

Shell of the Month

by Dr. Rick Batt

Turbinella angulata (Lightfoot, 1786) (West Indian Chank Shell)

The relatively few species of Chank Shell (genus *Turbinella*) inhabit shallow Tropical waters along the western edge of the Atlantic Ocean and Caribbean Sea as well as the edges of the Indian Ocean. They belong to the family Turbinellidae, which also includes the smaller Vase Shells and the giant Australian Trumpet Shell. The carnivorous animals feed on worms and clams, and they lay their eggs in horny capsules that look like papery wafers strung on a line. Chank Shells in general tend to be relatively large, thick, and often surprisingly heavy, fusiform in shape with a high spire and a long, broad siphonal canal. There are three or four widely-spaced folds on the columella along the inner edge of the aperture. The name “chank” is derived from *shankha*, meaning “divine conch”, referring to the Indian species *Turbinella pyrum* (Linnaeus, 1758), rare left-handed forms of which were considered sacred by Hindus.

The West Indian Chank is one of the largest gastropods in the Atlantic Ocean, with the largest recorded specimen just under 500 mm (20 inches) in length, although most specimens are within the range from about 120 mm to 300 mm (5 inches to 12 inches). It is common from the Bahamas and Florida Keys through the Greater Antilles and Jamaica as well as along the western Caribbean from the Yucatan Peninsula of Mexico south along Central America to Colombia, on shallow subtidal and offshore mud, sand, or rocks to depths of 45 meters (about 150 feet).

The heavy shell of *Turbinella angulata* usually has 8 to 10 prominent axial ribs that usually extend into nodes on the angled shoulder. Otherwise the shell is relatively smooth with spiral threads on the spire and upper and lower parts of the body whorl. The color is creamy white, but the aperture is often edged with pink or orange. In life, the shell is covered by a thick dark brown periostracum, and the horny operculum is much too small to completely cover the aperture.

The first picture below shows a few smaller specimens from my collection (US quarter for scale): 87 mm (3.4 inches) from the Florida Keys; 132 mm (5.2 inches) from Eleuthera in the Bahamas; and 221 mm (8.7 inches) from the same locality. At the bottom of the picture is an egg-case of this species from the Bahamas.



The second picture shows three larger specimens: 341 mm (12.6 inches) and 397 mm (15.6 inches) from Eleuthera, Bahamas; and 315 mm (12.3 inches) from Jamaica.



Specimens from the Yucatan Peninsula of Mexico and the western Caribbean Sea have features that make them look significantly different from typical specimens of *Turbinella angulata* found further east, leading to the introduction of two species names for these: detailed study has since indicated that these names should be considered as subspecies or simply geographic variations. Specimens from along the Yucatan Peninsula can be referred to as *Turbinella angulata scolymoides* Dall, 1890 (considered by some as a synonym of the fossil species *Turbinella wheeleri* Petuch, 1994 from Florida). The shells often have less developed sculpture than the typical form, with more prominent spiral threads. Shells can be quite elongate, or they can be squat with a short siphonal canal. Both of these varieties of *Turbinella angulata*

scolymoides are shown in the next picture: 375 mm (14.8 inch) elongate form from off Cozumel; and 343 mm (13.5 inch) squat form from Quintana Roo. Third in this picture is a fossil specimen of this subspecies from the Pliocene/Pleistocene Caloosahatchee Formation of southern Florida for comparison.



The other form (subspecies?) of West Indian Chank, found along the Caribbean coast of Central America south to Colombia, can be referred to as *Turbinella angulata scolymus* (Gmelin, 1791). This distinctive form has typically six prominent axial ribs terminating in prominent up-turned nodes along the shoulder, and can also be distinguished from the other forms in that there is a fairly prominent undulating raised cord connecting the summits of the shoulder nodes. The final picture shows two specimens of *Turbinella angulata scolymus*: 299 mm (11.8 inches) from Belize; and 315 mm (12.4 inches) from Honduras.

