the same region.¹ One arm bears a supernumerary sucker in the largest specimen (Pl. III. fig. 2).

Octopus tonganus, Hoyle (Pl. VIII. figs. 1, 2).

1885. Octopus tonganus, Hoyle, Diagnoses I., p. 225. 1885. " Hoyle, Prelim. Rep. I., p. 100.

Habitat.—The Reefs, Tongatabu. Three mutilated specimens, one ♂, two ♀.

The Body is rounded, depressed, and broader than long, with a marked but shallow median groove on the ventral surface. The mantle-opening extends about one-third round the circumference of the body, terminating nearer to the funnel than to the eye. The siphon is short and conical, and extends rather more than halfway to the umbrellamargin.

The Head is small and the eyes prominent.

The Arms are unequal, the order being 3, 2, 4, 1; on an average they are nearly ten times as long as the body, and taper gradually to very fine points. The umbrella is very small, and slightly narrower dorsally than laterally. The suckers are for the most part small and closely packed; the first four are arranged in a single row; eight small suckers surround the mouth, but there is no distinct lip. In the male there are four large ones on each lateral arm opposite the margin of the umbrella, beyond which they gradually diminish. The extremity of the hectocotylised arm is very minute (fig. 2).

The Surface is in general smooth; the back bears a few small papillæ, but owing to the compression of the specimens it is impossible to make out their exact number. There are three minute cirri over each eye.

The Colour is on the whole grey, paler below; this is due to dark specks sprinkled more or less closely over a cream-coloured ground. One specimen has a purplish patch at either side of the mantle-opening.

				Dim	ens	ions	s. ²									
Length, total, .		•											285	1	mm.	
End of body to	mantl	e-marg	in,										30		,,	
													32			
Length of extrem	nity o	f hecto	cotyli	sed ar	n,								2		"	
Breadth of extremity of hectocotylised arm,													0.7	5	,,	
													5		,,	
Diameter of largest sucker on dorsal arm,								•					3		,,	
											5	Right.			Left.	
of first arm,												150 mm.			153 mm.	
of second arm,	•											240	,,		203	"
The control of the co	•								•			180	"		235	"
of fourth arm,	•	٠,	,	•			•		•		•	210	"		213	,,
	End of body to a End of body to a Length of extree Breadth of extree Diameter of larg Diameter of larg of first arm,	End of body to mantle End of body to eye, Length of extremity of Breadth of extremity of Diameter of largest su Diameter of largest su of first arm, of second arm,	End of body to mantle-marge. End of body to eye, Length of extremity of hector Breadth of extremity of hector Diameter of largest sucker of Diameter of largest sucker of of first arm, of second arm, of third arm,	End of body to mantle-margin, End of body to eye, Length of extremity of hectocotyli Breadth of extremity of hectocotyl Diameter of largest sucker on later Diameter of largest sucker on dors of first arm, of second arm,	Length, total, . End of body to mantle-margin, End of body to eye, Length of extremity of hectocotylised are Breadth of extremity of hectocotylised are Diameter of largest sucker on lateral arm Diameter of largest sucker on dorsal arm of first arm, of second arm,	Length, total, . End of body to mantle-margin, End of body to eye, . Length of extremity of hectocotylised arm, Breadth of extremity of hectocotylised arm, Diameter of largest sucker on lateral arm, Diameter of largest sucker on dorsal arm, of first arm,	Length, total, . End of body to mantle-margin, End of body to eye, . Length of extremity of hectocotylised arm, Breadth of extremity of hectocotylised arm, Diameter of largest sucker on lateral arm, Diameter of largest sucker on dorsal arm, of first arm, of second arm, . of third arm,	End of body to mantle-margin, End of body to eye, Length of extremity of hectocotylised arm, Breadth of extremity of hectocotylised arm, Diameter of largest sucker on lateral arm, Diameter of largest sucker on dorsal arm, of first arm, of second arm,	Length, total, End of body to mantle-margin, End of body to eye, Length of extremity of hectocotylised arm, Breadth of extremity of hectocotylised arm, Diameter of largest sucker on lateral arm, Diameter of largest sucker on dorsal arm, of first arm, of second arm, of third arm,	Length, total, . End of body to mantle-margin, End of body to eye, . Length of extremity of hectocotylised arm, Breadth of extremity of hectocotylised arm, Diameter of largest sucker on lateral arm, Diameter of largest sucker on dorsal arm, of first arm, of second arm, . of third arm, .	Length, total, End of body to mantle-margin, End of body to eye, Length of extremity of hectocotylised arm, Breadth of extremity of hectocotylised arm, Diameter of largest sucker on lateral arm, Diameter of largest sucker on dorsal arm, of first arm, of second arm, of third arm,	Length, total, End of body to mantle-margin, End of body to eye, Length of extremity of hectocotylised arm, Breadth of extremity of hectocotylised arm, Diameter of largest sucker on lateral arm, Diameter of largest sucker on dorsal arm, of first arm, of second arm,	Length, total, End of body to mantle-margin, End of body to eye, Length of extremity of hectocotylised arm, Breadth of extremity of hectocotylised arm, Diameter of largest sucker on lateral arm, Diameter of largest sucker on dorsal arm, Rig of first arm, of second arm, of third arm, 180	Length, total,	Length, total,	Length, total,

¹ Moll., Wilkes Exped., 474.

² Taken from the male specimen.