

body, seem to run out as a cable runs from a ship. We have sought in vain for any definite solution of the function of these threads, and are compelled to offer one derived from our own observations. Besides the locomotive power derived from the longitudinal zones of fringes, the body will be seen to oscillate to and fro; this motion being produced by the alternate contraction and relaxation of these threads, the resistance offered to the water by the sudden contraction of the expanded threads being sufficient to oscillate the body. The Jelly-fish in question, unlike most members of the class, swim with the mouth upward, and the appendages start from the pole opposite the mouth; and, since the mouth is unprovided with any organs whereby to grasp food, the mouth has the power of sweeping back and forth in the water by the oscillations of the body, affording greater chances of coming in contact with their food. It has the power of seizing little shrimp-like animals; and a singular sight it is to see this Jelly-fish, with its repast perfectly visible within its transparent body.

There are two other forms of Jelly-fishes not uncommon in our waters, which have the zones of locomotive fringes, but have no trailing appendages, as in the species just described. One of these forms is called *Bolina*, and is somewhat larger than *Pleurobrachia*, being pear-shaped, and the larger end divided into two lobes which surround the mouth. These lobes have the power of expanding and contracting, and the contour of the animal is materially altered by their movements. They may sometimes be seen gaping wide, disclosing the mouth, and ready to entrap its food, and again so contracted that the mouth is quite hidden.

Another form, called *Idyia*, is long and cylindrical, like a tube, rounded and closed at one end, the other abrupt and open. The open end constitutes the mouth: in fact, it is hardly more than a locomotive stomach. This Jelly-fish has more consistency than those heretofore described, and is quite opaque. At certain seasons of the year they are pinkish in color. An individual of this species, when confined with *Pleurobrachia*, soon manifests its carnivorous propensities by attacking, and often swallowing, the *Pleurobrachia* whole. It does not appear daunted if its victim proves

larger than itself, but slowly, patiently engulfs its victim; and a curious sight it is to see the *Idyia*, directly after this feat is performed, presenting the appearance of a tight skin drawn around the innermost Jelly-fish, though in a short time its food is digested, and the *Idyia* resumes its normal shape, and not in the least augmented in size. It probably requires a dozen or more of such game for an ordinary lunch. This statement will not be wondered at, if the experiment is tried of drying a specimen of *Pleurobrachia* on a white card, and finding nothing left but a few crystals of salt. The vitality of these Jelly-fishes is remarkable: they can be cut in several pieces, and yet each piece will remain alive for a long time in the water; and one naturalist, after having cut an *Idyia* in half longitudinally, observed one half to enfold and digest another Jelly-fish.

The three forms thus far described are common representatives of an order of Jelly-fish called *Ctenophoræ*, or Comb-bearers, the fringes or paddles having been compared by some writers to the teeth of a comb. These fringes form a distinguishing trait of the order. The members of this order are reproduced directly from eggs.

We will now consider another order of Jelly-fishes called *Discophoræ*, or dish-like Jelly-fishes, since the form of many species presents a dish-like appearance. Members of this order are very conspicuous in the water, owing to their large size, their opacity, and the distinctness of their egg-pouches. They have no zones of locomotive fringes, but hanging below the disk and surrounding the mouth are numerous appendages, and surrounding the border of the disk is seen a delicate fringe of threads interrupted at regular intervals by little dots called eyes. These Jelly-fishes swim in the water by successive expansions and contractions of the disk, making a motion something like the motion made by the partial closing and opening of an umbrella. This motion is very leisurely performed, and the animal appears drifted by the currents and eddies with but little power to direct its course.

Our most common species, the *Aurelia*, occurs abundantly in our bays, sometimes in vast multitudes. When full-grown they measure from twelve to fifteen inches in diameter.