

into the lumen of the canals. From an examination of the often very obviously marked axial canals, it may be seen that the rays of adjacent dictyonalia are partly fused in the familiar longitudinal fashion (somewhat as in *Farrea*), partly in a more irregular arrangement, crossing one another arbitrarily, or connected at the intersections. Sometimes all the six rays are concerned in the formation of the network, which lies approximately in one plane—an arrangement which is obviously only possible through the great curvature of some rays. Usually, however, one ray is bent at right angles or obliquely inwards, and is provided with a free point, which projects into the canals on either side. Where the margins of three adjacent canals meet one another, the lattice-like networks are slightly separated, and an irregular interspace is thus formed.

As in *Aphrocallistes bocagei*, the dermal marginal pegs of the dictyonal framework stand at right angles to the dermal membrane, while the longer gastral marginal pegs are in part curved inwards. The pegs on the inner surface sometimes project obliquely towards the dermal surface into the lumen of the canals, and are sometimes applied quite close to the surface of the wall, but the free tuberculated end is always directed outwards towards the dermal membrane.

The beams of the meshwork often appear almost entirely smooth, while in other cases they are more or less richly beset with small tubercles. The freely projecting pegs all exhibit a rough or tubercled surface.

The dermal skeleton is distinguished by the strong development of the distal fir-tree-like ray of the dermal hexacts. This is richly pronged and more bushy than in the other species of the *Aphrocallistes*. The numerous scopulæ, which are present in the dermal skeleton, exhibit a shaft which runs to a point beneath, and forks externally into two, more rarely into three branches, after forming a simple expansion or an annular thickening. The branches are rough on their outer extremities, and terminate either in a simple rounded manner (Pl. LXXXV. fig. 7), or in a very slight knob-like thickening.

In the gastral membrane, as in *Aphrocallistes bocagei*, the hexacts are replaced by simple, straight, rough or pronged diacts of variable length, with rounded extremities and central knots (Pl. LXXXV. fig. 6); pin-like monacts are also scattered here and there (Pl. LXXXV. fig. 10). Whether the scopulæ, which are entirely absent in the gastral skeleton of *Aphrocallistes bocagei*, occur in the present instance remains doubtful. It is true that in the dried specimen and on the inner side of the cup-wall scopulæ occur which, like the dermal, consist of a terminally pointed shaft, and of two, more rarely three knobbed and externally roughened branches, but I am not sure that these are not subsequent extrinsic intrusions.

The uncinates are distinguished by their length and also by the fact that their greatest dilatation usually lies much nearer the dermal than the gastral extremity. This latter appears much more slender, and usually runs out into a smooth (Pl. LXXXV. fig. 2) point, which is less frequently beset with lateral prongs. It is important to note