

Shell of the Month

by Dr. Rick Batt

Charonia variegata (Lamarck, 1816) (Atlantic Triton's Trumpet)

The genus *Charonia* includes several generally large species in the family Ranellidae, a widespread group of gastropods found in Tropical and Warm Temperate waters. The Atlantic Triton's Trumpet, *Charonia variegata* (Lamarck, 1816) and the closely-related Pacific Triton's Trumpet, *Charonia tritonis* (Linnaeus, 1758) get their common name from the Greek god Triton, the son of Poseidon the god of the sea. Old images depict Triton blowing into a shell horn, and holes have been drilled into the spire of the Pacific species so they could be used as horns in religious ceremonies as well as by fishermen.

The shells of both the Atlantic and Pacific species have an inflated body whorl and a tall spire, and each whorl typically has one or two varices (a varix is the edge of the flared outer lip representing a pause in growth). They are ornamented with broad, flattened spiral cords with grooves in between. Both species have a color pattern that is variegated or mottled, with the spiral cords bearing buff, brown, or purplish crescents on a pale background. Atlantic Triton's Trumpet shells are typically between 130 and 250 mm (about 5 to 10 inches) in size, but specimens can reach more than 360 mm (14 inches), with rare individuals exceeding 380 mm (15 inches) reported. The Pacific Triton's Trumpet may be larger, reaching more than 450 mm (17.7 inches).

While the Atlantic and Pacific Triton's Trumpets do look similar to each other, they can easily be distinguished by looking at the columella (inner lip of the aperture). The columella of the Atlantic Triton's Trumpet bears narrow, raised whitish teeth separated by relatively wide dark brown or black areas, while in the Pacific species the raised whitish "teeth" are wider, with narrower dark areas in between. Also, the shell of the Atlantic Triton's Trumpet tends to have a squatter spire and often (but not always) has unevenly swollen lower whorls with a heavy angled shoulder. The first picture below compares these two species to show these differences. On the left is my largest specimen of an Atlantic Triton's Trumpet (362 mm or 14.25 inches), from Puerto Rico; on the right is a 449.7 mm (17.7 inches) specimen of a Pacific Triton's Trumpet from Mozambique.



The second picture shows a few examples of Atlantic Triton's Trumpet in my collection (US quarter for scale): 284 mm from the Bahamas; 311 mm from Puerto Rico; and 281 mm from the Florida Keys.



Both species of Triton's Trumpet are widespread. The Pacific Triton's Trumpet extends from eastern Africa across the Indian Ocean into the western Pacific Ocean, with occasional specimens found as far east as Hawai'i and even the Galápagos Islands. The Atlantic Triton's Trumpet extends along the western Atlantic Ocean from North Carolina south through the Bahamas and Florida Keys and west to Yucatán, Mexico, then south through the entire Caribbean Sea and along the coasts of Brazil and northern Uruguay. It is also found in the eastern Atlantic Ocean in the Canary Islands, Cape Verde Islands, and along the northwestern coast of Africa, as well as in the western part of the Mediterranean Sea. Specimens found in the eastern Mediterranean, considered by some to represent the same species, are considered by others to be a third species of Triton's Trumpet, *Charonia sequenzae* (Aradas and Benoit, 1871), which is suggested to have closer affinities with the Pacific species. These wide distributions are facilitated by the planktonic veliger larvae, which can drift for as much as three months – plenty of time to carry them across the oceans in a current like the Atlantic's Gulf Stream.

Atlantic Triton's Trumpets commonly inhabit depths from less than a meter to 15 meters (50 feet), though a thinner-shelled, light-weight deep-water form can be found down to nearly twice that depth. They are most often found under overhangs and in recesses, but occasionally can be seen out in the open hunting for food. Active predators, they feed on sea stars ("starfish"), sea urchins, and occasionally other mollusks. After pursuing and capturing dinner, they can use their toothy radula to saw through armor as they subdue their prey with a paralyzing saliva.

Atlantic Triton's Trumpet shells not only can be variable in shape, but they can vary in color. Many specimens have a pinkish overall cast, but some are more chocolate in overall color, and occasional specimens are found with an overall orange or "golden" color. The final two pictures show more examples of Atlantic Triton's Trumpets and their variability. From left to right in the first picture: 213 mm orange color form from Puerto Rico; 166 mm orange color form from Haiti; 155 mm light-weight deep-water form from Cuba; and a 209 mm deep-water specimen from Puerto Rico. In the last picture: 326 mm deformed specimen from Brazil; 294 mm specimen from Uruguay, with more pronounced spiral cords; 253 mm from the Cape Verde Islands in the eastern Atlantic Ocean; and a 214 mm specimen from Cyprus in the eastern Mediterranean (the form considered by some to be the species *Charonia sequenzae*).

