

substance; and it appears that there is a large patch of similar substance in the gill-cavity on and in front of the clavicle.

The entire specimen is black, the vertical fins of a somewhat lighter colour; the upper central rays of the caudal black. Ventrals whitish, the hind part of the three inner rays black.

Mr. Murray¹ observes:—"The end of the barbel, which was thickened, was flesh colour with a rose tint, there was also a rose tint on the dorsal and anal fins. The rest of the animal was of a dark colour with a perceptible slate-coloured tint. The phosphorescent spots along the belly and lateral line were red, as was also that below the eye."

Pachystomias, n. gen.

This genus differs from *Echiostoma* by the absence of a separate pectoral ray; also by a much less developed dentition, vomerine and maxillary teeth being absent.

Pachystomias microdon (Pl. LIII. fig. C).

Echiostoma microdon, Günth., Ann. and Mag. Nat. Hist., 1878, vol. ii. p. 180.

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The length of the head is more than one-fifth of the total (with the caudal). No separate pectoral ray; root of the ventral considerably nearer to the base of the caudal than to the extremity of the snout. All the teeth rather small, a few only in the middle of the palatine bone. Black; two luminous organs below the eye, a narrow elongate one above the maxillary, and a small short one nearer to the eye.

Habitat.—North-West of Australia, Station 181; depth, 2440 fathoms. One specimen, 9 inches long.

This fish is a much shorter and heavier fish than *Echiostoma barbatum*, somewhat approaching *Malacosteus* in its physiognomy. The head and body are compressed; the greatest depth, immediately behind the head, is one-fifth of the total length, the length of the head two-ninths. The head is enveloped in rather thick skin, like the body, well hiding the underlying parts. Upper part of the head rather short, cleft of the mouth exceedingly wide, extending backwards nearly to the margin of the gill-opening; the præopercular edge is therefore very oblique. Interorbital space convex, but with a depression along the middle caused by two longitudinal ridges; its width equals the diameter of the eye, which is as long as the snout, and one-fourth of that of the head. Nostrils close together, round, lateral, in front of the eye. Snout rounded,

¹ Narr. Chall. Exp., vol. i. p. 412.