*Pista fasciata*, according to Marenzeller,<sup>1</sup> shows a smoothly rounded margin, whereas the example procured by the Challenger has a process similar to that shown in the hook of the same author's *Pista maculata*. Unfortunately, Grube in many cases did not figure the hooks of his species, and even when they were represented the artist failed to appreciate their exact characters.

## Pista abyssicola, n. sp. (Pl. XXVIIA. fig. 33; Pl. XXXVIIIA. fig. 1).

Habitat.—Trawled at Station 157 (midway between the Antarctic region and Australia), March 3, 1874; lat. 53° 55' S., long. 108° 31' E.; depth, 1950 fathoms; bottom temperature 32°.1, surface temperature 37°.2; sea-bottom, Diatom ooze.

An injured fragment of the anterior region of a somewhat large species, measuring 48 mm. in length, and having a diameter of 4 mm. at its widest part in front.

So far as can be noticed from the example, the general structure of the exterior of the body agrees with that in *Pista cristata*. Only a single branchial process is attached, and this presents a longer, but also transversely barred pedicle, and a more elongated and more lax series of whorls than in the form just mentioned. Comparatively little reliance can, however, be placed on the appearances of these variable parts.

A comparison of the bristles with those of *Pista cristata* from Shetland shows that though the species procured by the Challenger is considerably larger, the bristles are more slender and their tips more tapered, while the winged region at the extremity of each is somewhat longer. It is a feature of interest in these tufts that the developing bristles, the tips of which just project beyond the setigerous region, show the distinctive characters in a marked manner. The extremities of the bristles of this form are not so attenuate as in *Eupista darwini*.

In comparing the hooks (Pl. XXVIIA. fig. 33) with those of *Pista cristata* it is found that both are boldly striated from the crown above the great fang downward, the striæ, perhaps, being most pronounced in the abyssal form. In the latter the posterior (dorsal) line, further, presents a much bolder projection inferiorly, a feature very evident on contrasting the anterior and posterior outlines in each case. The gulf beneath the great fang in the new form is smaller than in *Pista cristata*, and the distance from the inner end to the mucro or intermediate spine is much shorter. The lower part of the uncinus, again, is more massive. It is not always easy to make out the precise outline of the hook inferiorly, since the thinner layer to which the long posterior process is attached seems to alter under pressure, and therefore is variable in its relation in regard to the harder base of the hook, which is indicated by the inner line in the figure.

The intestine contains a somewhat firm whitish mass, consisting of numerous Diatoms,

<sup>1</sup> Südjapan. Annel., op. cit., p. 202, Tab. i. fig. 4.