

The oral plate of *Ophiactis* is rather wing-shaped and higher than long, the notch for the ring nerve being very conspicuous; the articular ridges and grooves are indistinct on both sides. The abradial muscular area, which is well developed, occupies the greater part of abradial flank and is roughly ear-shaped in outline; the upper portion protrudes distally like a wing. The adradial area is large, vertical and essentially spoon-shaped, the upper portion being strongly enlarged. In *O. hemiteles* the abradial muscular area is entire, while that of *O. savignyi* bears a distinct notch in the middle of the distal margin, which divides dichotomously dorso-ventrally at a short distance from its entrance. The abradial muscular areas of *O. macrolepidota* and *O. modesta* are completely divided into two pieces dorso-ventrally by a median transverse interval; in the latter species each piece is distinctly notched in the middle of the inner margin, while in the former no such indentation is to be seen. The adradial muscular area varies in its characters. In *O. hemiteles* it is perfectly spoon-shaped, while in *O. modesta* and *O. savignyi* it is broadly divided into two portions by the disappearance of the middle narrow part. In *O. macrolepidota* only the enlarged upper portion remains, the narrow lower part being entirely absent (Pl. IV, figs. 35-42). The oral plate of *Ophiopholis*, which belongs to the same category as that of *Ophiactis*, is higher than long, with abradial and adradial muscular areas well developed. The abradial muscular areas of *O. aculeata* var. *japonica* and *O. brachyactis* are entire, while that of *O. mirabilis* has a branched notch at the middle of the distal margin like that of *O. savignyi*. The adradial areas of these species are completely spoon-shaped as seen in *O. hemiteles* (Pl. IV, figs. 43-46).

The dental plate of the Amphiurinae, which differs from that of the Ophiactinae in outline, is generally wedge-shaped and gradually tapering downwards, the upper margin being broadly rounded or truncated, the lower end narrow. The foramina, which lie on the upper portion of the plate in the Ophiactinae, are very remarkable; either the uppermost one or the next is the largest, but they become abruptly reduced in size in succession downwards. The depressions are rather indistinct and form a continuous vertical series along the median line together with the upper foramina. On the other hand, the oral plate of this subfamily is essentially similar to that of the Ophiactinae. It is also wing-shaped and mostly higher than long, the proximal portion being conspicuously enlarged; the notch for the ring nerve on the dorsal margin is very conspicuous. The abradial muscular area is well developed so as to form a conspicuous distal wing. The adradial area is also large and generally vertically spoon-shaped, with an enlarged upper portion, but the middle or lower portion is sometimes missing.

The dental plate of *Amphioplus platyacanthus* is a little less than two and a half times as long as broad, and rather swollen on the ventral part, thus being not of the typical wedge-shape, its lateral margins being somewhat concave in the middle; the upper margin is truncated, while the lower one forms a broad, blunt angle. The foramina number two and are distinct, entire and heart-shaped, the upper one being strikingly larger than the lower one. The depressions also number two, but are very inconspicuous (Pl. I, fig. 41). Those of *A. iustus*, *A. asterictus* and *A. miyadai*, which are elongate and from about two and a half to more than three times as long as broad, are typically wedge-shaped, gradually tapering downwards. In *A. iustus* the foramina, which occupy the upper three-fourths of plate, are three in number; the upper two are very distinct, quadrangular, slightly diverging upwards and more or less notched in the middle of upper margin, while the lower one is very small, roughly quadrangular and divided into two halves, one on either side of a narrow vertical bar. The depressions number two, are small, rounded, and situated on the remain-