

The basephysis is short, the extremity of the flagellum reaching to half the length of the meros. The mastigobranchia is broad, bifid, and supports a slender full-plumed podobranchia.

The branchiæ generally consist of large and well-developed plumes, arranged as in the annexed table :—

Pleurobranchiæ,	.	.	.	...	...	...	1	1	1	1
Arthrobranchiæ,	.	.	.	...	2	2	2	2	2	...
Podobranchiæ,	.	.	.	1	1	1	1	1	1	...
Mastigobranchiæ,	.	.	.	1	1	1	1	1	1	...
				h	i	k	l	m	n	o

The mastigobranchiæ have a peculiar notch or bend in the outer or posterior margin; in that of the second gnathopoda it is increased to a deep cleft. This curve or excavation may be only a specific feature, but inasmuch as it does not exist in *Palinurus vulgaris*, it may be of generic value, a point that can only be determined when other species are examined.

*Habitat.*—Station 135c, October 17, 1873; lat. 37° 25' 30" S., long. 12° 28' 30" W.; off Nightingale Island, Tristan da Cunha; depth, 100 to 150 fathoms; bottom, hard ground, shells, gravel. One specimen.

Length 248 mm. (10 in.).

This species has been described under the name of *Palinurus lalandii* by Professor Milne-Edwards, from a specimen of Lamarck's preserved in the museum, but, as far as I am aware, it has never been figured.

Two small specimens of what I believe to be the young of this species were taken from the screw of the Challenger the day after she left the Cape of Good Hope. The armature and ornamentation correspond with those of the adult. The specimen is about 25 mm. in length, and appears to be perfectly formed in all except its sexual characters. No foramen or opening could be detected on the coxa of either the third or fifth pair of pereopoda, whereas in the adult it is very conspicuous, more especially in the male, where it is elevated on a prominent tubercle implanted close to the pleural articulation.

This small animal is one of considerable interest, inasmuch as it shows that *Palinurus* arrives at its complete external form when it has only grown to an inch in length, having by that time undergone all its morphological changes. The brephalos having quitted the ovum in a Megalopa stage, in the form known as *Phyllosoma*, about 1.5 mm. or 2 mm., in length, assumes the outward shape of its parent by the time it has reached the length of one inch.

Yet, while I write, I have before me a *Phyllosoma* nearly an inch long, in which all the characters of the brephalos as it quits the ovum of *Palinurus* are present, excepting the addition of new limbs. The question must therefore arise, whether our knowledge of