

rather distinct and more or less compressed except the lower two, which are small, rounded and lie horizontally, as often seen in other members of this family (Pl. 1, fig. 28).

The oral plates of *Ophiologimus hexactis* and *Ophiophrura liodisca* are somewhat oblong in lateral view, much longer than high and not so notably divergent proximad. The abradial muscular areas are rather small, obliquely elliptical, with a concave surface, and lying on the distal portion of the abradial flank. The adradial areas are small, somewhat crescentic and situated just beneath the adradial articular area (Pl. IV, figs. 3–6). The oral plate of *Ophiolimna diastata*, presents a different form from the foregoing, and bears a close resemblance to that of *Ophiomyxa australis* of the Ophiomyxinae. It is axe-shaped, slightly divergent proximad, and somewhat longer than high. The abradial muscular area is of moderate size, ear-shaped in outline, and is in contact with the distal border of abradial flank, but does not form a distal wing. The adradial area is small, crescentic, and lies just beneath the adradial articular area (Pl. IV, figs. 7–8). The corresponding plate of *Ophiomitrella ikedai*, which presents yet another form from the foregoing, is roughly squarish in shape, the notch for the ring nerve being very conspicuous in the middle of the dorsal margin. The abradial muscular area is of moderate size, higher than broad and somewhat quadrilateral, with proximal angles broadly rounded. The adradial one is also of moderate size, elongate and low down on the plate, the lower portion of which curves distally like the letter L (Pl. IV, figs. 9–10). On the other hand, the oral plate of *O. sterifera* is elongate, axe-shaped, and abruptly enlarged proximally. The abradial muscular area is small, transversely oval, and placed low down on the distal portion of the plate. The adradial area is larger, crescentic and situated beneath the adradial articular area (Pl. IV, figs. 11–12). Those of *Ophiophthalmus cataleimoidus*, *O. normani*, and *Ophiothamnus venustus* belong to the same category as that of *O. diastata*, but are a little more elongate than the latter. The abradial muscular areas are rather small and elliptical in shape. The adradial areas are small, more or less arc-shaped and lying obliquely beneath the adradial articular area (Pl. IV, figs. 13–16 and 27–28). That of *Ophiocamax rugosa* recalls that of *O. ikedai*, especially in outline, and in the abradial and adradial muscular areas; but it is more elongate than the latter (Pl. IV, figs. 29–30). The oral plate of the genus *Ophiacantha* shows a wide range of variation, including all the forms mentioned above. That of *O. mitsuui* belongs to the oblong type, like those of *O. hexactis* and *O. liodisca*, but the abradial muscular area is rather large and rounded (Pl. IV, figs. 23–24). The oral plate in *O. acanthinotata* and *O. bisquamata* presents the squarish type, like those of *O. ikedai* and *O. rugosa*, but in *O. bisquamata* the abradial muscular area is somewhat ear-shaped and much higher than broad (Pl. IV, figs. 17–20). Finally, that of *O. pentagona* is representative of the axe-shaped type, as in *O. diastata*, but it is more distinctly tapered than that of the latter. That of *O. rachophora* is of the same type as the foregoing, but the distal half is abruptly reduced in size. The abradial muscular areas of these two species are transversely elliptical. The adradial areas are small and lie beneath the adradial articular area, the inner part of which is tapered and protrudes upwards (Pl. IV, figs. 25–26). The oral plate of *Ophiotreta rugosa*, which is in close agreement with that of *O. diastata*, is axe-shaped in outline, and is provided with ear-shaped abradial and arc-shaped adradial muscular areas (Pl. IV, figs. 21–22).

Dental and Oral Plates of Hemieuryalidae

Specimens of the family Hemieuryalidae are rare and difficult to obtain, though fortunately *Ophiomoeris pentagona*, a member of the Ophiochondrinae,