

SAILING SEA JELLIES

Back in 1883, a young man named Morton MacMichael III traveled on a merchant ship from Philadelphia to San Francisco. One morning, as they were sailing in the tropical Atlantic Ocean, they steered through “vast numbers” of strange animals. MacMichael wrote: “Passed through a fleet of...those renowned little creatures of the jelly-fish species, that spread their tiny film-like sails in delicate shades of pink and blue, and cruise about over the waves....The sunlight playing on the thousands of rising and falling sails made a pretty picture.” With a bucket, MacMichael caught one of the delicate jellies and brought it on deck. When he turned away from his catch for a moment, the ship’s cat darted over, dipped her paw in the bucket, and ran away with the sea jelly. The cat “dropped it with a terrified yowl, and vanished into...the galley, as though a dozen dogs were at her heels. During the rest of the day she sat in a corner, uttering plaintive meows, and alternately rubbing her cheeks on the deck or scraping her swollen tongue with one of her front paws.”

MacMichael’s animal was a Portuguese Man-of-War, which is one of two types of sea jellies with parts that act as sails to move them across the water. The second kind is much smaller and is called a By-the-Wind Sailor. We find them both in warm waters, but they can float to colder latitudes when strong currents and winds push them there.

Sea jellies have no bones, are 95% water, and are mostly clear. Both the Man-of-War and the By-the-Wind Sailor are actually colonies of different individuals that act as one unit.

The Man-of-War can be tinted pink, blue, and purple. Some people call it a “Blue Bottle.” It can grow up to one foot long and has tentacles that can spread down into the water well over fifty feet. On these tentacles are stinging cells, which capture and kill its food—mostly fish. These stingers are powerful enough that they can kill a grown man and can be poisonous even

after the Man-of-War has died. Flanders and Swann wrote this ditty:

*I do not care to share the seas
With jellyfishes such as these,
Particularly...Portuguese.*

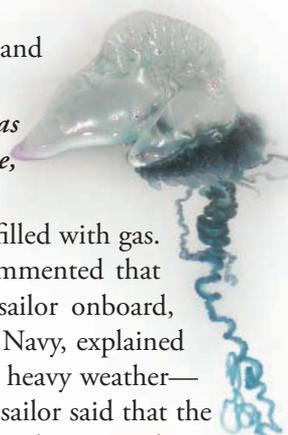
The Man-of-War’s “sail” is a float filled with gas. In 1853, a traveler onboard a ship commented that the float collapsed when touched. A sailor onboard, who had no respect for the Portuguese Navy, explained to him that the Man-of-War deflates in heavy weather—which is how they got their name. The sailor said that the sea jelly “takes in all sail, or goes chuck to bottom, when it ‘gins to blow a spankin’ breeze.” Others believe they got their name because their floats look like helmets of Portuguese conquistadors or like the old Portuguese ship known as a *caravela redonda*.

The By-the-Wind Sailor grows no larger than the palm of your hand. It eats tiny animals and fish eggs. Like the Man-of-War, its sail is at one of two angles for its whole life. It can only sail in one direction away from the wind, while its “sister,” with its sail in the other direction, can only travel the opposite way. There are regular reports from all over the world of millions of By-the-Wind Sailors washed up on beaches when there’s been a change in the wind direction and currents. The little sea jellies couldn’t steer off the rocks!

Scientists, however, think that both the Man-of-War and the By-the-Wind Sailor do have some control in how they adjust their bodies to the weather. By-the-Wind Sailors have also evolved an amazing structure to their sails. To survive in heavy winds, they are triangular (so the pressure is closer to the surface), slightly flexible (consider how a tree bends in a storm), and shaped in an “s” (to increase its strength—try this with a piece of paper).

Though By-the-Wind Sailors don’t sting nearly as much as the Portuguese Man-of-War, if you do find them on the beach, it’s best to not handle them with your bare hands. And maybe keep your cat away from them, too!

Next issue: a huge white gobbler of shrimp-like things. ⚓



PORTUGUESE MAN-OF-WAR
(PHYSALIA PHYSALIS)

BY-THE-WIND SAILOR
(VELELLA VELELLA)

