

## *Porpita porpita* and the naming of things

Article & photos by Anita Westervelt, South Texas Border Chapter

Scientists, as we were taught in the early days of our Texas Master Naturalist training, use a two-name system called a Binomial Naming System, naming plants and animals using a system that describes the genus and species of the organism. The first word is the genus and the second is the species. It's as simple as that.

It's all about nomenclature – which comes from a Latin word meaning the assigning of names – so no matter where in the world, the naming system brings clarity to discussions about organisms. Synonymous with nomenclature are other words, like classification and taxonomy.

A tautonym, on the other hand, is a scientific name of a species in which both parts of the name have the same spelling, such as *Anhinga anhinga*, which is a large local waterbird similar to a cormorant.

In accord with the current Code of Nomenclature, tautonyms are explicitly prohibited for botanical names, but allowed in zoology. Marine life is full of tautonymously-named critters; some periodically come ashore and have fun names like *Porpita porpita*, which is a striking-looking, vibrant blue sea creature commonly known as **blue button**. It is found along our beaches and other parts of the Gulf of Mexico, the Pacific, Atlantic and Indian oceans.

It is not a jellyfish, although superficially similar. It is in the Phylum Cnidaria, which is the group of animals that also includes corals, jellyfish, sea jellies, sea anemones and sea pens.



Blue button (*Porpita porpita*)

Blue button has two body parts, a float and a hydroid colony. The gas-filled float is a disc-like shape about one inch in diameter and considered the main body; the hydroid colony are the branches that extend out and look like tentacles. They can be bright blue, purple or turquoise in color. Each branch ends in knobs of stinging cells called nematocysts.

Blue buttons don't swim; they live on the surface of the sea, floating, drifting and moving with the winds, currents and tides; they usually wash ashore during the summer months. Blue buttons eat plankton and other small organisms.

The scientific name for **Portuguese man-o'-war** (*Physalia physalis*) is not a tautonym because the genus and species names differ – by one letter, a common practice. Regardless, these sea creatures are quite likely to be found beached on our Texas shores. They are a study in blues, clears and pinks – a pretty and interesting looking beach find that is exciting to photograph but not to touch!



So named because its inflated pneumatophore, which can float half a foot above the ocean surface, resembles the sail of an 18<sup>th</sup>-century Portuguese warship. The enlarged float is filled with carbon monoxide and air and is used as a sail that can be blown by the wind for thousands of miles, dragging long tentacles behind it, that deliver a deadly venomous sting on contact to fish. The tentacles can stretch 165 feet below the surface, although the average length is 30 feet – still a significant length to anything or anyone tangling with them. Portuguese man-o'-war feeds mainly on young fish or small adult fish, shrimp and other crustaceans and other small

animals in the plankton.

Portuguese Man-O'-War (*Physalia physalis*)

It is not a jellyfish but is closely related; it is a species of siphonophore. A floating hydrozoan, it is actually a colony consisting of four types of polyps: the float, tentacles, feeding zooids and gonozooids which produce gametes for reproduction. Cnidocytes, the stinging cells, are located in the tentacles, the cells of which retain their potency long after the creature has been washed ashore.

**Atlantic sea nettle (*Chrysaora quinquecirrha*)** is a jellyfish. They aren't blue and can easily be missed in the sand: they are mostly translucent with symmetrically placed brownish patterns on the body. The body itself is perfectly symmetrical. Sea nettles live in oceans worldwide. There are 15 known species that differ in size, color and tentacle number, depending on the species. They are subject to the whims of the ocean currents and are particularly abundant near the surface in coastal waters. Like other jellyfish, they are carnivores. The tentacles are covered with nematocysts; each having a trigger that injects venom upon contact.

Atlantic sea nettle (*Chrysaora quinquecirrha*)



Water jelly (*Rhacostoma atlanticum*)



Another colorless critter to find on local beaches is listed as **lined water jellyfish (*Rhacostoma atlanticum*)** by [www.iNaturalist.org](http://www.iNaturalist.org) and as **many-ribbed jellyfish** in Texas A&M University's Texas Marine Species log. Wikipedia has a short write-up about it, saying that *Rhacostoma* is a genus of *aequoreid* hydrozoans. It is monotypic with a single species: *Rhacostoma atlanticum*. It has been found from the Atlantic coastline of North America, Columbia, western and central Africa.

Also called water jelly and crystal jelly, it is not a true jellyfish, but a hydroid. It has no color and can be translucent to transparent and on land, could be described as a thick-set, gelatinous blob the shape of a hockey puck. It has wart-like bumps on the underside of what would be considered the bell if it were afloat. The underside center has a smooth circular area devoid of ridges. Hydrozoa are carnivorous, feeding mostly on small crustaceans, fish eggs and other larvae. It has very fine tentacles that do not sting – many beach finds of the gelatinous sort would do well with being photographed and not handled and left for the next beachcomber to come along.