

Shell of the Month

by Dr. Rick Batt

Syrinx aruanus (Linnaeus, 1758) (Australian Trumpet Shell)

Syrinx aruanus (the Australian Trumpet Shell), the only species in its genus, is the world's largest living snail. Once considered to be a member of the family Melongenidae (the same family as the Florida Crown Conch), it was moved to the family Turbinellidae (the family including Chank Shells and Vase Shells) in 1989 after a detailed study, including recognition of the very similar protoconch and egg cases.

Australian Trumpet Shells are relatively common along the coasts of the northern half of Australia, Papua-New Guinea, and eastern Indonesia. They frequent sandy bottoms from the intertidal area down to depths of about 30 meters (100 feet). These carnivorous animals are specialized for feeding on long polychaete tube worms. In turn, their meat is used for food by the locals, while their shells are used for a variety of purposes: as a water carrier; as a trumpet (with a hole drilled into the spire), and even (ground up) as a source of lime. Indigenous men of Australia used to make half-moon-shaped nose pins (*imiua*) from the shell.

The spindle-shaped shell of an Australian Trumpet has a high, conical spire and a long, broad siphonal canal. The whorls usually have a strong keel along the shoulder, and small nodes are present on earlier whorls. The color is usually pale apricot, but often fades to a creamy yellow. In life the shell is covered by a thick gray or brown periostracum, and the aperture is partially closed by a large, horny operculum.

The protoconch, the embryonic shell that makes up the earliest whorls of larger specimens, is long and tower-shaped, made up of several whorls, and can reach more than 25 mm (one inch) in length. It looks so different from adult shells that at one time it was even considered to be a different species! This portion of the shell usually breaks off early in the animal's life, so it is usually missing in specimens greater than about 20 cm (9 inches).

The first picture shows some smaller specimens of *Syrinx aruanus* in my collection (US quarter for scale). Two embryonic specimens taken from egg-cases found near Broome, northwestern Australia (31 and 43 mm: 1.2 and 1.7 inches) on the left are followed by: 85.4 mm (3.3 inches) from the same locality; 150 mm (6 inches) from Northern Australia; 210 mm (8.2 inches) from near Broome; and a 250 mm (10-inch) specimen with the periostracum intact from near Onslow, Western Australia. Notice that all of these specimens still have an intact protoconch. At the bottom of this picture is an egg case, collected near Broome. The second picture is a close-up of an embryonic shell (23 mm, nearly 1 inch) from Broome.



The third picture shows three larger specimens in my collection: 513 mm (about 20 inches) from Indonesia with the periostracum intact; a heavy 560 mm (22 inch) shell from Sulawesi Island, Indonesia; and a partly albinistic specimen from the Moluccas Islands, Indonesia (554 mm, nearly 22 inches).



The final picture is with my largest specimen of *Syrinx aruanus*, collected in deep water off Cape Arnhem in Australia's Northern Territory. The specimen measures nearly 700 mm (27.5 inches) in length.

