

AUGERS**List of species**

1. *Duplicaria duplicata* (Linnaeus, 1758)
2. *Hastula alboflava* Bratcher, 1988
3. *Hastula hectica* (Linnaeus, 1758)
4. *Hastula rufopunctata* (E. A. Smith, 1877)
5. *Impages anomala* (Gray, 1834)
6. *Oxymeris crenulata* (Linnaeus, 1758)
7. *Oxymeris dimidiata* (Linnaeus, 1758)
8. *Oxymeris maculata* (Linnaeus, 1758)
9. *Terebra guttata* (Röding, 1798)
10. *Terebra pertusa* (Born, 1778) = *Hastulopsis*
11. *Terebra subulata* (Linnaeus, 1767)

Other species reported from Sri Lanka

- Cinguloterebra anilis* (Röding, 1798)
Cinguloterebra commaculata (Gmelin, 1791)
Cinguloterebra lima (Deshayes, 1857)
Cinguloterebra pretiosa (Reeve, 1842)
Oxymeris cerithina (Lamarck, 1822)
 - Kirtisinghe, 1978

Name changes 2020*Impages* to *Hastula**Hastulopsis* to
*Myurella**Cinguloterebra* to
*Terebra***TEREBRIDAE Mörch, 1852****Augers**

Shells slender with a tall spire of many whorls. Small apertures – rectangular or triangular, outer lip thin, columella straight or curved, usually with a fold. Siphonal canal a short, wide notch. Horny operculum of various shapes, with terminal nucleus. Sculpture consists of axial ribs and spiral grooves and nodules, mostly near the suture. Augers are carnivorous animals living on shallow sandy bottoms of tropical and subtropical seas, hunting polychaete worms and enteropneusts that they locate by touch using the foot. Many species do not possess a radula (genus *Terebra*); some species (*Impages*) possess sharp, arrow-like radula teeth together with a poison apparatus with which they paralyse prey before swallowing. They usually burrow just below the surface, with only the apical tip of the shell and the siphon showing.

The augers are distributed among a few genera, or described under the single genus *Terebra*.
 (Dance, 1974; Poutiers, 1998; de Bruyne, 2003)



Terebridae



Duplicaria duplicata
Actual size 40mm



Hastula alboflava
Actual size 29mm



Hastula hectica
Actual sizes 58, 43, 40mm



Hastula rufopunctata
Actual size 29mm



Impages anomala
Actual size 28mm



Oxymeris crenulata
Actual size 65mm



Oxymeris dimidiata
Actual size 87mm



Oxymeris maculata
Actual size 140mm



Oxymeris maculata
Actual size 126.3mm



1. *Duplicaria duplicata* (Linnaeus, 1758)

Duplicate auger

[*Buccinum duplicatum* Linnaeus, 1758; *Terebra duplicata* Linnaeus, 1758]

Shell straight-sided. A spiral groove below the suture defines a narrow subsutural band. Strong non-aligned axial ribs present on both bands. On the body whorl the anterior portion is smooth, devoid of ribs, the junction marked by a white band with a red line below. The whorls are greyish, the subsutural band pinkish. 40 x 10mm (ht x w). Maximum reported is 90 mm.

Kirinda, damaged beached shell.

2. *Hastula alboflava* Bratcher, 1988

Scalloped auger

Shell slender, aperture rather elongate. Suture impressed, overlaid by the scalloped margin of the whorl below. Sculpture consists of a subsutural band of axial ribs, the upper margins being rounded and the lower fading away. In early whorls the ribs are prolonged downwards and show as faint ribs on the lower parts of the whorls, the later whorls being quite smooth below the subsutural band. Ground colour white, the whorls marked by clouded yellow-brown axial streaks below the subsutural band with a white spiral band on the anterior part of the body whorl; columella white. Internet images show a white upper band and a solid yellow lower band. 29 x 7 mm (ht x w) with slight damage to outer lip.

No find data.

3. *Hastula hectica* (Linnaeus, 1758)

Slender auger

[*Buccinum hecticum* Linnaeus, 1758; *Impages hectica* (Linnaeus, 1758)]

Shell slender and of a graceful shape with a triangular aperture. Sides straight, suture impressed. The whorls are marked by distant, wavy, weak axial ribs, most prominent below the suture, tending to fade away in the lower part of the whorl in some specimens, but persisting over the entire body whorl. Colour variable: in three specimens, one is a uniform light flesh colour, the aperture and columella similar; one is a darker colour with a purplish tinge, a lighter subsutural band and a similarly coloured band on the anterior of the body whorl, the interior and columella has the darker colour; the other is light flesh colour, a white subsutural band axially streaked with short purplish lines and a white band with a purplish flare on either side on the anterior of the body whorl. The upper purplish flare shows above the suture as a dark band on early whorls, interior and columella light. 40 to 58 x 10 mm (ht x w).

Mount Lavinia, Hotel Bay, 3 m.

Many synonyms and named varieties listed in MolluscaBase; colours and patterns appear to be variable, much brighter than the index shells. Kirtisinghe, 1978 lists *Impagus confusa* (sic); *Impages confusa* is distributed in the N-W Pacific, *I. hectica* in the Indo-Pac (Oliver, 1975).

4. *Hastula rufopunctata* (E. A. Smith, 1877)

Red-spotted auger

[*Terebra rufopunctata* E. A. Smith, 1877; *Terebra diversa*; *Hastula diversa* (E. A. Smith, 1901)]

Shell slender, more or less straight-sided, sutures barely constricted, pointed apex. Aperture damaged, 16 whorls. Numerous axial ribs with convex upper ends overlapping the suture. Tan with white, red-spotted subsutural band, body whorl with an unspotted white band anteriorly. 29 x 4.1mm (ht x w).

Kayankerni, Thennadi Bay, empty, 3m, muddy sand.

5. *Hastulopsis pertusa* (Born, 1778) Perforated auger

[*Terebra pertusa* (Born, 1778)]

Shell weathered, partially faded with lip and apex damaged.

Straight-sided, 17+ whorls. Subsutural band with axial nodules, below which are about 5 spiral grooves crossed by fine, spaced, axial ribs. Buff coloured, subsutural band with brown between nodules. 67.64 x 10.74 mm (ht x w).

Paiyagala, beach at Paiyagala North railway station, beached. (Aysha Hettiarachchi & Eshan Fernando collected.)

6. *Impages anomala* (Gray, 1834) Wide-mouthed auger

[*Terebra anomala* Gray, 1834; *Hastula anomala* (Gray, 1834)]

Shell slender and of a graceful shape, the body whorl not at all swollen, the aperture "conspicuously dilated". Apex pointed. All whorls axially ribbed, the anterior part of the body whorl smooth. A spiral subsutural groove appears on the shell as a series of minute slits in the grooves between adjacent ribs and gradually becomes a complete groove on the body whorl. Upper whorls white, lower ones purplish, a blue-white sutural band and a white band on the anterior part of the body whorl, also showing above the suture. 28 x 6.5 mm (ht x w).

Wellawatte, Kinross lagoon, 1 m, sand, near shore. First, and only, time seen this location, burrowing in clean sand.

7. *Oxymeris crenulata* (Linnaeus, 1758) Crenulated auger

[*Buccinum crenulatum* Linnaeus, 1758; *Terebra crenulata* (Linnaeus, 1758); *Subula crenulata* (Linnaeus, 1758)]

Shell solid, suture constricted, a subsutural row of axially elongated rounded nodules. Early whorls with grooved constrictions followed by axial threads below the nodules, both fading away on later whorls. Unevenly coloured pinkish-cream, the nodules whitish. Three spiral rows of red-brown dots on body whorl, two rows showing on earlier whorls, short axial streaks of same colour between the nodules. Columella and interior cream.

110 x 23 mm (ht x w). Reported maximum is 120 mm.

Wellawatte, inshore of First reef, 2-3 m, burrowing in sand, often in sea grass beds; Mount Lavinia, beached; Kirinda, purchased, the largest shell at 155 mm with a damaged tip.

8. *Oxymeris dimidiata* (Linnaeus, 1758) Dimidiate, divided auger

[*Buccinum dimidiatum* Linnaeus, 1758; *Terebra dimidiata* (Linnaeus, 1758); *Subula dimidiata* (Linnaeus, 1758)]

Shells large, solid, with straight sides, the suture barely constricted. Axial riblets in early whorls become obsolete in later ones. A subsutural spiral groove is present. Orange with wavy yellow-cream, spaced, axial streaks. Interior whitish, columella white and light orange. 101 x 17 mm (ht x w). Reported maximum is 120 mm.

Wellawatte, Kinross, 5 m, empty and crab occupied.

Internet images show strong patterning with orange and yellow.

9. *Oxymeris maculata* (Linnaeus, 1758) Big or spotted auger, marlinspike

[*Terebra maculata* Linnaeus, 1758; *Subula maculata* (Linnaeus, 1758)]

Shell strong and heavy, sides convex. Early whorls with a constricted groove below the suture. Cream overlaid by spiral rows of light tan rectangular blotches - five on the body whorl; in early rows the edges blurred and coalescing. Two rows of purple-brown rectangular blotches, the upper row being just below the suture, the second row being reduced to dots in the early rows. The anterior of the body whorl is unmarked. Columella and interior cream. 126.32 x 32 mm (ht x w); 140 mm high, both purchased, no find data.

Reported maximum is 250 mm, the largest of the genus.

10. *Terebra guttata* (Röding, 1798) Eyed auger

[*Epitonium guttatum* Röding, 1798; *Terebra oculata* Lamarck, 1822]

Shells long and slender. Sides of whorls convex due to a low sub-spiral ridge. Growth lines on later whorls. Pinkish-beige with a subsutural row of white, axially aligned, oval macules on the spire whorls, and a second row anteriorly on the body whorl. Columella and interior cream. 105 x 21 mm (ht x w). Shell purchased, no find data.

Reported maximum is 140 mm.

11. *Terebra subulata* (Linnaeus, 1767) Subulate, chocolate-spotted auger

Shell tall and slender, the suture constricted, whorls more or less straight-sided but with a subsutural bulge. Two subsutural rows of small nodules divided by a groove in early whorls. The nodules fade away in later whorls but the groove remains, though barely visible. Growth lines occur throughout with a few spiral rows of dimples in the lower part of the whorls. Cream with large squarish chocolate brown macules in two spiral rows, three on the body whorl. Columella and interior cream, the pattern showing through. 85 x 15 mm (ht x w). Shell purchased, no find data.

Reported maximum is 150 mm.

BIBLIOGRAPHY

Abbott, R. Tucker (1994) *Seashells of Southeast Asia*, Graham Brash, Singapore.

Abbott, R. Tucker & S. Peter Dance (1982) *Compendium of Seashells*, E. P. Dutton, New York.

Dance, S. Peter Ed. (1977) *The Encyclopedia of Shells*, Blandford Press, Poole.

De Bruyne, R. H. (2003) *The Complete Encyclopedia of Shells*, Rebo Productions, Lisse, The Netherlands.

Eisenberg, Jerome M. (1989) *A collector's guide to seashells of the world*, Crescent Books, New York.

Kirtisinghe, Parakrama (1978) *Sea shells of Sri Lanka*, Tuttle, Tokyo.

Oliver, A. P. H. (1989) *The Hamlyn guide to shells of the world*, Hamlyn, London.

Poutiers, J. M. (1998) *Gastropods* In: Carpenter, K. E. and Niem, V. H. (eds.), In: *FAO Species Identification Guide for Fishery Purposes, The Living Marine Resources of the Western Central Pacific*. Vol. 1. pp. 364-686, FAO, Rome.

Siddiqui, K.U., Islam, M.A., Kabir, S.M.H., Ahmad, M., Ahmed, A.T.A., Rahman, A.K.A., Haque, E.U., Ahmed, Z.U., Begum, Z.N.T., Hassan, M.A., Khondker, M. and Rahman, M.M. (eds.) (2007) *Encyclopedia of Flora and Fauna of Bangladesh*, Vol. 17, Molluscs, 415 pp. Asiatic Society of Bangladesh, Dhaka.

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