

SMALL FAMILIES

Button snails, Clusterwinks, Screw shells, Wentletraps, Violet snails, Parasitic snails

List of species

Family: Modulidae P. Fisher, 1884 **Button snails**

1. *Indomodulus tectum* (Gmelin, 1791)

Family: Planaxidae J. E. Gray, 1850 **Clusterwinks**

1. *Planaxis sulcatus* (Born, 1778)
2. *Supplanaxis niger* (Quoy & Gaimard, 1833)

Family: Turritellidae Lovén, 1847 **Screw shells**

1. *Turritella columnaris* Kiener, 1843
2. *Turritella duplicata* (Linnaeus, 1758)

Family: Epitoniidae Berry, 1910 (1812) **Wentletraps**

1. *Gyroscala commutata* (Monterosato, 1877)

(Previously Janthinidae Lamarck, 1822) **Violet snails**

2. *Janthina globosa* Swainson, 1822
3. *Janthina janthina* (Linnaeus, 1758)

Family: Eulimidae Philippi, 1853 **Parasitic snails**

1. '*Eulima*' sp. 1
2. *Thyca crystallina* (Gould, 1846)
3. *Thyca* cf. *lactea* (Kuroda, 1949)

Other species reported from Sri Lanka

Turritella terebra (Linnaeus, 1758)
- de Silva, 2006

MODULIDAE P. Fisher, 1884

Modulus snails, button snails

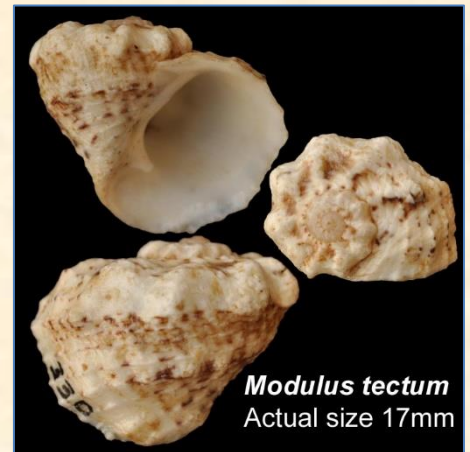
Shells small, thick, top-shaped with a flattened apex. Generally small with a few whorls, the last of which is large. Aperture large, circular, the outer lip lirate, the columella with a downward pointing tooth. Small, narrow umbilicus. Surface with nodulose spiral cords, some with axial ribs. Thin operculum. Found in shallow tropical seas amidst sea grass and seaweeds, on sand or rocks.

1. *Indomodulus tectum* (Gmelin, 1791) *Tectum modulus*, knobby snail
[*Trochus tectum* Gmelin, 1791; *Modulus tectum* (Gmelin, 1791)]

Shell solid, spire depressed, strong axial ribs that expand into blunt knobs at the angulate shoulder, continuing below as weak ribs, crossed by spiral cords with 3-4 spiral threads in between. Body whorl expands rapidly to a wide aperture. Interior lirate, columella smooth, a sharp tooth at anterior end. Dirty white, the spiral cords with interrupted patches of brown to black.
17 mm high.

Off Colombo, empty, by diving.

Subba Rao and Dey (2000) report *M. tectum* and *M. candidus* from the Andaman Islands. Said to grow to 20 – 30 mm. The shell illustrated is probably a juvenile, as it lacks the deep purple-brown colouring of the columella and tooth. Said to be common on sea grasses and sea weeds (Abbott, 1994).



Modulus tectum
Actual size 17mm

PLANAXIDAE J. E. Gray, 1850

Subfamily Planaxiinae

Clusterwinks, grooved snails

Solidly built shells, elongate-ovate in shape with pointed spires, thickened outer lips, lirate apertures and both anterior and posterior canals. Fibrous periostracum. Horny operculum. Surface smooth or with spiral cords or grooves but without varices. The subfamily Planaxiinae without umbilicus, Fossariinae with. Inhabitants of intertidal rocky shores and mangroves. They are herbivorous.

These snails resemble Littorinidae, and occur in similar habitats, but differ in possessing siphonal canals and being operculate.

1. *Planaxis sulcatus* (Born, 1778) Ribbed clusterwink, sulcate planaxis
[*Buccinum sulcatum* Born, 1778]

Shell solid, elongate-ovate. Large body whorl, tapering pointed spire. Aperture with both anterior and posterior siphonal canals, interior lirate, columella smooth, umbilicus absent. Exterior with strong spiral cords. Axial markings of black and white, columella white, margin of outer lip dark brown, interior greyish, the lirae white. Periostracum thin, brown. Operculum horny. Up to 21.0 x 14.4 mm (ht x w).

Jaffna, Delft, St. Anthony's Church beach, rocky shore with eroded coral and muddy tide pools; Jaffna, Mandaitivu, rocky shore, submerged 30 cm, under debris; Jaffna, Delft Island, intertidal rocky shore, rocks exposed at low tide; Trincomalee, Cod Bay, Mud Cove, intertidal on small stones, exposed at low tide; Trincomalee, Clappenberg Bay, intertidal on small stones, exposed at low tide; Trincomalee, Nilaveli, Big Pigeon Is, north cove, intertidal rocky shore, exposed.



2. *Supplanaxis niger* (Quoy & Gaimard, 1833) Black-brown planaxis
[*Planaxis niger* Quoy & Gaimard, 1833; *Supplanaxis abbreviatus* (Pease, 1865)]

Fusiform, solidly built shells with short pointed spires. Sides of whorls convex, body whorl inflated, suture impressed. Spiral grooves visible faintly under magnification, 5-6 seen with naked eye anteriorly. Outer lip thick, bevelled, 9-10 strong teeth; columella concave, smooth, a rounded tooth posteriorly bordering a short anal canal, umbilicus absent; anterior canal short. Reddish brown, interior white to brown. Operculum elliptical, nucleus eccentric. 10 to 12 mm.

Mount Lavinia, Hotel Bay, base of Ipomea cliff, on intertidal wet rocks, live shells having been washed ashore with vegetation.

Seen only once; a cluster of many individuals actively moving about over wet rock near the water level, in the vicinity of *Melampus*. Probably brought in on floating vegetation but did not colonise, unlike the *Melampus* that did form a stable colony.

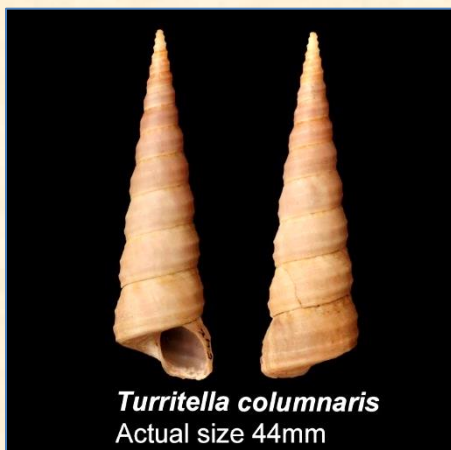


TURRITELLIDAE Lovén, 1847

Subfamily Turritellinae

Turret or Screw shells

Shells medium to large, thick, elongate, sharply conical with numerous whorls and proportionately small, rounded apertures. Anterior siphonal canal absent. The operculum rounded with a central nucleus. Dwellers of subtidal soft bottoms. Detritus or filter feeder.



1. *Turritella columnaris* Kiener, 1840 Columnar screw shell

Shell conical with tall pointed spire of numerous whorls (44 mm/13 whorls). Suture incised, constricted, whorls convex. Aperture square, outer lip thin. Ornament consists of fine incised lines that cover the whole surface, continuing over two low, rounded spiral ridges, at mid-whorl and below, the uppermost whorls having only the mid-whorl ridge. Over the most recent whorls a third ridge appears that forms the squared lower margin of the body whorl and is seen on the lower spire whorls just above the suture. The base contains in addition, 4 or 5 low ridges. Colour white with a row of tan subsutural spots. The upper whorls irregularly clouded with tan. 34 - 44 mm.

Specimens in the collection sand worn and faded.

Off Colombo: Mount Lavinia, Bellangala seaward, 10 m, empty; Palagala (reef), 14 m, empty; Degal Meda (reef), 26 m, empty. All by diving.

- Siddiqui et al, 2007 p. 99; Kirtisinghe, 1978 p. 54.



Turritella duplicata
Actual size 146mm

2. *Turritella duplicata* (Linnaeus, 1758) Duplicate screw shell

[*Turbo duplicatus* Linnaeus, 1758]

Shell conical, with very tall tapering spire of numerous whorls (146 mm/15 whorls). Suture incised, constricted, whorls convex. Aperture round, outer lip thin, columella curved, smooth. Ornamentation consists of strong spiral keeled ridges over the lower part of the whorls. Upper whorls have one keel, and lower have two. These gradually become weaker in the most recent whorls, the body whorl having three. In between are numerous cords and threads, strongest in the uppermost whorls, gradually thinning out so the body whorl is smooth apart from the spiral keels. Arcuate growth lines, quite prominent in the body whorl, cross the spiral ornament of the lower whorls. Colour light tan, the upper whorls sometimes darker above the keels. Operculum horny, circular, rather thick, dark brown in colour with a central nucleus and many whorls. 92 to 146 mm.

Very large ones found dead in large numbers in the shallows of the Galle Harbour e.g. near the "Pipe wreck" site. A 92 mm specimen collected burrowing into the sand at the strand line, Mount Lavinia; Kalpitiya, Anawasala, fishing trash; Maggona, Thudawa Bay, fishing trash; Vakarai, Sallitivu, beached, empty.

- Poutiers, 1989 p. 457; de Bruyne, 2003 p. 82 as Zaria...; Siddiqui et al, 2007 p. 99; Kirtisinghe, 1978 p. 54; Abbott, 1994 p. 26; Oliver, 1989 p. 46.

EPITONIIDAE Berry, 1910(1812)

Wentletraps and Purple snails

Wentletraps are small to medium-sized, thin shells. Conical, with many loosely coiled whorls that are rounded bearing axial varices. Mostly white. Thin, horny operculum. Usually among rocks and corals in shallow waters. They are carnivorous, feeding on corals, anemones and other coelenterates.

1. *Gyroscala commutata* (Monterosato, 1877) Wentletrap

[*Gyroscala lamellosa* (Lamarck, 1822), *Scalaria lamellosa* Lamarck, 1822; *Gyroscala perplexa* (Pease, 1868); *Epitonium perplexum* Pease, 1868 and numerous other synonyms]

An umbilicus is not present in this species. 13.4, 13, 12 mm high.
Find data not recorded, most likely from around the Mount Lavinia area.



Gyroscala lamellosa
Actual size 13.4mm

(Previously in family **Janthinidae**)

Violet snails

Shell thin, globose. The animals secrete a mucous bubble float that enable them to float at the water surface. They are planktonic, drifting under the influence of wind and ocean currents. They are carnivorous, feeding on floating siphonophores, such as *Physalia* spp. The empty shells usually wash up on beaches. One specimen complete with its bubble float has been found.

2. *Janthina globosa* Swainson, 1822



Janthina globosa
Actual size 5mm



Janthina janthina
Actual size 18mm

Shells small, with a well inflated body whorl, the columella long and straight, a notch at the centre of the outer lip. Body whorl 3-5 mm diameter.

Beruwela, beached, collected by Nileendra Senanayake.

3. *Janthina janthina* (Linnaeus, 1758)

[*Helix janthina* Linnaeus, 1758]

Common or large violet snail

Shells large, said to grow up to 40 mm. The whorls angled, with a slightly extended apex. The base is flatter and less rounded than in *J. globosa*. Violet in colour with pale upper parts. 7 - 18 mm diam.

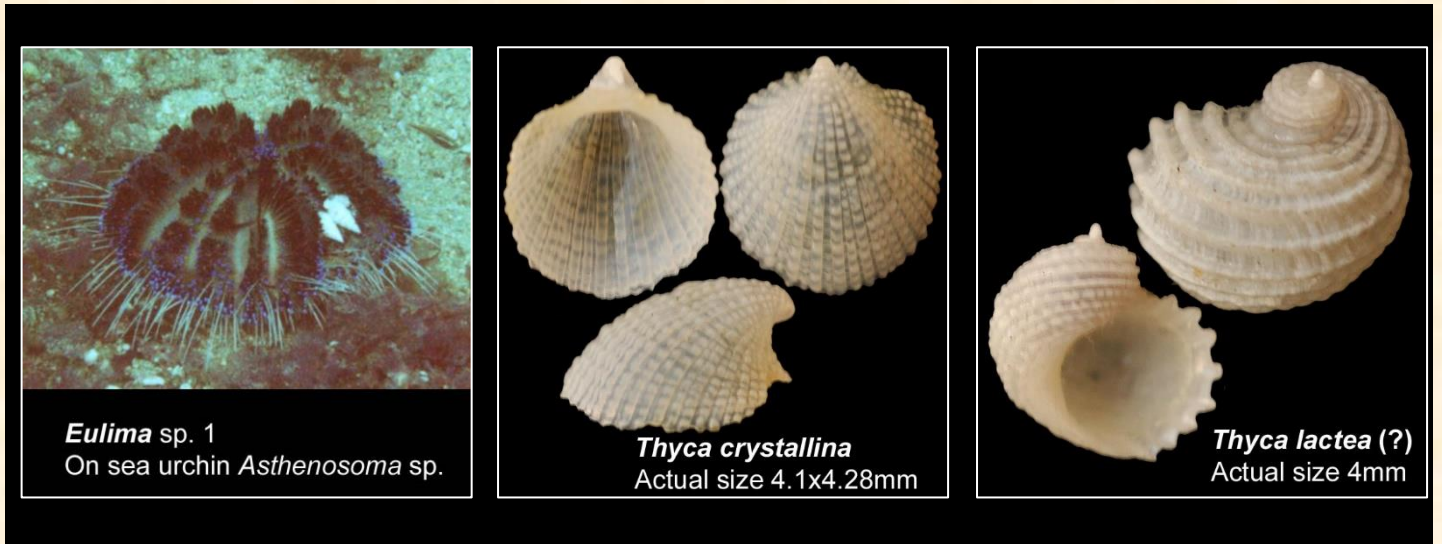
Mount Lavinia, beached, thirteen specimens collected.

- Eisenberg, 1989 p. 55; Oliver, 1989 p. 58; Abbott, 1994 p. 31; Kirtisinghe, 1978, p.91.

EULIMIDAE Philippi, 1853

Parasitic snails

This is a family of small parasitic snails found on other marine invertebrates.



Eulima sp. 1
On sea urchin *Asthenosoma* sp.

Thyca crystallina
Actual size 4.1x4.28mm

Thyca lactea (?)
Actual size 4mm

1. '*Eulima*' sp. 1

Parasitic sea urchin snail

No specimens collected, only an underwater photograph of these conical, white snails, on the sea urchin *Asthenosoma* sp. Kalpitiya, off Kandakuliya, 18 m deep, on the sand bottom with patches of rocks, corals and sea weeds. By diving.

2. *Thyca crystallina* (Gould, 1846)

Crystalline thyca

[*Pileopsis crystallina* Gould, 1846]

Shell small, not coiled, with overhanging apex and large nearly circular aperture. Radiating ribs fan out from the apex to the margin, crossed by wide grooves that impart a pattern of embossed rectangles. Translucent white. 4.1 x 4.28 mm (ht x w).

A serendipitous find on the underside of the starfish *Linckia laevigata* collected from the Pitagala shoal off Dehiwela, at a depth of 22 m. It is apparently an obligatory parasite on *L. laevigata*.

3. *Thyca* cf. *lactea* (Kuroda, 1949)

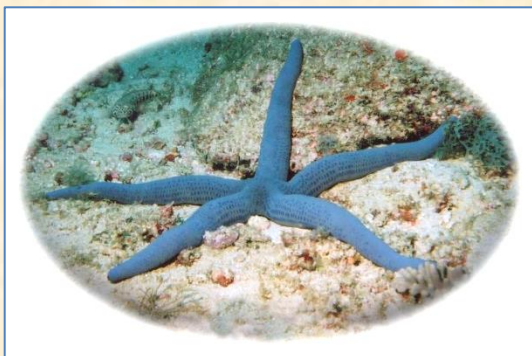
Milky thyca

[*Kiramodulus lacteus* Kuroda, 1949]

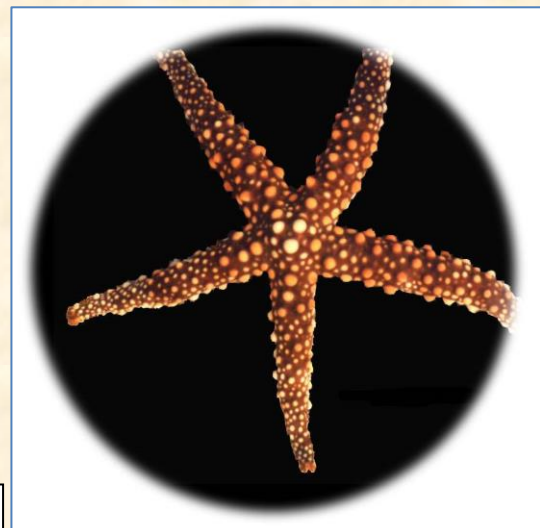
Shell globose, coiled, a small but distinct spire with apicular apex. Aperture large, a smooth, curved columella with a shallow groove. No umbilicus. Strong, rough spiral ridges with wider interspaces. White in colour. 4 mm high.

Serendipitous find burrowing into the ambulacrum of the starfish *Gomophia egyptiaca*. No data on find location.

The identification needs confirming. The index shell matches most closely images of *T. lactea* from north China Sea off Japan, on Internet trade catalogues. No images through WoRMS although listed. Said to reach 8 - 9 mm.



Linckia laevigata: underwater photo with strobe illumination by Saman Liyanage



Gomophia egyptiaca: ex situ photo MF

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