

The following table shows how these various kinds of phosphorescent organs are distributed in the species examined by me :—

| Phosphorescent Organs. | | | | <i>Opostomias micripnus.</i> | <i>Echiostoma barbatum.</i> | <i>Pachystomias microdon.</i> | <i>Malacosteus indicus.</i> | <i>Astronothus niger.</i> | <i>Argyropelecus hemigrammus.</i> | <i>Sternopyx diaphana.</i> | <i>Scopelus benoiti.</i> | <i>Halosaurus macrochir.</i> | <i>Halosaurus rostratus.</i> | <i>Xenodermichthys nodulosus.</i> | |
|------------------------|------------------------------------|------------------|------------------------------|------------------------------|-----------------------------|-------------------------------|-----------------------------|---------------------------|-----------------------------------|----------------------------|--------------------------|------------------------------|------------------------------|-----------------------------------|---|
| Regular ocellar. | On scales of lateral line, simple, | without pigment, | | | | | | | | | | x | x | | |
| | | | Sunk, | simple, | without pigment, | x | | | | | | | | | |
| | with pigment, | x | | | x | x | x | x | | | | | | | |
| | Sunk, | composite, | without reflector, vertical, | x | x | x | | x | | | | | | | |
| | | | | with reflector, oblique, | | | | | | | x | x | x | | |
| | Projecting, | simple, | with pigment, | | | | | | | | | | | | x |
| | | | | Irregular glandular. | Scattered, | irregularly, | | | | x | | | | | |
| | on lower jaw, | | | | | | | | | x | x | | | | |
| | On barbels, | | | x | | | x | | | | | | | | |
| | | | | Under gill-cover, | | | | | | | | | | x | |
| Suborbital, | without reflector, | | x | | | | | | | x | | | | | |
| | | | with reflector, | | x | x | x | | | | x | | | | |

III. SPECIAL DESCRIPTION OF THE DIFFERENT KINDS OF PHOSPHORESCENT ORGANS.

A. REGULAR OCELLAR ORGANS.

1. Simple ocellar organs without pigment coat, sunk in the body.

a. Distribution.

These organs have hitherto only been found in one species, *Opostomias micripnus*; and have not been observed by previous authors. In *Opostomias micripnus* they appear as very small white spots scattered very abundantly on the sides and back of the otherwise dark-coloured fish, and when magnified present the appearance of circular patches from 0.1 to 0.3 mm. in diameter. They are not uniformly scattered over the back of the fish, but appear in groups of from fifty to one hundred, and these groups