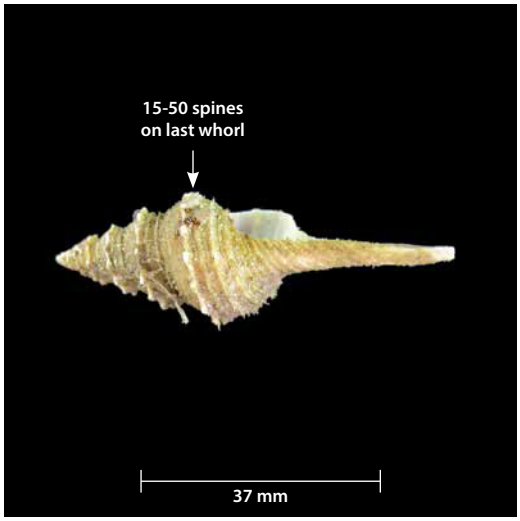
References
Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg. Macmillan. p. 114.

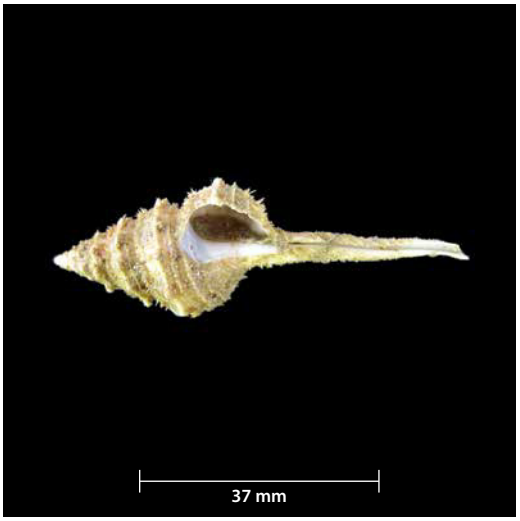
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 172.

Coluzea radialis (ColRad)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Turbinellidae
Genus:	*Coluzea*
Species:	*radialis*
Common name:	Benguela pagoda shell







Distinguishing features
Shell relatively thin, siphonal canal long, slender and straight; periphery with a spiral row of bluntly triangular spines (15–50 on last whorl); elsewhere sculptured by spiral cords, most prominent below periphery and on base of siphonal canal; some specimens with low axial ribs associated with peripheral spines.

Colour
Shell uniformly white.

Size
Length up to 75 mm.

Distribution
South African endemic. West coast, off Atlantic Cape region (Alexander Bay to Cape Point), 160–420 m.

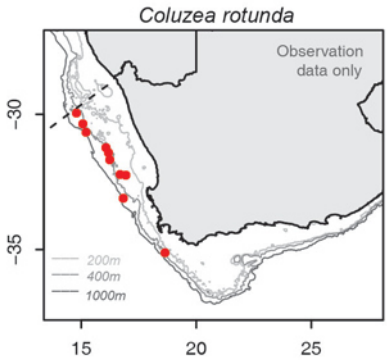
Similar species
Coluzea rotunda, also from the West Coast, lacks an angular peripheral keel and has proportionately stronger axial sculpture. *Columbarium formossisimum* (Agulhas Bank) has much coarser axial sculpture and fewer peripheral spines (10–11 on last whorl).

References
Marais JP and Kilburn RN. 2010. Turbinellidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa*. Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 307.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 116.

Coluzea rotunda (Fusinu)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Turbinellidae
Genus:	*Coluzea*
Species:	*rotunda*
Common name:	Rounded pagoda shell



Distinguishing features
Shell relatively thin, siphonal canal long, slender and straight; whorls rounded, periphery at most with low spines, mostly on apical spire whorls; elsewhere sculptured by rounded axial ribs crossed by spiral cords, most prominent below periphery.

Colour
Shell uniformly white, with pale khaki-brown periostracum.

Size
Length up to 75 mm.

Distribution
South African endemic. West coast, off Atlantic Cape region (Alexander Bay to Cape Point), 200–1 400 m.

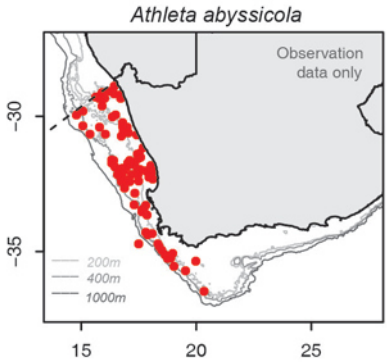
Similar species
See *Coluzea radialis*, which has an angular peripheral keel not present in *C. rotunda* and weaker axial sculpture.

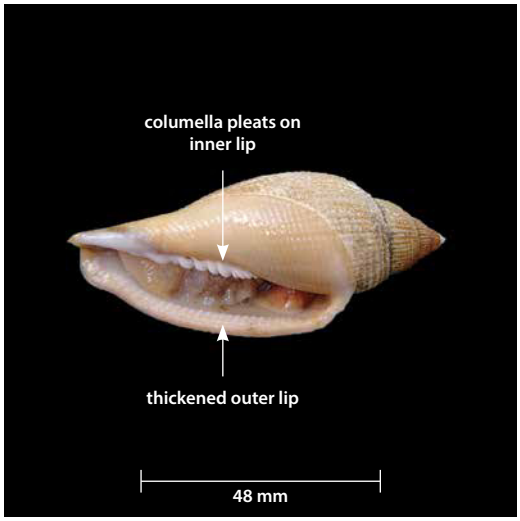
References
Marais JP and Kilburn RN. 2010. Turbinellidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa*. Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 307.

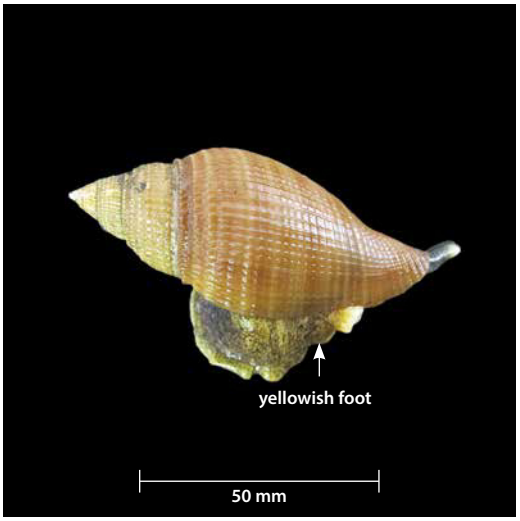
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 116.

Athleta abyssicola (VolBos)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Volutidae
Genus:	*Athleta*
Species:	*abyssicola*
Common name:	Yellow-foot hatch shell







Distinguishing features

Shell moderately elongate, but shell width and spire height variable; aperture long and narrow, comprising well over half shell length; spire conical; sculpture cancellate (hatched), comprising relatively fine axial ribs and spiral cords of more or less equal strength; much of ventral surface with a thin, transparent glaze extending from inner lip; inner lip itself with numerous columella pleats, progressively stronger anteriorly; outer lip slightly reflected, its inner margin thickened and bearing numerous ridge-like denticles.

Colour

Surface dull, often etched or eroded; fresh specimens biscuit-coloured to pale orangish- or pinkish-brown; interior of aperture pale apricot, columella pleats white. Surface often encrusted with muddy deposit. Animal greyish-white to yellow, heavily speckled with greyish markings.

Size

Length up to 105 mm.

Distribution

West coast, off Atlantic Cape region (Walvis Bay to Cape Agulhas), 100–550 m.

Similar species

Compare with *A. lutosa*. *A. boswellae*, a smaller species (length up to 60 mm) ranging from Tsitsikamma to Saldanha Bay, differs from *A. abyssicola* in having coarser sculpture with fewer, stronger axial ribs and weaker spiral cords, a double row of prickly subsutural nodules and often a pattern of spiral rows of brownish-orange squares. *A. disparilis* from the Agulhas Bank resembles *A. boswellae*, but is even smaller (length up to 38 mm), has a lower spire, more blunt subsutural nodules and a uniformly pale colouration.

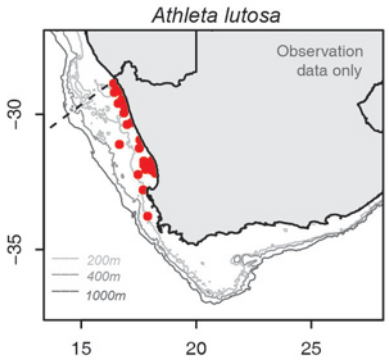
References

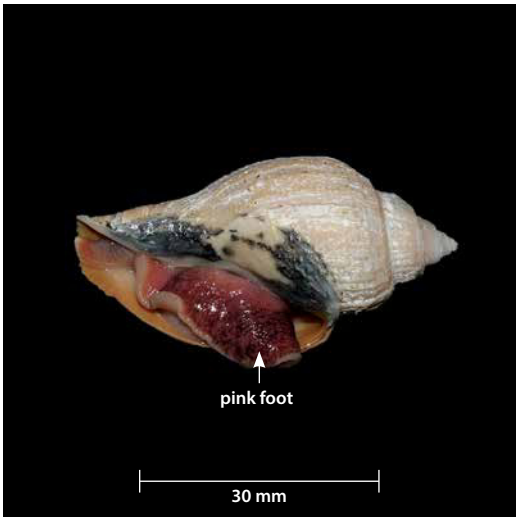
Aiken RP. 2010. Volutidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa.* Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 316.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 162.

Athleta lutosa (VolAby)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Volutidae
Genus:	*Athleta*
Species:	*lutosa*
Common name:	Pink-foot hatch shell





Distinguishing features

Shell relatively broad with a wide aperture; shell thickness very variable; spire conical with convex whorls and indented suture; sculpture less obviously cancellate (hatched), dominated by crisp spiral cords crossed by irregular growth lines; ventral surface with a thin, transparent glaze extending from inner lip; columella with four to six low pleats, sometimes in pairs; outer lip not reflected, its inner margin usually weakly thickened and with indistinct ridges. Lip and callus frequently deformed.

Colour

Surface dull, usually etched or eroded; fresh specimens pale cream to apricot-pink, most obvious inside aperture; columella pleats white. Surface often encrusted with muddy deposit or stained reddish-brown. Animal pinkish to mauve, heavily speckled with grey-black markings.

Size

Length up to 110 mm, but usually considerably smaller (60–70mm).

Distribution

West coast, Atlantic Cape (Angola to Saldanha Bay), 20–220 m.

Similar species

Similar to *Athleta abyssicola*, but broader, outer lip less strongly thickened and not reflected, sculpture less obviously cancellate, fewer columella pleats and foot pinkish.

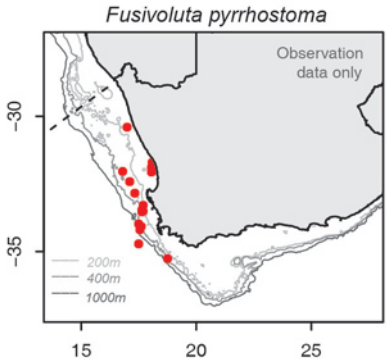
References

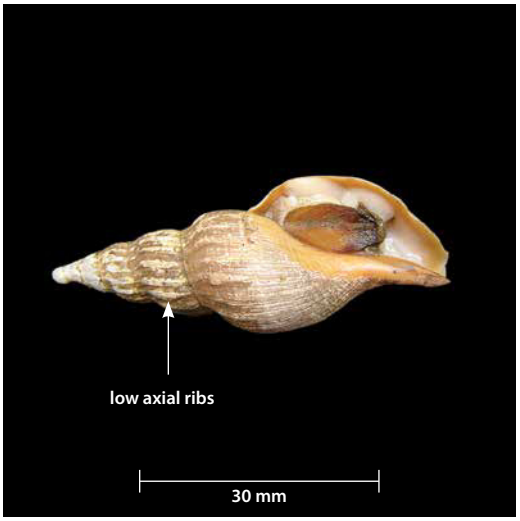
Aiken RP. 2010. Volutidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa.* Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 319.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 165.

Fusivoluta pyrrhostoma (FusPyr)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Volutidae
Genus:	*Fusivoluta*
Species:	*pyrrhostoma*
Common name:	Flame-mouthed volute





Distinguishing features

Shell spindle-shaped, siphonal canal relatively short and dorsally recurved; spire approximately half total length of shell, suture indented; sculpture of low axial ribs, often somewhat curved; base with close-set spiral threads; inner lip and columella smooth; outer lip thin, somewhat flaring, its interior smooth; protoconch (apex) bulbous.

Colour

Pale orange-white to light apricot, with thin olive-brown periostracum; surface commonly badly eroded; interior of aperture glossy, deep apricot in fresh specimens, more intense on basal half of inner lip.

Size

Length up to 90 mm.

Distribution

South African endemic. West coast and western Agulhas Bank (Lambert's Bay to Mossel Bay), 70–400 m.

Similar species

Fusivoluta lemaitrei, a slightly smaller species (length up to 70 mm), has stronger axial ribs, weakly angled at shoulder, a deeper orange-brown colour and a larger, whitish protoconch.

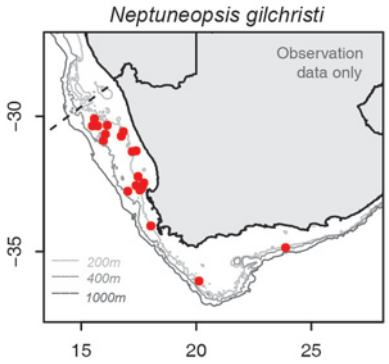
References

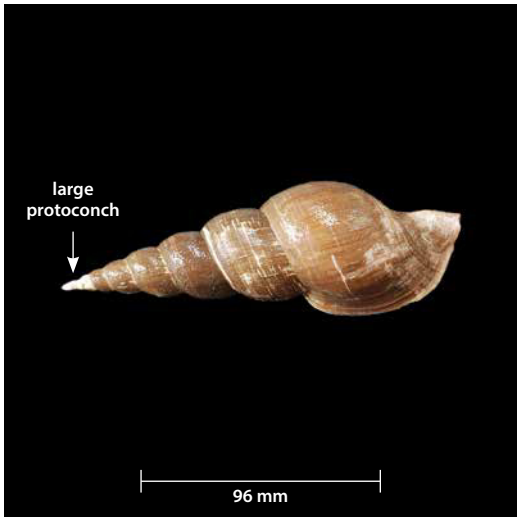
Aiken RP. 2010. Volutidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa. Vol. 1. Groenkloof. Centre for Molluscan Studies.* p. 329.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 169.

Neptuneopsis gilchristi (Neptun)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Volutidae
Genus:	*Neptuneopsis*
Species:	*gilchristi*
Common name:	Gilchrist's volute





Distinguishing features

Shell large and light, spire high with convex (rounded outward) whorls and indented suture; sculpture of very fine, dense spiral threads; aperture wide, somewhat flaring and tapering to a short siphonal canal; inner lip lacking pleats, but with a thin, smooth callus glaze. Protoconch (apex) bud-shaped, disproportionately large. Operculum smaller than aperture.

Colour

Pale buff to pale orange-brown with a thin, persistent lustreless olive-brown periostracum; some specimens with diffuse paler spiral bands.

Size

Length up to 240 mm, but usually 120–150 mm.

Distribution

South African endemic. West and South coast, Agulhas Bank, 60–500 m.

Similar species

Africolaria rutila has a longer siphonal canal and a smaller protoconch.

References

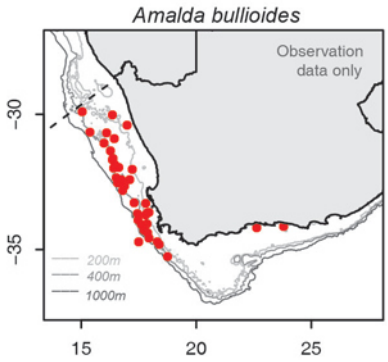
Aiken RP. 2010. Volutidae. *In:* Marais AP and Seccombe AD (eds) *Identification Guide to the Seashells of South Africa.* Vol. 1. Groenkloof. Centre for Molluscan Studies. p. 333.

Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg. Macmillan. p. 111.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 170.

Amalda bullioides (AlmBul)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Olividae
Genus:	*Amalda*
Species:	*bullioides*
Common name:	Bullet amalda



Distinguishing features
Shell bullet-shaped, smooth and glossy; spire and parietal region enveloped in enamel-like callus, covering sutures; aperture elongate, narrowing apically and with a broad siphonal notch; inner lip concave, outer lip thin.

Colour
Fresh shells orange to brown, darkest around suture; body whorl with two narrow white bands separated by a broad orange band; a narrow orange-brown band below lower white band; columella and tip of spire whitish. Old shells much faded.

Size
Length up to 42 mm.

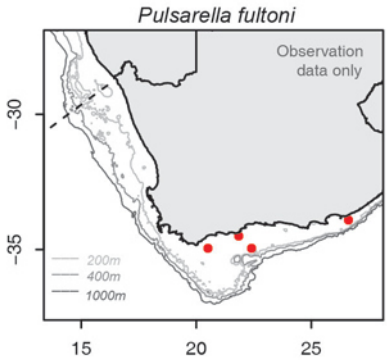
Distribution
South African endemic. West coast and Agulhas Bank, 100–370 m, possibly deeper.

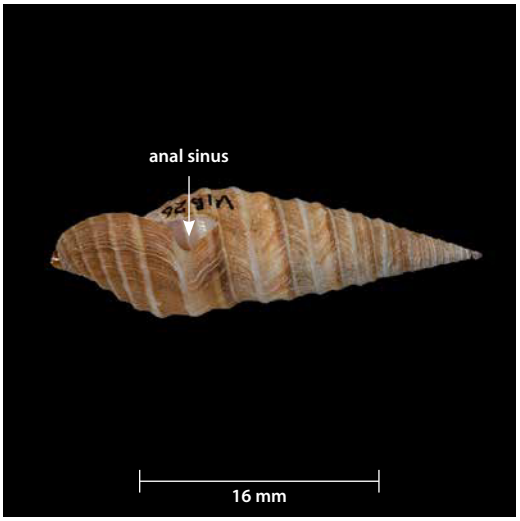
Similar species
Several other species of *Amalda* occur on the Agulhas Bank, but most are considerably smaller than *A. bullioides*. *A. obtusa* is of similar size to *A. bullioides*, but it has a much broader, bluntly rounded spire and a brownish spire callus.

References
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 148.

Pulsarella fultoni (PulFul)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Borsoniidae
Genus:	*Pulsarella*
Species:	*fultoni*
Common name:	Humbug turrid





Distinguishing features
Shell fairly solid, spire elevated, narrowly tapering to sharp point; outer lip thin, with U-shaped anal sinus just below suture; sculptured with widely spaced spiral cords, one just below apical suture, one at periphery (level with basal suture) and a third, between these, also with several narrower cords on base; intervals between cords concave (hollowed inwards).

Colour
Fresh specimens orange-brown to dark brown, spiral cords white; inner lip and base darker purplish-brown. Colour fading in dead specimens.

Size
Length up to 32 mm.

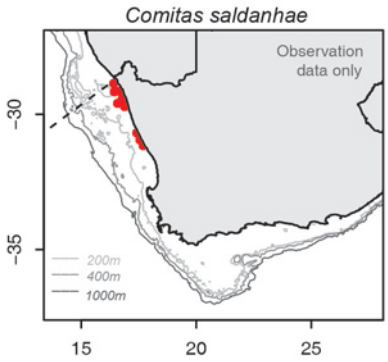
Distribution
South African endemic. Cape Peninsula to Agulhas Bank (from False Bay to western Transkei), 20–85 m.

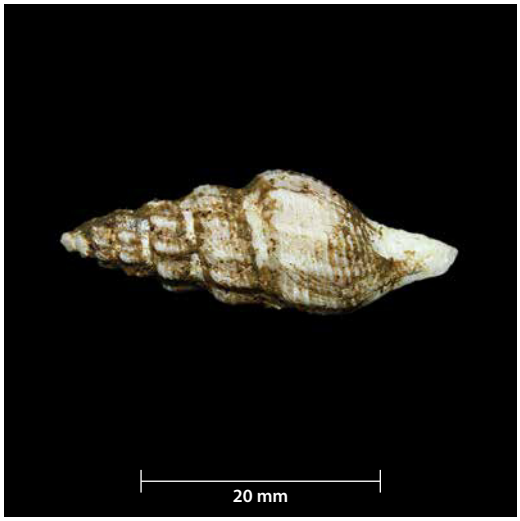
Similar species
None.

References
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 222.

Comitas saldanhae (ComSal)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Pseudomelatomidae
Genus:	*Comitas*
Species:	*saldanhae*
Common name:	Benguela comitas





Distinguishing features
Shell spindle-shaped, with short siphonal canal and elevated spire; whorls shouldered and suture indented; shoulder slope sculptured with spiral threads only, sculpture below shoulder comprising oblique axial ribs crossed by finer spiral threads, base with spiral threads and growth lines only; outer lip with broad, moderately deep, U-shaped anal sinus at shoulder, lip edge flaring outward below this in large specimens.

Colour
Shell chalky white, with dull brown periostracum; apex, ribs and subsutural region frequently eroded; often covered in mud.

Size
Length up to 62 mm, but usually less than 45 mm.

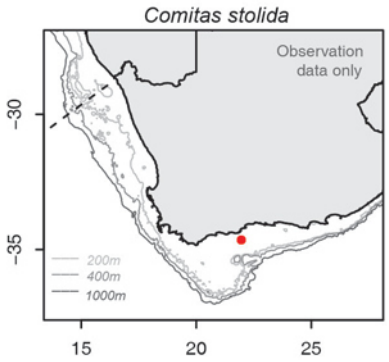
Distribution
West coast (Namibia to west of Cape Point), 50–600 m.

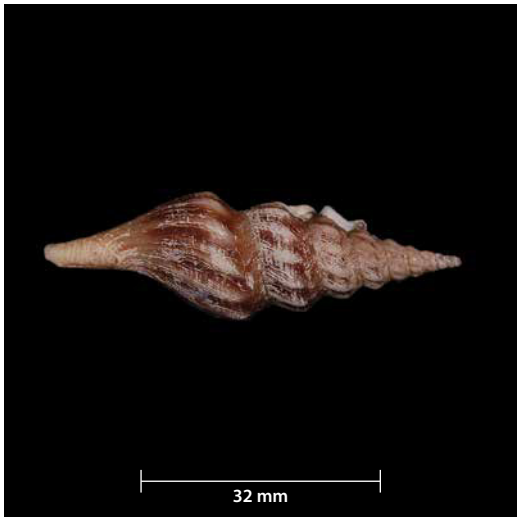
Similar species
None.

References
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 207.

Comitas stolida (ComSto)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Pseudomelatomidae
Genus:	*Comitas*
Species:	*stolida*
Common name:	Agulhas comitas





Distinguishing features
Shell spindle-shaped, with elevated spire; whorls angled at periphery and with distinct, obliquely elongate nodules, somewhat rib-like; shell otherwise sculptured only by growth lines and close-set, microscopic, spiral threads; outer lip with moderately deep, U-shaped anal sinus below suture, lip edge convex below this.

Colour
Brown to reddish-brown, peripheral nodules whitish.

Size
Length up to 55 mm.

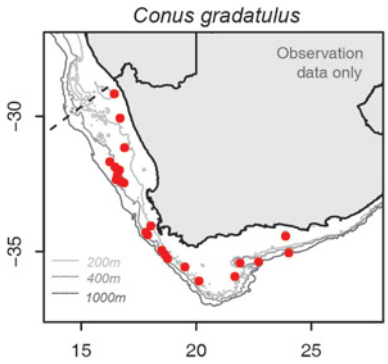
Distribution
South African endemic. South coast, Agulhas Bank, 60–150 m.

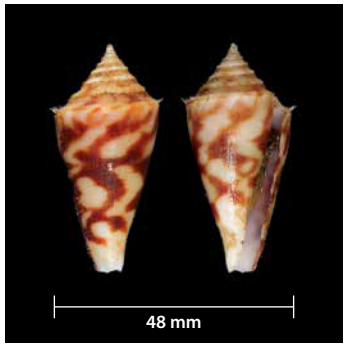
Similar species
Makiyamaia gravis, from the eastern Agulhas Bank and Transkei, is somewhat similar, but is smaller (length up to 32 mm), has a broader shoulder slope and a swollen subsutural cord.

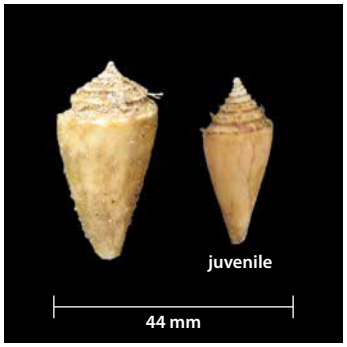
References
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 207.

Conus gradatulus (DenAlg)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Caenogastropoda
Order:	Neogastropoda
Family:	Conidae
Genus:	*Conus*
Species:	*gradatulus*
Common name:	Agulhas cone shell







Distinguishing features
Shell light in weight, body whorl weakly convex, angular at shoulder; spire broadly tapering to a sharp tip, but spire height variable; spire with stepped profile due to angular shoulder; whorls concave above shoulder, essentially smooth; base of body whorl with weak spiral threads, otherwise sculpture comprising only weak growth lines; aperture elongate and narrow, outer lip thin. Operculum very small, oblong-ovate.

Colour
Ground colour white, variously marked with orange-brown or reddish-brown, often in a broad spiral band below shoulder, commonly broken up to form wavy axial stripes, sometimes almost covering whole body whorl; shoulder slope and spire white with occasional orange-brown axial flames. Living specimens with a thin, translucent, olive-yellow periostracum, partially obscuring underlying shell colour pattern; West Coast specimens generally uniformly whitish, lacking colour pattern and often chalky (form *patens*).

Size
Length up to 80 mm.

Distribution
From Namibia (Walvis Bay) and West Coast to Agulhas Bank, 30–500 m.

Similar species
Several other *Conus* species occur on the Agulhas Bank, but these are smaller than *C. gradatulus*, have a less strongly stepped spire and a different colour pattern. They can be difficult to identify. Any cone shells not matching the above description should be recorded as *Conus* spp.

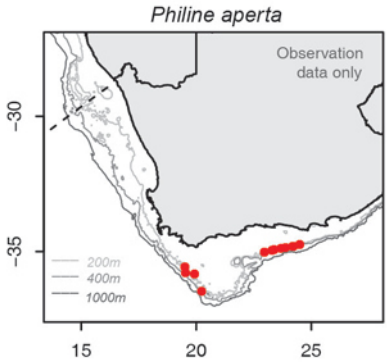
Notes
The West coast *Conus patens* is now considered to belong to the same species.

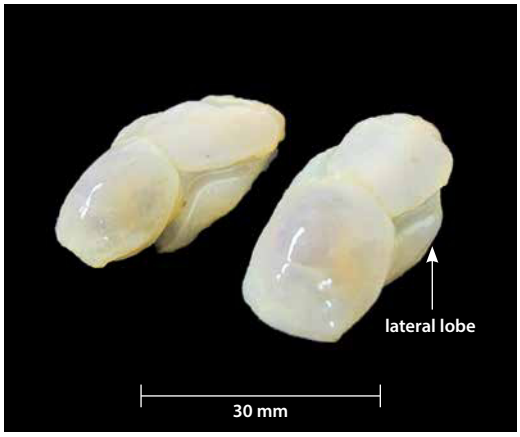
References
Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg. Macmillan. p. 121.

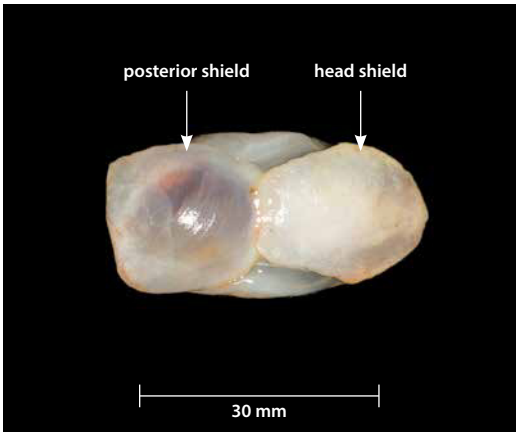
Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 245 (as *Leptoconus*).

Philine aperta (PhiApe)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Cephalaspidea
Family:	Philinidae
Genus:	*Philine*
Species:	*aperta*
Common name:	Headshield/Shelled slug







Distinguishing features
Shell internal, entirely covered by body of animal; body divided into a head shield (flattened for burrowing in sandy substrata), a posterior shield (overlying viscera and internal shell) and two lateral lobes, one on each side. Internal shell thin and translucent.

Colour
Animal uniformly milky white to yellowish, somewhat translucent.

Size
Adult body length 60–70 mm, up to 100 mm.

Distribution
Saldanha Bay, West coast to Mozambique, subtidal to 100 m.

Similar species
Unlikely to be confused with any other South African species.

Notes
A predator on sandy substrata, feeding primarily on other invertebrates, chiefly small molluscs, which are crushed by hard plates occurring in the animal's gizzard. The skin contains gland cells that secrete sulphuric acid to deter predators. Long thought to be the same as the species occurring in Europe, but now considered distinct (Price *et al.*, 2011).

References
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2016. *Two Oceans. A guide to the marine life of southern Africa.* Fourth edition. Struik Nature. Cape Town. p. 204.

Gosliner, T. 1987. *Nudibranchs of Southern Africa. A Guide to Opisthobranch Molluscs of Southern Africa.* Sea Challenger. Monterey. p. 41,

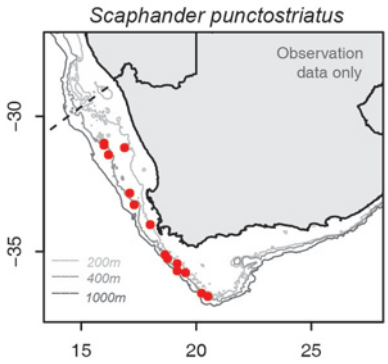
Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg. Macmillan. p. 131.

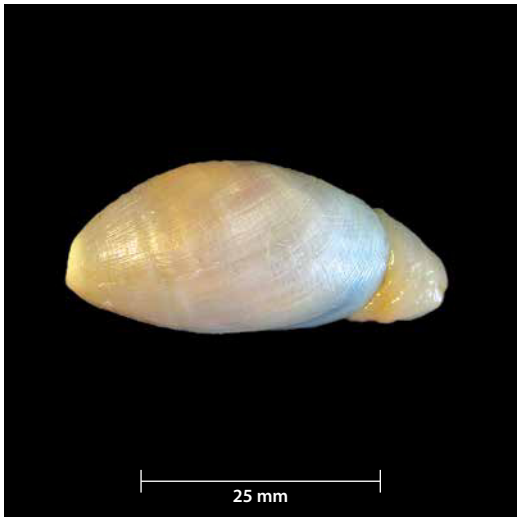
Price RM, Gosliner TM and Valdes A. 2011. Systematics and phylogeny of *Philine* (Gastropoda: Opisthobranchia), with emphasis on the *Philine aperta* species complex. *Veliger* 51(2): 1–58.

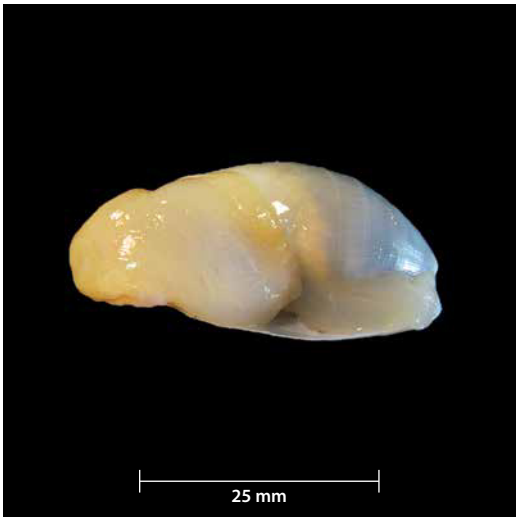
Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay.* Cape Town. Southern Underwater Research Group Press. p. 13.

Scaphander punctostriatus (Scapha)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Cephalaspidea
Family:	Scaphandridae
Genus:	*Scaphander*
Species:	*punctostriatus*
Common name:	Giant canoe bubble







Distinguishing features
Shell elongate and rather bubble-like, thin and fragile; no spire evident, body whorl expanding rapidly so as to cover earlier whorls; smooth but under a microscope sculptured by fine spiral lines of tiny elongate pits (punctations); aperture elongate, very broad basally. Animal large, cannot retract completely into shell.

Colour
Shell whitish with a thin yellowish periostracum, sometimes with faint, darker spiral bands. Animal yellowish-white.

Size
Length 30–40 mm.

Distribution
Outer continental shelf and upper slope, West coast and Agulhas Bank, 170–2700 m (also much of the North Atlantic, Gulf of Mexico and Mediterranean).

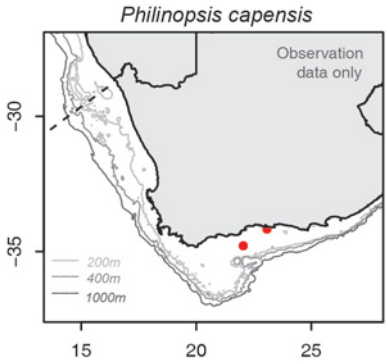
Similar species
None.

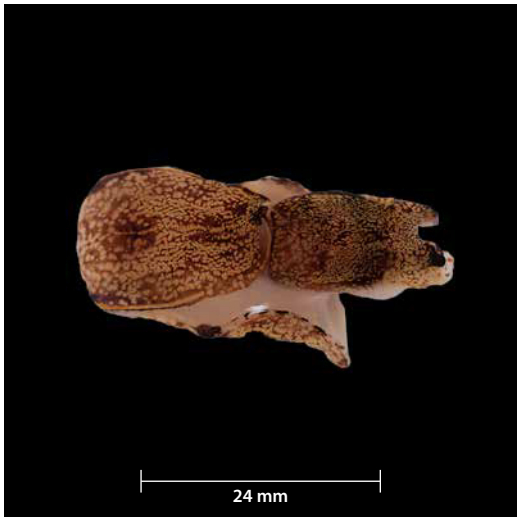
References
Barnard KH. 1963. Contributions to the knowledge of South African marine Mollusca. Part IV. Gastropoda: Prosobranchiata: Rhipidoglossa, Docoglossa. Tectibranchiata. Polyplacophora. Solenogastres. Scaphopoda. *Annals of the South African Museum* 47(2): 201–360. p. 322.

Steyn DG and Lussi M. 2005. *Offshore shells of southern Africa: A pictorial guide to more than 750 gastropods.* Published by the authors. p. 269.

Philinopsis capensis (PhiCap)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Nudibranchia
Family:	Aglajidae
Genus:	*Philinopsis*
Species:	*capensis*
Common name:	Slipper/Philip's slug





Distinguishing features
Mottled brown-black and cream appearance covered with white or yellow spots. Posterior has two tails of equal length. Body consists of three segments joined together.

Colour
Mottled brown-black on outside with cream/opaque inside colour.

Size
At least 40 mm.

Distribution
False Bay to East London, South Africa.

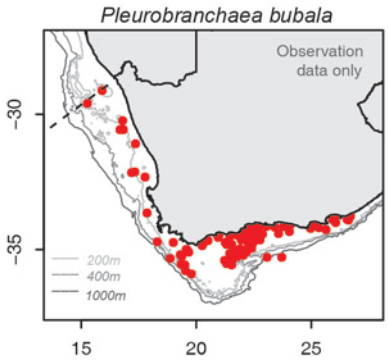
Similar species
Pleurobranchaea bubala has a similar colouration and mottling, but *Philinopsis capensis* is much firmer in texture and made up of three distinct segments.

References
Identified from photograph by Georgina Jones and Terry Gosliner.

Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay*. Southern Underwater Research Group Press. p. 14 (104 pp.)

Pleurobranchaea bubala (PleBub)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Pleurobranchomorpha
Family:	Pleurobranchaeidae
Genus:	*Pleurobranchaea*
Species:	*bubala*
Common name:	Warty pleurobranch



Distinguishing features
Honeycomb, mottled colouration of brown/black/yellow on dorsal surface. Very soft, fleshy body with a slimy surface texture. If left in water, two rhinophores (chemosensory tentacles) located dorso-laterally often appear and a tube-like mouth. Branchia (feather-like gills) are clearly visible from the ventral view on the right side of the animal, as is the foot. *Pleurobranchaea* has a very soft body that does not retain shape well out of water.

Colour
Mottled brown/yellow/black colouration on dorsal surface, which often wears off on the most elevated areas to be translucent. Ventral body cream to white.

Size
Average 60 to 70 mm.

Distribution
West coast, South coast to Port Elizabeth.

Similar species
P. tarda is smaller and has a continuous smooth dorsal surface.

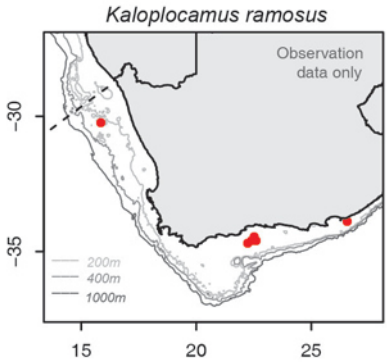
References
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2016. *Two Oceans. A guide to the marine life of southern Africa.* Fourth edition. Struik Nature. Cape Town. p. 206.

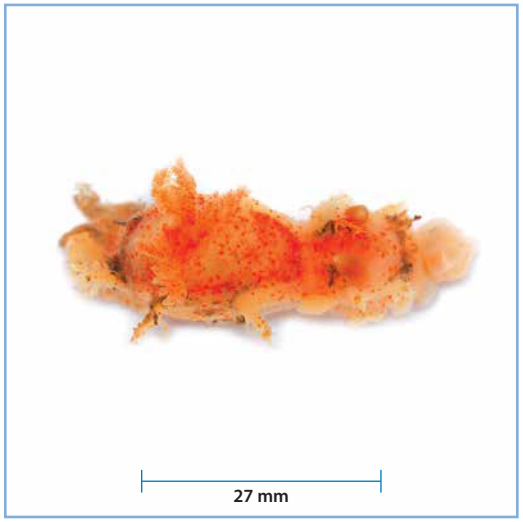
Jones G. 2008. *A Field Guide to the Marine Animals of the Cape Peninsula.* Southern Underwater Research Group Press. p. 135 (271 pp.)

Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay.* Southern Underwater Research Group Press. p. 27 (104 pp.)

Kaloplocamus ramosus (NudFla)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Nudibranchia
Family:	Polyceridae
Genus:	*Kaloplocamus*
Species:	*ramosus*
Common name:	Tassled/Orange flame nudibranch





Distinguishing features
Distinct orange colour with brighter orange speckles. May have scattered, raised white spots. Soft textured body with numerous branched lateral projections, more visible when viewed in water.

Colour
Pale orange with brighter orange speckles and raised white spots.

Size
Up to 100 mm.

Distribution
West coast to the Transkei, 25-400 m, also the Mediterranean, Australia and Japan.

Similar species
None.

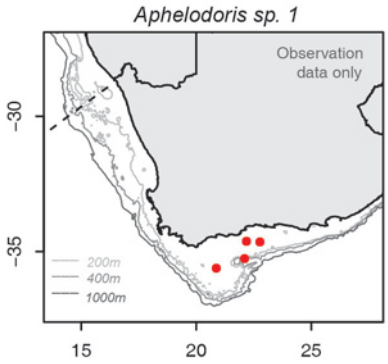
References
Identified from photograph by Georgina Jones and Terry Gosliner.

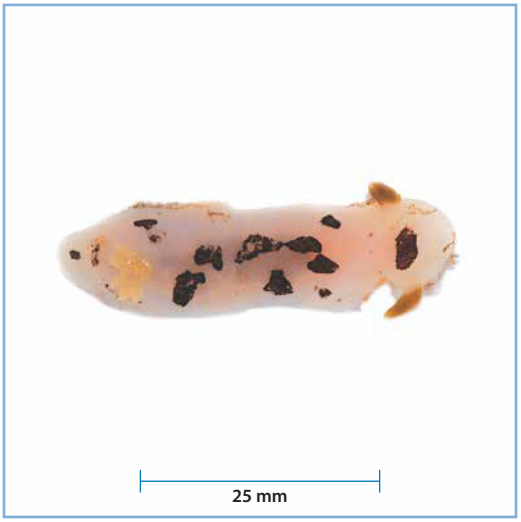
Jones G. 2008. *A Field Guide to the Marine Animals of the Cape Peninsula.* Southern Underwater Research Group Press. p. 143 (271 pp.)

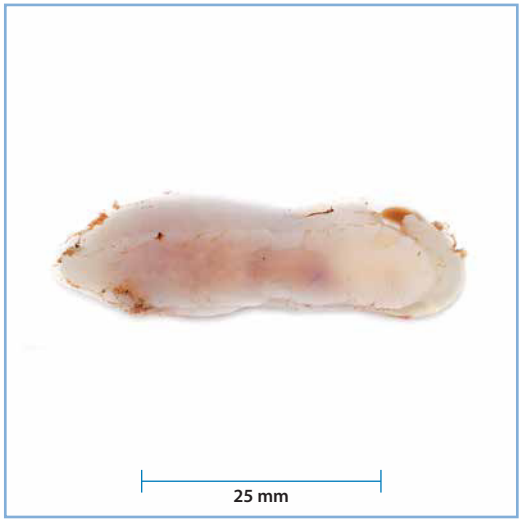
Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay.* Southern Underwater Research Group Press. p. 61 (104 pp.)

Aphelodoris sp. 1 (AphDot)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Nudibranchia
Family:	Dorididae
Genus:	*Aphelodoris*
Species:	sp. 1
Common name:	Chocolate-chip nudibranch







Distinguishing features
White-bodied dorid with a smooth dorsal surface and large, irregular brown/black spots. Rhinophores (chemosensory tentacles) elongated and cream to light brown in colour. Spots may be blotchy.

Colour
White-bodied with variably blotchy dark brown/black patches.

Size
At least 50 mm.

Distribution
West coast, both sides of the Cape Peninsula and South coast, Algoa Bay.

Similar species
Small-spot dorid (*Paradoris* sp.), which has smaller spots; Mandela's nudibranch (*Mandelia mirocornata*) has a rough dorsal surface and darker patches between spots.

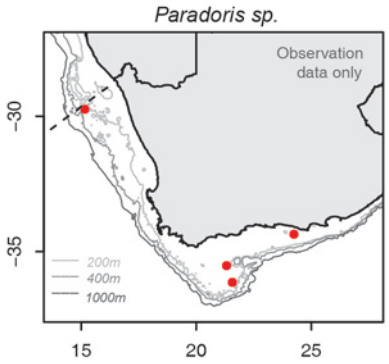
References
Identified from photograph by Georgina Jones.

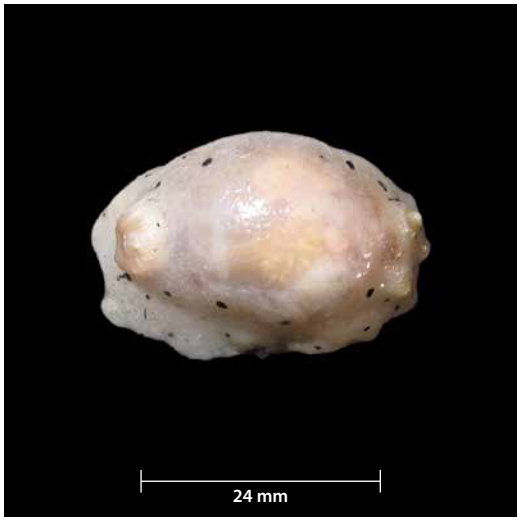
Jones G. 2008. *A Field Guide to the Marine Animals of the Cape Peninsula.* Southern Underwater Research Group Press. p. 135 (271 pp.)

Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay.* Southern Underwater Research Group Press. p. 35 (104 pp.)

Paradoris sp. 1 (Parador)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Nudibranchia
Family:	Discodorididae
Genus:	*Paradoris*
Species:	sp.
Common name:	Small-spot nudibranch





Distinguishing features
White-bodied dorid with a slightly rough surface and small irregular brown or black spots. Rhinophores (chemosensory tentacles) small and white.

Colour
White-bodied with small black or brown spots.

Size
At least 30 mm.

Distribution
West coast and South coast, South Africa.

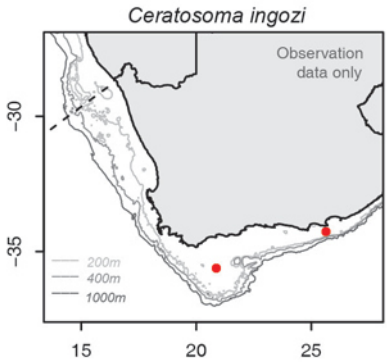
Similar species
Chocolate chip nudibranch (*Aphelodoris* sp. 1) has large blotchy dark patches; Mandela's nudibranch (*Mandelia mirocornata*) has a warty body, darker patches between spots and oblong rhinophores (chemosensory tentacles).

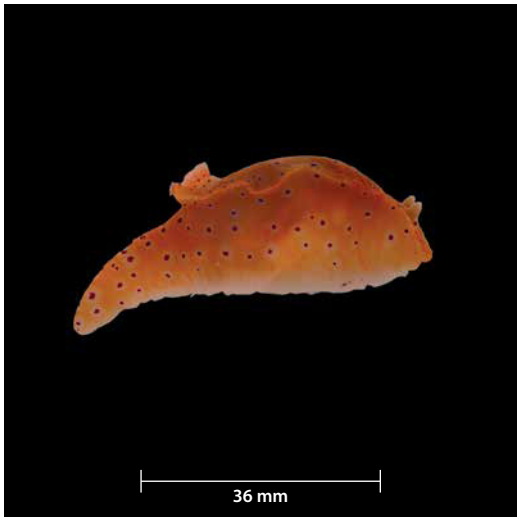
References
Identified from photograph by Georgina Jones.

Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay.* Southern Underwater Research Group Press. p. 32 (104 pp.)

Ceratosoma ingozi (CerIng)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Nudibranchia
Family:	Chromodorididae
Genus:	*Ceratosoma*
Species:	*ingozi*
Common name:	Inkspot nudibranch





Distinguishing features
Bright orange in colour with distinct bluish edged darker spots ranging in colour from dark red to black or brown. Club-shaped body with dorsal frill. In water, creamy Rhinophores (chemosensory tentacles) and dorsal gill rosette.

Colour
Bright orange in colour with distinct bluish edged darker spots ranging in colour from dark red to black or brown.

Size
Up to 80 mm.

Distribution
West and South coasts: False Bay to Port Elizabeth, recorded up to 108 m depth.

Similar species
None.

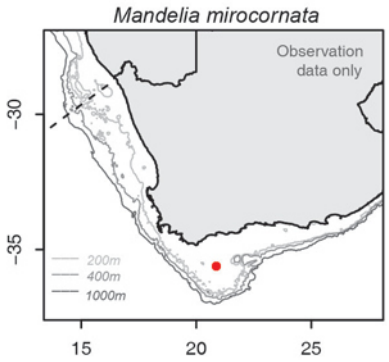
References
Identified from photograph by Georgina Jones and Terry Gosliner.

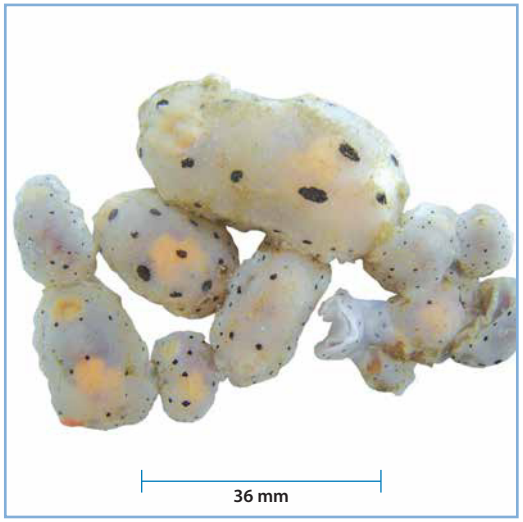
Jones G. 2008. *A Field Guide to the Marine Animals of the Cape Peninsula.* Southern Underwater Research Group Press. p. 137 (271 pp.)

Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay.* Southern Underwater Research Group Press. p. 45 (104 pp.)

Mandelia mirocornata (ManMir)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Nudibranchia
Family:	Mandeliidae
Genus:	*Mandelia*
Species:	*mirocornata*
Common name:	Mandela's nudibranch





Distinguishing features
Irregular solid black spots on dirty white or pale brown body, body surface bumpy. In water, rhinophores (chemosensory tentacles) oblong and creamy. Dorsal surface often translucent, with internal organs partially visible.

Colour
White to cream body with brown/black blotches, creamy rhinophores and gills.

Size
Up to 70 mm.

Distribution
West coast of Cape Peninsula to Algoa Bay South coast, in 10–400 m depth.

Similar species
Aphelodoris sp.1 but dark blotches are patchy, rhinophores oval and skin smooth, *Paradoris* sp. but spots are smaller.

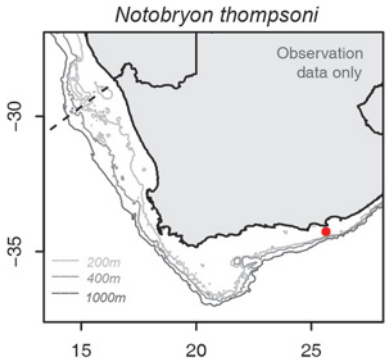
References
Identified from photograph by Georgina Jones.

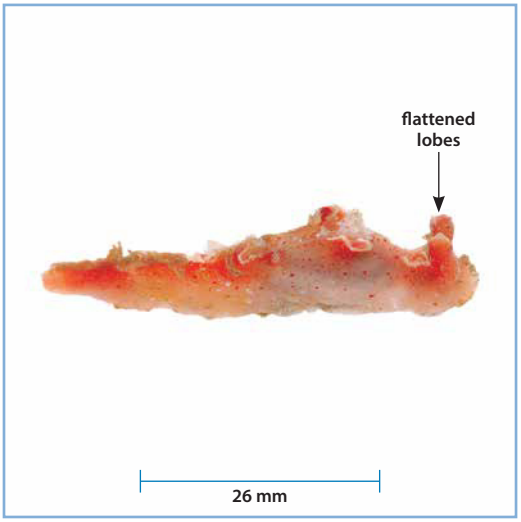
Jones G. 2008. *A Field Guide to the Marine Animals of the Cape Peninsula.* Southern Underwater Research Group Press. p. 139 (271 pp.)

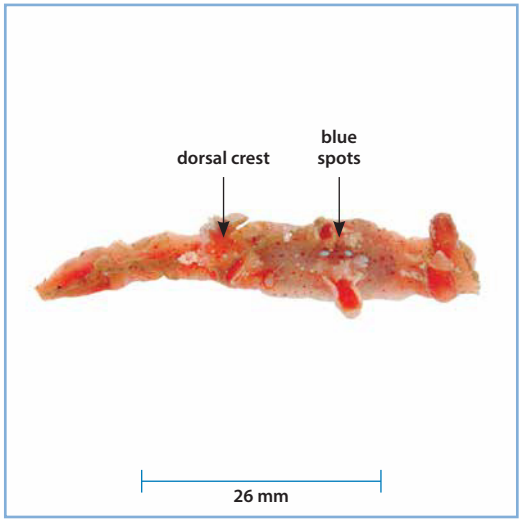
Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay.* Southern Underwater Research Group Press. p. 51 (104 pp.)

Notobryon thompsoni (NotTho)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Nudibranchia
Family:	Scyllaeidae
Genus:	*Notobryon*
Species:	*thompsoni*
Common name:	Iridescent bluespot nudibranch







Distinguishing features
Three distinct blue spots on the dorsal side of body. Body slender and elongated with two pairs of flattened lobes on either side of the dorsal gills. Translucent gills visible in water. Posterior dorsal crest. Front of head has two rhinophores (chemosensory tentacles), each surrounded by a sheath.

Colour
Pale orange with darker orange spots and extremities. Three distinct blue spots on dorsal surface.

Size
Up to 50 mm.

Distribution
West coast (Elands Bay) to South coast (Port Elizabeth).

Similar species
N. wardi, N. clavigerum, N. bijerecum, not locally known.

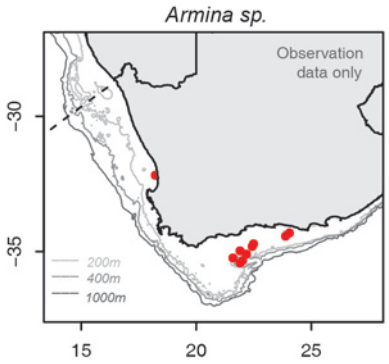
References
Identified from photograph by Georgina Jones and Terry Gosliner.

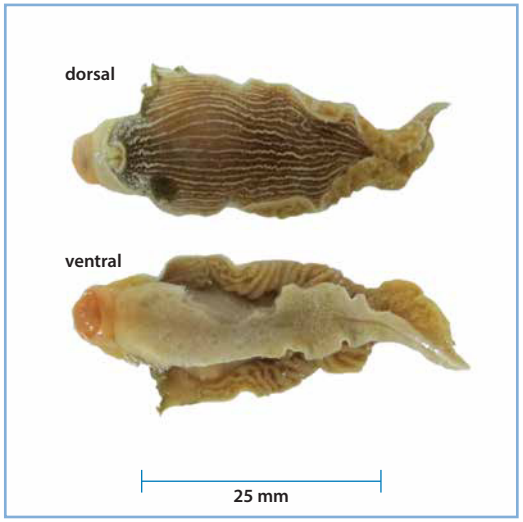
Jones G. 2008. *A Field Guide to the Marine Animals of the Cape Peninsula.* Southern Underwater Research Group Press. p. 145 (271 pp.)

Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay.* Southern Underwater Research Group Press. p. 67 (104 pp.)

Armina sp. (ArmSpp)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Nudibranchia
Family:	Arminidae
Genus:	*Armina*
Species:	sp.
Common name:	Striped sand slug/Pierre's Armina





Distinguishing features
Black with white (sometimes yellow or cream) ridges/stripes along body. Club-shaped body with frill-like edges. Anterior, small, ridged rhinophores (chemosensory tentacles), close together at their base. Known to predate on sea pens.

Colour
Black-bodied nudibranch with raised white longitudinal ridges. Edge of mantle yellow and foot pinkish with yellow margin.

Size
Up to 70 mm.

Distribution
On soft sediment substrates, West and South coast, South Africa.

Similar species
Armina gilchristi is smaller with broken longitudinal ridges. Several other *Armina* sp. are known to occur in the region, however the group is poorly studied and in need of taxonomic revision.

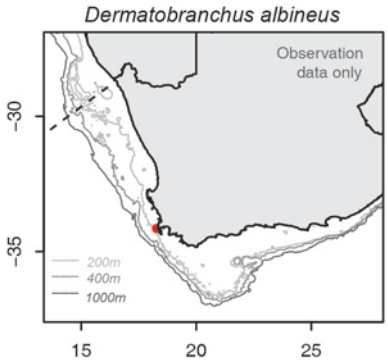
References
Identified from photograph by Georgina Jones.

Jones G. 2008. *A Field Guide to the Marine Animals of the Cape Peninsula.* Southern Underwater Research Group Press. p. 147 (271 pp.)

Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay.* Southern Underwater Research Group Press. p. 76 (104 pp.)

Dermatobranchus albineus (DerAlb)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Nudibranchia
Family:	Arminidae
Genus:	*Dermatobranchus*
Species:	*albineus*
Common name:	White-ridged nudibranch



Distinguishing features
Small with opaque white ridges along body. Rhinophores (chemosensory tentacles) small and oval, with longitudinal ridges.

Colour
Pale-bodied nudibranch with raised opaque white longitudinal ridges.

Size
Up to 20 mm.

Distribution
Cape Peninsula to Port Elizabeth, shallow waters.

Similar species
Armina gilchristi is smaller with broken longitudinal ridges; Pierre's Armina is larger with a black body and yellow margin. Several other *Armina* sp. are known to occur in the region, however the group is poorly studied and in need of taxonomic revision.

References
Identified from photograph by Georgina Jones.

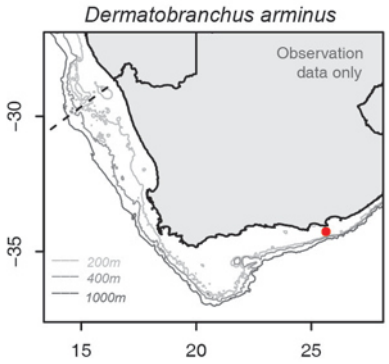
Gosliner TM and Fahey SJ. 2011. Previously undocumented diversity and abundance of cryptic species: a phylogenetic analysis of Indo-Pacific Arminidae Rafinesque, 1814 (Mollusca: Nudibranchia) with descriptions of 20 new species of Dermatobranchus. *Zool J Linn Soc*. 161(2):245-356.

Jones G. 2008. *A Field Guide to the Marine Animals of the Cape Peninsula*. Southern Underwater Research Group Press. p. 147 (271 pp.)

Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay*. Southern Underwater Research Group Press. p. 77 (104 pp.)

Dermatobranchus arminus (DerArm)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Nudibranchia
Family:	Arminidae
Genus:	*Dermatobranchus*
Species:	*arminus*
Common name:	Brown ridged nudibranch



Distinguishing features
Small with opaque white ridges along body. Ridges with dark brown blotches. Body pale with indistinct brown saddles. Rhinophores (chemosensory tentacles) small and oval with longitudinal ridges.

Colour
Pale-bodied, indistinctly brown saddled nudibranch with raised opaque white longitudinal ridges having dark blotches along them.

Size
Up to 20 mm.

Distribution
West and South coasts, usually deeper than 20 m.

Similar species
Dermatobranchus albinus has no dark blotches or saddles. *Armina gilchristi* is smaller with broken longitudinal ridges; Pierre's Armina is larger with a black body and yellow margin. Several other *Armina* sp. are known to occur in the region, however the group is poorly studied and in need of taxonomic revision.

References
Identified from photograph by Georgina Jones.

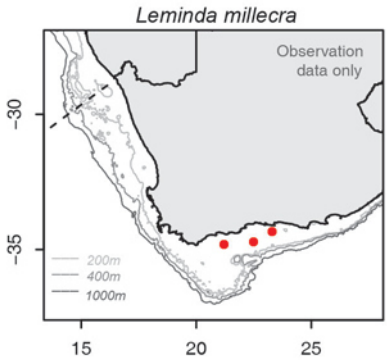
Gosliner TM and Fahey SJ. 2011. Previously undocumented diversity and abundance of cryptic species: a phylogenetic analysis of Indo-Pacific Arminidae Rafinesque, 1814 (Mollusca: Nudibranchia) with descriptions of 20 new species of Dermatobranchus. *Zool J Linn Soc.* 161(2):245-356.

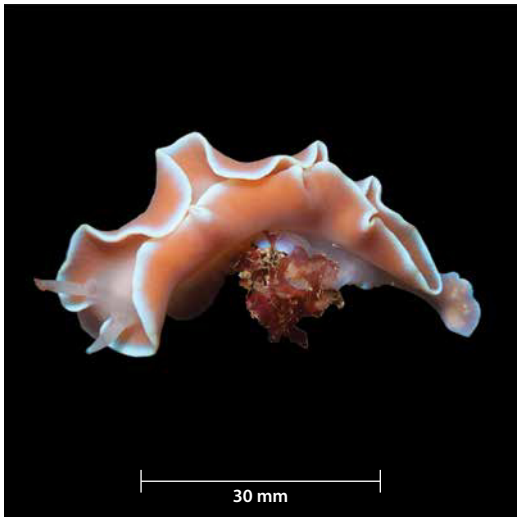
Jones G. 2008. *A Field Guide to the Marine Animals of the Cape Peninsula.* Southern Underwater Research Group Press. p. 147 (271 pp.)

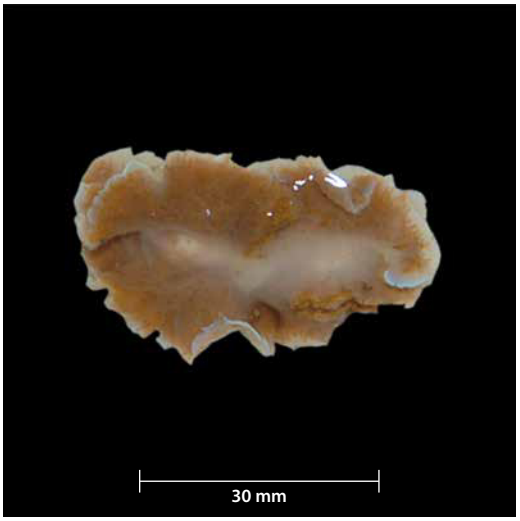
Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay.* Southern Underwater Research Group Press. p. 77 (104 pp.)

Leminda millecra (LemMil)

Phylum:	Mollusca
Class:	Gastropoda
Subclass:	Heterobranchia
Order:	Nudibranchia
Family:	Charcotiidae
Genus:	*Leminda*
Species:	*millecra*
Common name:	Frilled nudibranch







Distinguishing features
White-edged mantle relatively thin with large sinuous folds. Anterior break in mantle edge between the rhinophores (chemosensory tentacles). Large oral veil. Rhinophores pale, smooth and tapering, and do not retract into a pocket. Digestive gland divided into relatively fine ramifying ducts, which can be seen through the translucent body wall. Colour dependent on food colour in digestive gland ducts, but varies between pink and brown.

Colour
Pink to brown with an opaque white dorsal edge. Highly variable, depending on the food in the digestive ducts.

Size
Up to 90 mm.

Distribution
West coast of Cape Peninsula to Kwa-Zulu Natal, South coast, in 10–104 m.

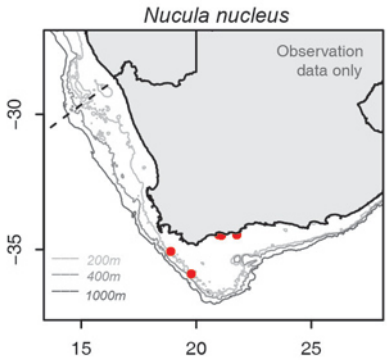
Similar species
None.

References
Jones G. 2008. *A Field Guide to the Marine Animals of the Cape Peninsula.* Southern Underwater Research Group Press. p. 147 (271 pp.)

Zsilavecz G. 2007. *Nudibranchs of the Cape Peninsula and False Bay.* Southern Underwater Research Group Press. p. 79 (104 pp.)

Nucula nucleus (Tellin)

Phylum:	Mollusca
Class:	Bivalvia
Subclass:	Protobranchia
Order:	Nuculida
Family:	Nuculidae
Genus:	*Nucula*
Species:	*nucleus*
Common name:	Common nut clam



Distinguishing features
Shell roundly triangular, but not equilateral (have unequal sides), posterior slope longer than anterior one; surface sculptured with somewhat irregular concentric growth lines (often scarcely evident) and microscopic radial lines; ventral margin finely denticulate; hinge with comb-like dentition (taxodont – with numerous fine interdigitating teeth).

Colour
Whitish with a dull olive-brown periostracum; often encrusted with pale orange or reddish deposits.

Size
Length up to 13.5 mm.

Distribution
South coast, Agulhas Bank (from False Bay to eastern Transkei), 40–350 m. Also in western Europe and Mediterranean.

Similar species
None; all other species of *Nucula* occurring on the Agulhas Bank are considerably smaller than *N. nucleus*.

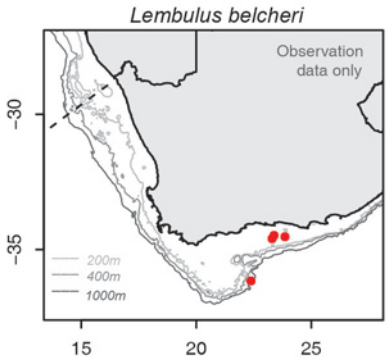
References
Barnard KH. 1964. Contributions to the knowledge of South African marine Mollusca. Part V. Lamellibranchiata. *Annals of the South African Museum* 47(3): 361–593. p. 361.

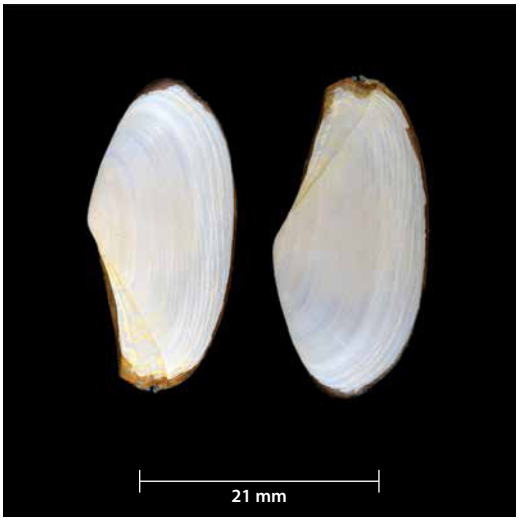
Kilburn RN. 1999. The family Nuculidae (Bivalvia: Protobranchia) in South Africa and Mozambique. *Annals of the Natal Museum* 40: 245–268. p. 249.

Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa*. Johannesburg. Macmillan. p. 153.

Lembulus belcheri (VenSpp)

Phylum:	Mollusca
Class:	Bivalvia
Subclass:	Protobranchia
Order:	Nuculanida
Family:	Nuculanidae
Genus:	*Lembulus*
Species:	*belcheri*
Common name:	Agulhas ridged nut clam





Distinguishing features
Shell elongate, anterior end rounded, posterior end somewhat drawn out and with three distinct ribs that notch the posterior margin; surface sculptured with evenly spaced, obliquely concentric ridges; hinge with comb-like dentition (taxodont – with numerous fine interdigitating teeth).

Colour
Milky-white to yellowish-white, somewhat glossy; dorsal and ventral edges usually with marginal band of khaki-brown periostracum.

Size
Length up to 40 mm.

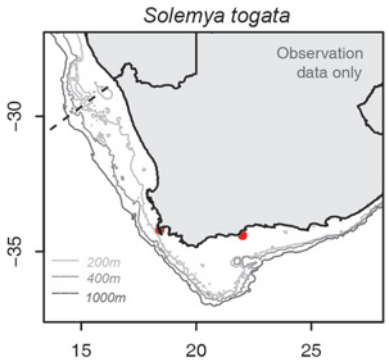
Distribution
South African endemic. South coast, Agulhas Bank (from False Bay to western Transkei), 30–500 m.

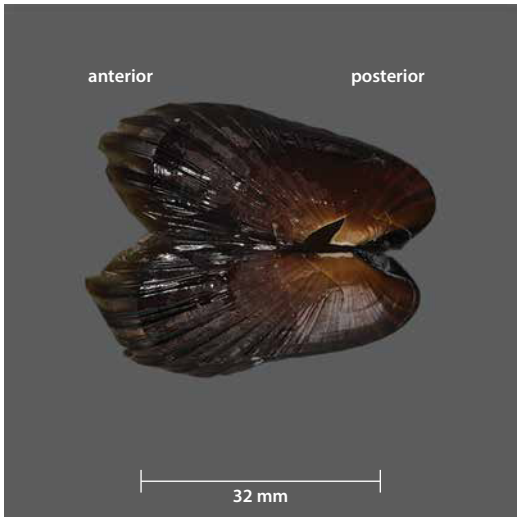
Similar species
Lembulus lamellatus and *L. gemmulatus* are similar species occurring off the East coast, but both are considerably smaller than *L. belcheri* (length up to 21 mm).

References
Barnard KH. 1964. Contributions to the knowledge of South African marine Mollusca. Part V. Lamellibranchiata. *Annals of the South African Museum* 47(3): 361–593. p. 365.

Solemya togata (SolTog)

Phylum:	Mollusca
Class:	Bivalvia
Subclass:	Protobranchia
Order:	Solemyida
Family:	Solemyidae
Genus:	*Solemya*
Species:	*togata*
Common name:	Mediterranean awning clam





Distinguishing features
Shell very fragile, gaping at each end, with a thick, horny periostracum that projects well beyond ventral and anterior margins like an awning; anterior region of shell with broad low ridges, evident also in periostracum; hinge essentially toothless. Foot of living animal long, visible at anterior end, the tip truncated, ending in a disc with a fringed margin.

Colour
Shell translucent white to buff, periostracum glossy, initially honey-brown, becoming dark brown with growth.

Size
Shell length up to 40 mm.

Distribution
West Coast, Saldanha Bay to Mossel Bay, 30–250 m.

Similar species
Solemya africana from the East coast (south to East London) attains a considerably larger size (length up to 100 mm).

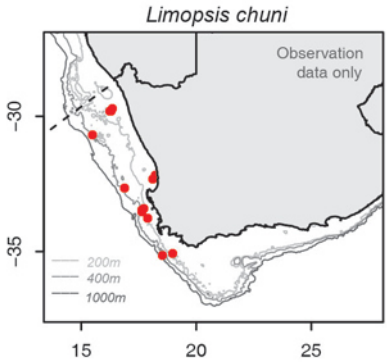
Notes
Solemya togata is a Mediterranean species and whether the South African material is genuinely the same requires further study.

References
Kilburn RN. 1974. Taxonomic notes on South African marine Mollusca (4): Bivalvia, with descriptions of new species of Lucinidae. *Annals of the Natal Museum* 22(1): 335–348.

Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa*. Johannesburg. Macmillan. p. 153.

Limopsis chuni (Dosini)

Phylum:	Mollusca
Class:	Bivalvia
Subclass:	Pteriomorphia
Order:	Arcida
Family:	Limopsidae
Genus:	*Limopsis*
Species:	*chuni*
Common name:	Cape limopsis



Distinguishing features
Shell almost circular in outline, usually covered throughout with dense, fine periostracal hairs, but these sometimes partially or entirely worn off; underlying shell sculptured with fine concentric ridges and indistinct radial lines; hinge with comb-like dentition (taxodont – with numerous fine interdigitating teeth).

Colour
Shell whitish, periostracal hairs light brown; often coated in mud.

Size
Length up to 40 mm.

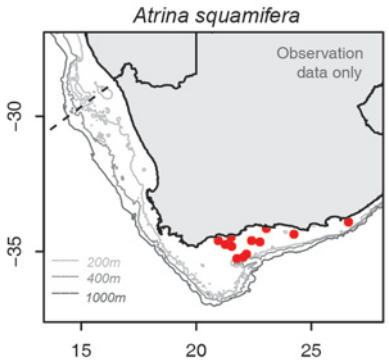
Distribution
South African endemic. West coast and Agulhas Bank, 50–430 m.

Similar species
Oblimopa multistriata is another relatively large limopsid species, but it has much stronger radial sculpture. It is an Indian Ocean species ranging south to the Durban area.

References
Barnard KH. 1964. Contributions to the knowledge of South African marine Mollusca. Part V. Lamellibranchiata. *Annals of the South African Museum* 47(3): 361–593. p. 383.

Atrina squamifera (AtrSqu)

Phylum:	Mollusca
Class:	Bivalvia
Subclass:	Pteriomorphia
Order:	Ostreida
Family:	Pinnidae
Genus:	*Atrina*
Species:	*squamifera*
Common name:	Scaly horse-mussel



Distinguishing features
Shell triangular in shape, large and fragile; hinge line straight, broad (posterior) end rounded and gaping; surface sculptured by six to twelve rounded ribs radiating from pointed anterior end; ribs bearing well-developed, curved (vaulted) scales, particularly in posterior half; strength of sculpture variable; living specimens with a 'beard' of long byssal threads projecting from antero-ventral region.

Colour
Light greyish-brown to horn-brown, semi-translucent, darkening with age.

Size
Length reportedly up to 390 mm, but rarely more than 250 mm.

Distribution
South African endemic. Saldanha Bay to East London; commonly found in lagoons and estuaries, but also occurs on the Agulhas Bank at depths of 30–120 m.

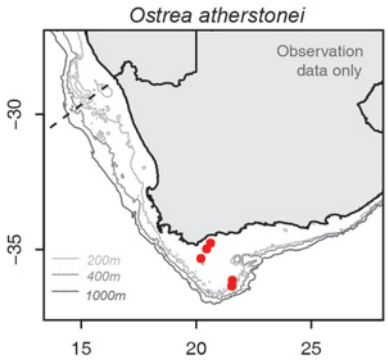
Similar species
The shell of *Pinna muricata* (East coast, south to Algoa Bay) is similar, but has a more square-cut posterior profile and internally there is a longitudinal furrow that divides the inner nacreous layer into two lobes.

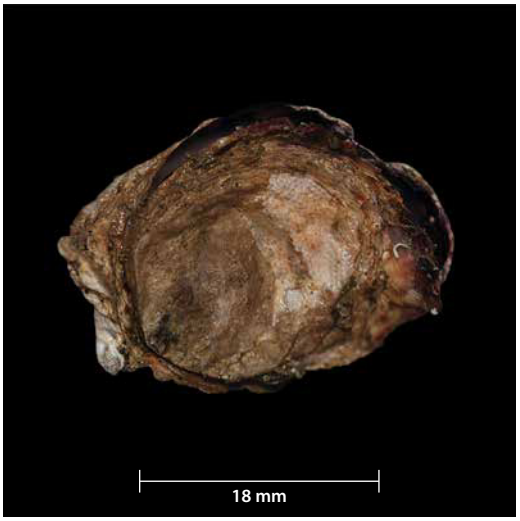
References
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2016. *Two Oceans. A guide to the marine life of southern Africa.* Fourth edition. Struik Nature. Cape Town. p. 148.

Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg. Macmillan. p. 167.

Ostrea atherstonei (OstAth)

Phylum:	Mollusca
Class:	Bivalvia
Subclass:	Pteriomorphia
Order:	Ostreida
Family:	Ostreidae
Genus:	*Ostrea*
Species:	*atherstonei*
Common name:	Cape brooding oyster





Distinguishing features
A typical oyster with a large, flat shell; somewhat rounded in outline; lower valve shallow, without a recess below hinge; externally with coarse overlapping growth lamellae.

Colour
Purplish brown to wine red occasionally with dark rays; interior whitish, often pink edged.

Size
Maximum diameter 105 mm.

Distribution
South African endemic. West coast Saldanha Bay to KwaZulu-Natal, South coast, shallow subtidal reefs.

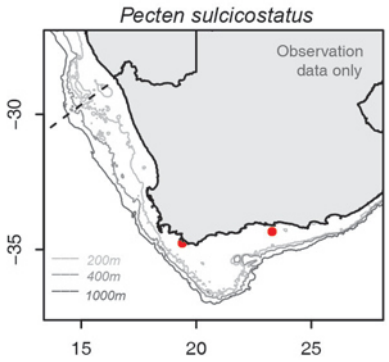
Similar species
The Pacific oyster, *Crassostrea gigas*, introduced to the Cape for aquaculture purposes, is more elongate in shape and has strong, wavy concentric sculpture.

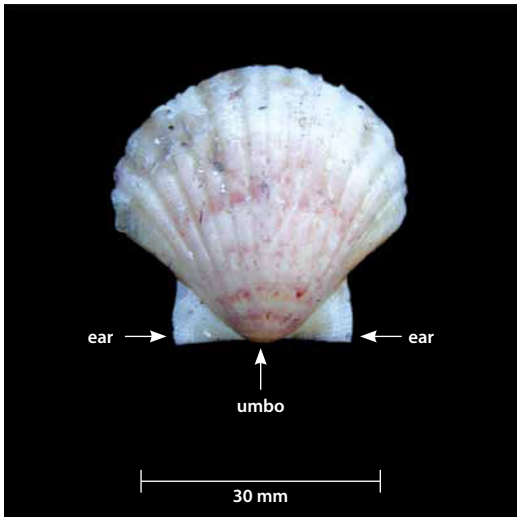
References
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2016. *Two Oceans. A guide to the marine life of southern Africa.* Fourth edition. Struik Nature. Cape Town. p. 150.

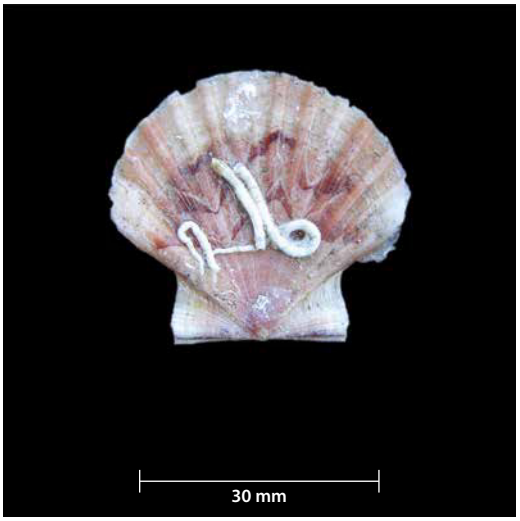
Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg. Macmillan. p. 170, pl. 38.

Pecten sulcicostatus (PecMax)

Phylum:	Mollusca
Class:	Bivalvia
Subclass:	Pteriomorphia
Order:	Pectinida
Family:	Pectinidae
Genus:	*Pecten*
Species:	*sulcicostatus*
Common name:	Agulhas ridged scallop







Distinguishing features

Shell large, right valve convex, left valve flat and slightly smaller than the right one; ears of equal size; sculptured by 12-15 radial ribs. On the right valve the ribs have sloping sides and are wider than their intervals, while the whole surface bears fine secondary radial threads; left valve with higher, more flat-topped ribs, no wider than their intervals, which lack secondary radial threads.

Colour

Cream to buff, left valve usually mottled with pink, salmon, or pinkish-brown, right valve paler, although often tinged with pink or salmon towards umbo (adults generally very pale); interior white.

Size

Maximum diameter 106 mm, usually 60–80 mm.

Distribution

South African endemic. Agulhas Bank (from False Bay to East London), 30–70 m.

Similar species

Pecten afribenedictus from the East Coast (south to East London) has a concave left valve and a more convex right valve in which the radial ribs lack fine radial threads. In addition, it has a wide purple-brown band around the ventral margin of the interior and it does not reach such a large size (maximum diameter 76 mm).

References

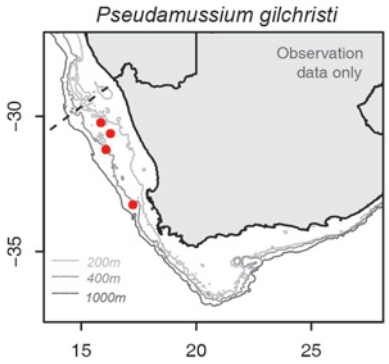
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2016. *Two Oceans. A guide to the marine life of southern Africa.* Fourth edition. Struik Nature. Cape Town. p. 150.

Dijkstra HH and Kilburn RN. 2001. The family Pectinidae in South Africa and Mozambique (Mollusca: Bivalvia: Pectinoidea). *African Invertebrates* 42: 263–321. p. 286.

Kilburn RN and Rippey E. 1982. *Sea shells of southern Africa.* Johannesburg. Macmillan. p. 171, pl. 38.

Pseudamussium gilchristi (Pecten)

Phylum:	Mollusca
Class:	Bivalvia
Subclass:	Pteriomorphia
Order:	Pectinida
Family:	Pectinidae
Genus:	*Pseudamussium*
Species:	*gilchristi*
Common name:	Gilchrist's scallop



Distinguishing features
Shell typically scallop-shaped, but with ± 8 low, broad, rounded radial ribs and sculptured all over with fine, granulose radial riblets; ears of unequal size.

Colour
Orange or pinkish; interior glossy.

Size
Greatest dimension up to 35 mm.

Distribution
West coast; Namibia to Cape Point, 130–420 m.

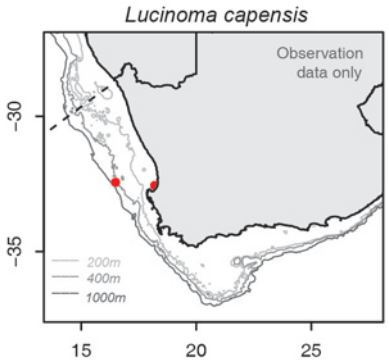
Similar species
Several other species of scallop occur off South Africa, but the sculptural features of *P. gilchristi* render it distinctive.

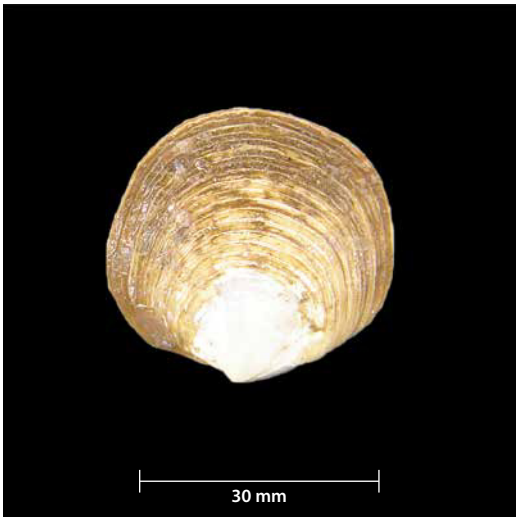
Notes
More specimens with accurate locality data are needed.

References
Dijkstra HH and Kilburn RN. 2001. The family Pectinidae in South Africa and Mozambique (Mollusca: Bivalvia: Pectinoidea). *African Invertebrates* 42: 263–321.

Lucinoma capensis (LucCap)

Phylum:	Mollusca
Class:	Bivalvia
Subclass:	Heterodonta
Order:	Lucinida
Family:	Lucinidae
Genus:	*Lucinoma*
Species:	*capensis*
Common name:	Cape lucina





Distinguishing features
Small to medium-sized; shell outline almost circular; umbones more or less central and curved slightly forward; valves of equal size; sculptured by thin, raised, concentric ridges, often eroded at umbones; hinge with two cardinal teeth per valve; interior pallial line without sinus; ventral margin smooth.

Colour
Shell white, with thin horn-brown periostracum when fresh; usually coated in mud.

Size
Diameter up to 40 mm.

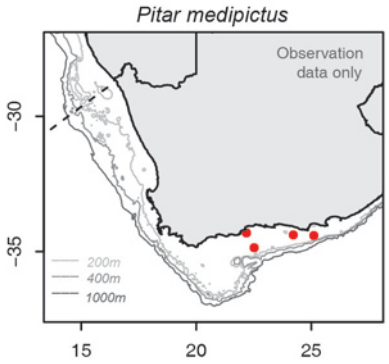
Distribution
West coast to South coast; Namibia to Transkei shelf, 30–450 m.

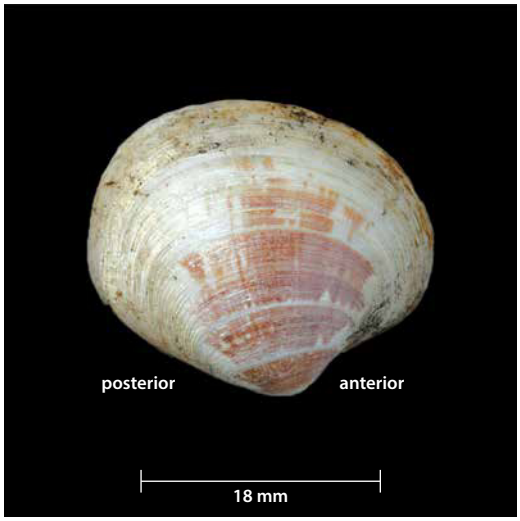
Similar species
Limopsis chuni is somewhat similar, but it has a taxodont hinge and a hairy periostracum. *Dosinia lupinus orbignyi*, a common venerid bivalve on the South and West coasts, has a similar shape, but has a thicker shell with more prominent umbones, finer concentric sculpture and a well-developed pallial sinus internally.

References
Barnard KH. 1964. Contributions to the knowledge of South African marine Mollusca. Part V. Lamellibranchiata. *Annals of the South African Museum* 47(3): 361–593. p. 473 (as *Phacoides*).

Pitar medipictus (PitAbb)

Phylum:	Mollusca
Class:	Bivalvia
Subclass:	Heterodonta
Order:	Venerida
Family:	Veneridae
Genus:	*Pitar*
Species:	*medipictus*
Common name:	Agulhas pitar venus





Distinguishing features
Shell broadly ovate, valves inflated; anterior evenly rounded, posterior more bluntly so; anterior and posterior ends with distinct concentric threads, but mid-region largely smooth; pallial sinus blunt, not reaching mid-line; inner ventral margin smooth.

Colour
Off-white, mid-region with broad, broken rays or concentric bands of medium or reddish-brown; lunule without brown lines; interior white, central region usually suffused with pale mauve.

Size
Length up to 27 mm.

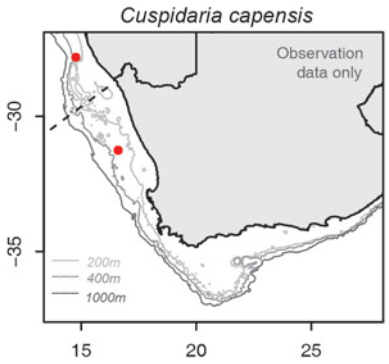
Distribution
South African endemic. South coast; Agulhas Bank and Transkei shelf (from False Bay to Port St Johns), 50–220 m.

Similar species
Pitar medipictus was previously confused with *P. hebraeus* and *P. abbreviatus* and was only recognised as a distinct species in 1999. It is endemic to South Africa and is the only temperate water species of *Pitar* occurring in the region. The remaining species are all warm-water forms occurring off the eastern seaboard.

References
Lamprell, KL & Kilburn, RN. 1999. The genera *Lioconcha* and *Pitar* in South Africa and Mozambique, with descriptions of three new species (Mollusca: Bivalvia: Veneridae). *Vita Marina* 46 (1–2): 19–41.

Cuspidaria capensis (CusSpp)

Phylum:	Mollusca
Class:	Bivalvia
Subclass:	Heterodonta
Order:	Anomalodesmata
Family:	Cuspidariidae
Genus:	*Cuspidaria*
Species:	*capensis*
Common name:	Cape cuspidaria



Distinguishing features
Shell small, thin and fragile; smooth; posterior region is drawn out into a spout-like rostrum.

Colour
White; often with dirty superficial deposit.

Size
Length up to 32 mm.

Distribution
South African endemic. West and South coast; Atlantic Cape coast to Transkei shelf, 70–550 m or more.

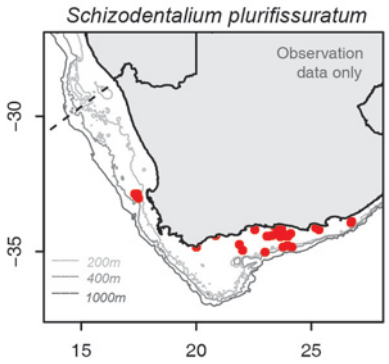
Similar species
Several species of *Cuspidaria* have been recorded off the South African coast. They are poorly documented and difficult to identify, but the rostrate shell shape is characteristic of the genus. The species differ in the length of the rostrum and the strength of sculpture.

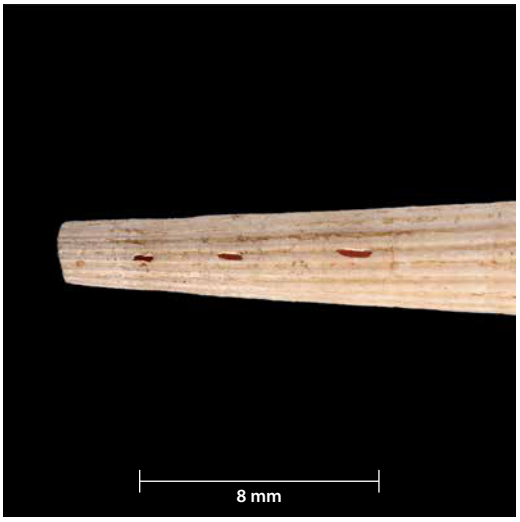
Notes
Cuspidaria species are predatory. The siphon is shot out of the rostrum and expands rapidly, sucking in small prey items such as copepods.

References
Barnard KH. 1964. Contributions to the knowledge of South African marine Mollusca. Part V. Lamellibranchiata. *Annals of the South African Museum* 47(3): 361–593. p. 579–582.

Schizodentalium plurifissuratum (SchPlu)

Phylum:	Mollusca
Class:	Scaphopoda
Subclass:	-
Order:	Dentalida
Family:	Dentaliidae
Genus:	*Schizodentalium*
Species:	*plurifissuratum*
Common name:	Multi-fissured tusk shell





Distinguishing features
Shell resembles a miniature elephant's tusk; no evidence of coiling; shell hollow, tapering from one end to the other, slightly curved; sculptured with fine, close-set, longitudinal ridges; narrow end (posterior) with a row of one to five longitudinal, slit-like perforations on convex surface (occasionally none).

Colour
Shell dirty white to yellowish-cream; frequently stained with blackish marks.

Size
Length up to 70 mm.

Distribution
South African endemic. Agulhas Bank (from False Bay to western Transkei), 70–300 m.

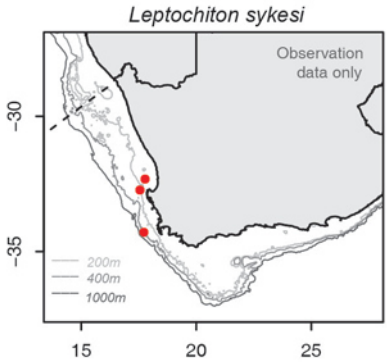
Similar species
None; the slits at the posterior end are distinctive.

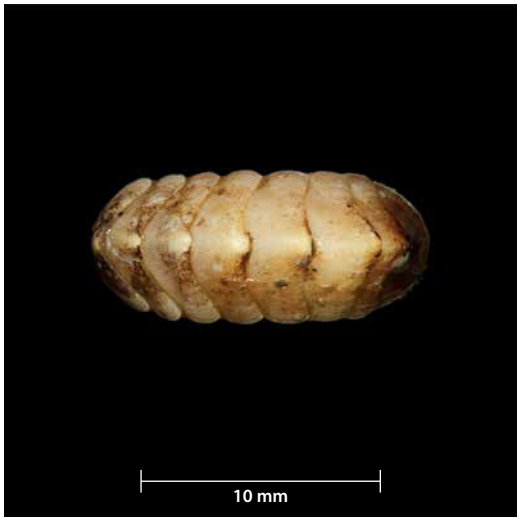
References
Barnard KH. 1963. Contributions to the knowledge of South African marine Mollusca. Part IV. Gastropoda: Prosobranchiata: Rhipidoglossa, Docoglossa. Tectibranchiata. Polyplacophora. Solenogastres. Scaphopoda. *Annals of the South African Museum* 47(2): 201–360. p. 346.

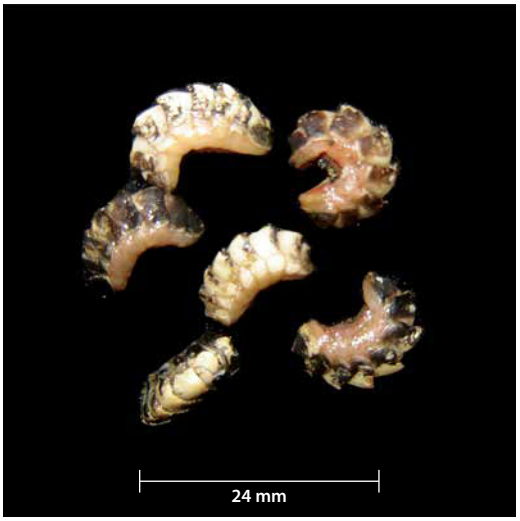
Branch GM, Griffiths CL, Branch ML and Beckley LE. 2016. *Two Oceans. A guide to the marine life of southern Africa.* Fourth edition. Struik Nature. Cape Town. p. 144.

Leptochiton sykesi (LepSyk)

Phylum:	Mollusca
Class:	Polyplacophora
Subclass:	-
Order:	Lepidopleurida
Family:	Leptochitonidae
Genus:	*Leptochiton*
Species:	*sykesi*
Common name:	Sykes's chiton







Distinguishing features
Animal with eight valves (plates) covering dorsal surface, surrounded by a thin girdle with fine velvety spicules; valves strongly arched and mid-line of animal angular; valve surface with numerous extremely fine longitudinal beaded threads (only visible under a microscope), lateral areas of valves two to seven weakly raised and with concentric growth lines.

Colour
Valves whitish, usually stained to varying degrees with black (sometimes heavily so); girdle yellowish-white to pale apricot.

Size
Length up to 23 mm.

Distribution
South African endemic. Known only from off the south-western Cape (from Saldanha Bay to Cape Point), 70–433 m, but mostly deeper than 250 m.

Similar species
Several deep-water species of *Leptochiton* have been described from off South Africa and their identification requires close scrutiny. *L. sykesi* is characterised by the very fine sculpture on the valves.

References
Barnard KH. 1963. Contributions to the knowledge of South African marine Mollusca. Part IV. Gastropoda: Prosobranchiata: Rhipidoglossa, Docoglossa. Tectibranchiata. Polyplacophora. Solenogastres. Scaphopoda. *Annals of the South African Museum* 47(2): 201–360. p. 331.

Kaas, P & van Belle, RA. 1985. *Monograph of living chitons*. Vol. 1. Backhuys. Leiden. p. 75.