

through it. The muscle bands end abruptly by dividing each into two or three conical processes, which suddenly taper off in the manner so characteristic of the muscle bands in the genus *Corella*, and also, as will be seen below, of those in the mantle of *Abyssascidia wyvillii*.

The branchial sac is the most striking form known in the Ascidiidæ, and has a very remarkable shape, its ventral, and especially its posterior, edges being greatly prolonged, so that its posterior end comes to be much the widest part (Pl. XXV. fig. 2). It is wonderfully delicate and somewhat like a spider's web. The regularly arranged transverse vessels are united by very narrow longitudinal tubes (Pl. XXV. fig. 6, *w.l.*), so as to form large squares in which the spirals are placed. All the vessels are very thin, with wide spaces between them, and the spirals are converted into either squares or polygons by the presence of four or more straight vessels radiating outwards from the centre of each of the spirals to the four corners, and sometimes to the sides of the circumscribed square (Pl. XXV. fig. 6, *r.v.* and *r.'v.*)

The internal longitudinal bars are very delicate, and are borne on the apices of long triangular membranous flaps or connecting ducts, which arise from the transverse vessels, but are connected by no horizontal membranes. These flaps arise at the corners of the squares (Pl. XXV. fig. 6, *c.d.*), and in the middles of their upper and lower sides; consequently an internal longitudinal bar runs across the middle of each square containing a spiral, and there are twice as many true meshes as there are of these squares. The true meshes (formed by the transverse vessels and the internal longitudinal bars) are elongated antero-posteriorly.

In the first specimen examined, the languets along the dorsal edge of the branchial sac were all of one size, triangular in shape, not long, and placed in a double row (Pl. XXV. fig. 7). In one of the other individuals, however, they were found to be much narrower and more elongated, of two distinct sizes, occurring alternately, and placed in a single row (Pl. XXV. fig. 8). The difference is considerable, but scarcely sufficient to warrant the establishment of a distinct species.

The numerous tentacles (Pl. XXV. fig. 5, *tn.* and *tn.'*) are very long and thin. The longer ones are as a rule about twice the length of the shorter ones. The endostyle is inconspicuous, and runs from the neighbourhood of the branchial aperture apparently only as far as the narrow end of the sac near the point of attachment of the peduncle (Pl. XXV. fig. 2, *en.*).

The alimentary and reproductive viscera are in many respects like those in the genera *Corella* and *Abyssascidia*. As in the latter genus, they are very small compared with the size of the body and of the branchial sac. They form a compact elongated mass, lying along the dorsal edge of the sac, and a little on its right side (Pl. XXV. fig. 2). The œsophagus opens at the dorsal edge, about one-half of the way down the branchial sac, and runs posteriorly for a short distance, and then opens into the narrower