

from before backward. The general outline of these scales is somewhat triangular, with a deep groove bordered by an elevation at each side on the anterior border. Almost the entire margin is surrounded by cilia. In the arrangement of the sandy, and other grains on the dorsum of each, it is observed that a somewhat regular gradation occurs from before backward, the finer particles occurring anteriorly and the coarse posteriorly. They are also less affected by the ferruginous hue than the succeeding. The other scales generally are coated externally by a ferruginous deposit, over which the sand-grains are attached. The anterior margin alone is free from the latter, and is also smooth; while the rest of the margin is surrounded by a dense series of cilia, which are longest on the inferior border, where they likewise show a tufted arrangement on slight elevations, the intermediate spaces having short papillæ (Pl. XXIV. fig. 6), as Grube indicates in *Psammolyce umbonifera*.<sup>1</sup> The surface of the scale appears to be covered with distinct papillæ, almost all, however, being shrouded in sand-grains and ochreous mud. The scales are proportionally larger than in the previous form, and they readily fall off.

Each foot has a well-marked branchial process superiorly, and long slender cilia (papillæ) along the external and inferior borders. These processes are longer than in *Psammolyce sombreriana*. The ventral cirrus extends beyond the base of the bristles. The superior division of the foot bears a dense tuft of curved serrated bristles, generally coated inferiorly with the ochreous deposit; and internal to their base is a well-marked lamellar collar.

The ventral lobe has a series of brownish bristles with an elongated, bifid, terminal process articulated distally in the usual manner (Pl. XIII A. fig. 18, an intermediate form). On the whole, the terminal appendages are longer than in the last species.

The leading differences, therefore, between this form and *Psammolyce sombreriana* are—the more prominent head, the presence and position of the eyes, the large size and structure of the basal segment of the tentacles, the more evidently spinous condition of the dorsal bristles, the greater comparative length and the structure of the tips of the ventral bristles, the more elongated papillæ on the feet, the ferruginous deposit, and the substitution of sand-grains for Foraminifera on the scales.

The differences just noted in external characters are fully borne out by an examination of the structure of the body-wall. The surface shows a dense extraneous deposit, which often envelops the papillæ in a continuous mass, and the cuticle ventrally is proportionally thicker. The nerve-area, while following the same type, is deeper and narrower, and the ventral longitudinal muscles show only a gentle curvature. The dorsal longitudinal muscles are also proportionally thicker inferiorly. In ordinary sections there is a deep median furrow between the cords superiorly, a feature intensified by the parting of the oblique and vertical muscles in the same region.

<sup>1</sup> Annelidenausbeute von S.M.S. "Gazelle," *op. cit.*, p. 521.