

in our seas, we may therefore conjecture that a warmer climate is essential to them. Their general functions, beyond that of illuminating the great theatre in which their Creator has placed them, and probably affording food to some of the inhabitants of the seas in which they are found, have not yet been ascertained. Neither of the orifices of these little animals is furnished with tentacles, but their branchial orifice is toothed; in this they appear to differ from the great majority of aggregate animals. We may conjecture that when the water passes into the tube the diaphragm is either dropped or elevated to admit it, and then resuming a horizontal position closes the orifice so that the water is forced into the interior aperture of the individual animals, and passes out, as above described, by the exterior one. Food-collecting tentacles, therefore, would in this case be unnecessary, as their food would enter their mouths with the water. Providence thus taking care to compensate by this contrivance for the want of the ordinary instruments.

Some of the Tunicaries are stated to have recourse to a singular mode of defence. When seized by the hand, contracting themselves forcibly, they ejaculate the water contained in their cavities, so as often suddenly to inundate the face of the fisherman, who in the astonishment of the moment suffers the animal to escape. If this be a correct statement, it proves that these animals are not altogether without some degree of intelligence; they know when they are assailed, and how to repel the assailant.

Having given some account of the most interesting of the *aggregate* Tunicaries, I am next to notice the *simple* ones.—In these the two orifices by which the sea-water is received and expelled are not at opposite extremities, but usually approximated, one being higher than the other and furnished with tentacular filaments. The animals are fixed to rocks, shells, and sometimes to sea-weeds, and are either sessile, or