

THE AMERICAN MUSEUM OF NATURAL HISTORY

# GUIDE TO SHELLS

*Land, Freshwater, and Marine, from Nova Scotia to Florida*

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The **Jasper Cone**, *Conus jaspideus* Gmelin (Lat. *iaspis*, jasper) (pl. XXV, 27), is about the same size as the subspecies (see below) *C. jaspideus stearnsii*—23 mm. (about 1 in.) in height and 12 mm. (about 1/2 in.) in width—and resembles it closely. It differs by being fatter, with rounded rather than straight sides, and it is usually marked with wide, deep spiral grooves over the entire body whorl; in *C. j. stearnsii* these grooves are usually found only on the lower half. The colors of the Jasper Cone Shell are brighter and the mottlings reddish brown and larger. The "typical," or nominate, subspecies occurs in southern Florida, the West Indies, and Mexico.

**Stearns' Cone**, *Conus jaspideus stearnsii* Conrad (Robert Edward Carter Stearns was an active nineteenth-century malacologist) (pl. XXV, 28), resembles *C. floridanus* in having a raised, pyramid-like spire with strongly shouldered whorls, but is less than half its size, reaching at most 20 mm. (4/5 in.) in height and 9 mm. (about 2/5 in.) in width. In color it is a dirty white, overlaid with irregular areas of light to dark brown blotches. It ranges from North Carolina to Florida.

## FAMILY:

## TEREBRIDAE

(auger shells)

Auger shells are long, narrow, attenuated; the surface sculpture is generally axially arranged, not spirally as in the Turritellidae, which have the same general shape. The operculum is narrow, and the aperture is provided with a short, twisted siphonal notch or canal. These snails live in sand and mud in warmer seas, where they prey on small invertebrates. Some forms possess a poison apparatus much like the Conidae, but their bite is not known to be dangerous to humans. In some classifications the terebras are grouped together with the Conidae and the Turridae, in the order Toxoglossa (arrow-tongue).

KEY TO GENERA TEREBRA  
AND HASTULA

- \* Axial ribs extending from top to bottom of whorls (genus *Terebra*)

- \*\* Shell outline uniformly awl-shaped, sides tapering regularly, surface rough
- \*\*\* Whorls concave *Terebra concava*
- \*\*\* Whorls flat or convex
- \*\*\*\* Subsutural band wide, consisting of strong beads *T. dislocata*
- \*\*\*\* Subsutural band narrow, beads weak *T. protexta*
- \*\* Shell outline not tapering gradually to the summit, surface smooth, glossy *T. hastata*
- \* Axial ribs confined to top of whorl, not reaching across to bottom (genus *Hastula*)
- \*\* Shell up to 40 mm. (1 3/5 in.) in height, lighter in color, surface with myriads of closely set microscopic pimples *Hastula cinerea*
- \*\* Shell up to 25 mm. (1 in.) in height, color darker, surface punctae widely separated; species confined to shores of Gulf of Mexico *H. salleana*

Genus *Terebra**Terebra dislocata* Say

Common Auger Shell

Pl. XXIV, 18

ETYMOLOGY: Lat. *terebra*, borer, auger; *dislocatus*, disarranged.

SIZE: 50 mm. (2 in.) in height, 12 mm. (1/2 in.) in width.

DISTRIBUTION: Virginia to Florida, Texas, and the West Indies.

CHARACTERISTICS: Shell medium, slender, rough, multiwhorled, high, narrowly conical. Color gray, or pinkish or orangish white. Surface sculpture of about twenty-five short, strong axial ribs on each whorl, separated from other whorls by a beaded spiral band below the suture; spiral cords weak. Aperture small; outer lip thin, leading to a short, curved siphonal notch. Operculum corneous, thin, yellowish brown.

Shells of this common species are found intertidally and in shallow water on muddy sand. These snails are carnivores, living on marine worms and other small invertebrates.

The **Fine-ribbed Auger Shell**, *Terebra protexta* Conrad (Lat. *protextus*, in front of the weaving) (pl. XXIV, 19), reaches only 20 to 25 mm. (4/5 to 1 in.) in height. It is dull white or brownish in color. The axial ribs are more widely spaced than in *T. dislocata*, and are crossed by seven to nine strong spiral cords on each whorl. The subsutural

band is less pronounced, and the beads much weaker. This species ranges from North Carolina to Florida and Texas; it lives in somewhat deeper water than the Common Auger Shell.

The **Concave Auger Shell**, *Terebra concava* Say (pl. XXIV, 20), is recognized chiefly by the distinctly concave-sided whorls, causing the roughly beaded subsutural lines to project beyond the rest of the surface. In addition, there are about twenty very small beads arranged in a spiral row and some very weakly incised spiral lines in the middle of each whorl. The shell, which is about 25 mm. (1 in.) in length, is yellowish gray and moderately glossy. It ranges from North Carolina to Florida in shallow water.

The **Shiny Auger Shell**, *Terebra hastata* Gmelin (Lat. *hastatus*, armed with a spear) (pl. XXIV, 21), differs from the other auger shells by having a "fatter" outline, with the upper whorls of the spire tapering more rapidly than the lower whorls. The shell reaches 40 mm. (1 3/5 in.) in height; it is glossy and bright yellow or light brown, with a white band below the suture. The species ranges from southeastern Florida, where it is rather rare, to the West Indies.

#### Genus *Hastula*

##### *Hastula cinerea* Born

Gray Atlantic Auger Shell

Pl. XXIV, 22

ETYMOLOGY: Diminutive of Lat. *hasta*, spear; *cinis*, *cineris*, ashes.

SIZE: Up to 50 mm. (2 in.) in height, 10 mm. (2/5 in.) in width.

DISTRIBUTION: Southeastern Florida and the West Indies.

CHARACTERISTICS: Shell medium, slender, glossy, high turreted; apex sharp.

Color cream or bluish brown, occasionally dark spotted near the suture.

Surface sculpture of numerous small riblets at the top of each whorl, not extending to the bottom, and with very fine rows of closely set microscopic punctae.

The shells of the genus *Hastula* differ from true *Terebra* in having the axial ridges arranged only along the top of the whorls. This is a slight morphological difference, but more fundamental differences are found in the anatomy, radula, and life history of both groups. It is only recently that *Hastula* was afforded generic recognition; it was formerly considered to be a subgenus. Both genera live together in shallow water.

**Sallé's Auger Shell**, *Hastula salleana* Deshayes (A. Sallé was a prominent traveler and collector) (pl. XXIV, 23), is smaller than *H. cinerea*, reaching only 25 mm. (1 in.) in height; it is somewhat darker in color. The tiny punctae on the surface are far less numerous and much more widely separated. It has been recorded only from the west coast of Florida to Texas and the coast of Mexico, thus being confined to the shores of the Gulf of Mexico.

#### FAMILY:

### TURRIDAE

(turret shells)

The turret shells constitute by far the largest single family of gastropods. About 250 genera and subgenera are presently recognized, and there are estimated to be about 1,500 living species; at least as many extinct fossils are known, and many new species are being described yearly. Recently the description of 50 new forms off the West Coast of North America appeared in print, showing how, in even comparatively well-explored areas, many unknown forms still exist.

The correct determination or identification of most turrid species is a frustrating experience for amateur and professional alike. The generic and particularly the specific differences are not easily detected, especially if large series of shells are being examined. Unfortunately, there is no reliable monograph of the East Coast species available, and the authors of the most generalized shell books do not always agree on the names of the shells they discuss.

Luckily, though the determination of genus and species is difficult and complicated for most forms of turrids, it is comparatively easy, at least, to recognize what shells belong to the turret shell family. They are characterized by the presence of a notch, which varies in size and prominence, near the upper end of the outer lip, and it may extend to the suture itself. This is called the "turrid notch," for it is most conspicuous in turrid shells. A similar notch occurs in some cone and auger shells, but is not as prominent. When these snails crawl, the upper end of the aperture is held toward the back of the animal. Therefore, the turrid notch is also called the "posterior," or "anal," notch. The shells vary in form, but are mostly spindle shaped, slender, and long, and have high, sharp spires. In size they range from less

PLATE XXIV / Marine Snails

1. Golden-mouthed Triton Shell, *Cymatium nicobaricum*, 67 mm., p. 116.
2. Blackberry Drupe Murex, *Morula nodulosa*, 19 mm., p. 128.
3. Atlantic Oyster Drill, *Urosalpinx cinerea*, 27 mm., p. 128.
4. Thick-lipped Oyster Drill, *Eupleura caudata*, 25 mm., p. 129.
5. Sharp-ribbed Oyster Drill, *Eupleura sulcidentata*, 20 mm., p. 129.
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8. Cross-barred Lesser Whelk, *Cantharus cancellaria*, 31 mm., p. 137.
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10. Well-ribbed Dove Shell, *Anachis translirata*, 11 mm., p. 140.
11. Spotted Dove Shell, *Nitidella ocellata*, 12 mm., p. 141.
12. Plum Margin Shell, *Prunum apicinum*, 12 mm., p. 158.
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