

whilst the dorsal stern-chasers or the solitary dorsal stern-chaser, which are invariably directed backwards, probably serve for purposes of defence, inasmuch as a strong ray of light shot forth from the stern-chaser may dazzle and frighten an enemy which is in hot pursuit of a *Scopelus*.

e. Development.

According to Emery¹ these organs are enclosed between two scales, one forming the light-reflecting layer of spicules below the cup-shaped portion, and the other a lens on the surface above it.

All these organs examined by me are destitute of a lens, and only covered by a very thin epithelium.

As these organs, with the exception of the dorsal stern-chasers, are always found in two more or less continuous lateral rows, they seem to be in some way connected with the slime-canal system.

It may be supposed that the stern-chasers have been developed in the skin independently of the lateral slime-canal.

The development of the complex organs with coalesced proximal portions from isolated ones, has been referred to above.

5. Regular ocellar projecting organs.

a. Distribution.

These organs have been only found in *Xenodermichthys nodulosus*.

They differ in a remarkable manner from all other forms, and no organs similar to these have been previously described.

They are found segmentally placed in rows on the sides of this fish.

b. Structure.

These organs appear as oval bodies, attached to the fish only by a small portion of their base, and they project freely beyond the surface, differing in this respect from all other analogous organs. Each organ is oval, about two and a half times as long as high, slightly flattened, and broader than high. One end is slightly wider and covered by a thick layer of pigment. This is directed dorsad, and is accordingly under ordinary circumstances turned upwards, while the other end is slightly narrower and looks downwards, being situated ventrally. This end is only covered by a thin transparent epithelium. The organ is about 2 mm. long and 1 mm. wide; it is attached (Pl. LXXIII. fig. 50) to the surface of the fish by a peduncle near its upper end, and apparently pendent from the base of attachment.

¹ C. Emery, *Mittheil. aus d. zool. Station zu Neapel*, Bd. v.