

Phoxichilidium mollissimum, n. sp. (Pl. XIII. figs. 6-9).

Diagnosis.—Body robust, lateral processes not very widely separated. Mandibles distinctly three-jointed, with curved, smooth, and not very long pincers. Ovipigerous legs ten-jointed, without claw (probably present in both sexes). Auxiliary claws (?). Palpi represented by small rounded protuberances. Legs with silky hairs.

Description.—

Length of the proboscis,	9.5 mm.
Total length of the body,	28 „
Length of the abdomen,	9 „
Length of the ovigerous leg,	20 „
Length of the first six joints of the leg,	110 „

Of this interesting deep-sea Pycnogonid, unfortunately only a single specimen (much injured) was collected during the voyage of H.M.S. Challenger. There is not a single complete leg; and of the incomplete ones, with their three joints, there are in all only three present. However, this form is so highly characteristic that I think it possible to give, even from this defective specimen, a description which will be recognised by future investigators.

The body is robust; like the proboscis, the lateral processes, and the first joints of the legs, it is entirely smooth. The front of the cephalothoracic segment projects over the base of the proboscis. This front part bears dorsally the blunt oculiferous tubercle, with its rudimentary eyes, and quite anteriorly the large mandibles are inserted. These run parallel to one another, and are distinctly three-jointed. The basal joint is comparatively long, swollen at its base, and again at the extremity; the second is about two-thirds the length of the basal joint; the third joint is very short, and terminates in a pair of smooth, strongly-curved pincers, which, when closed, have a wide interval between them.

The proboscis is very stout, swollen a little in the middle, and also at the extremity; seen laterally, the swelling at the extremity appears rather stronger on the dorsal than on the ventral side. The triangular mouth is quite closed by the labial plates. Near the base of the proboscis the cephalothoracic segment bears on both sides a small blunt protuberance, which represents the palpus.

The ovigerous legs are inserted ventrally. Seen from that side, the cephalothoracic segment is distinctly divided into two segments, and the ovigerous legs originate from the first of these two segments. They are inserted on small processes, which represent the lateral processes of the ovigerous legs, and have ten joints. The first and third joints are short; the second is about twice as long; the fourth is comparatively stout and longer than the second; the fifth is as long as the second, and much more slender than the fourth; the sixth is shorter than the fifth, slender, but swollen at the extremity. The last four joints do not show any great differences in length; however, from the