

*P H I L O S O P H I C A L*  
T R A N S A C T I O N S:

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## Annelida

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## ANNELIDA.—By Professor Ed. Grube.

The Annelids obtained are few in number and belong to two species :—

*Perichaeta, Schmid.**Perichaeta rodericensis.*

Longius vermiformis, anteriora versus citius magisque attenuata, teres, ex carneo flavescens, læte iricolor, paulo pellucida, *segmentis* fere 110, *ante* 17<sup>mum</sup> *sitis* majoribus, pæne 2-plo latioribus, *posterioribus* 3-plo fere latioribus quam longis. *Lobus capitalis*, quoad observare licuit, semiovalis, latior quam longus, linea pæne recta a segmento buccali sepositus. *Segmentum buccale* illo ut proximo longius. *Segmentum* 14<sup>mum</sup> et 15<sup>mum</sup> (clitellæ) sordide crocea, satis libera ut buccale, nec vero tumida. *Setae* apice quasi curvatæ, segmentorum ante clitellas sitorum paulo majores, 32-nae ad 36-nas, annulis leviter elatis collocatæ, posteriorum minores, sæpe ægre distinguendæ, ad 60-nas, postremorum 40-nae.

*Segmentum* 17<sup>mum</sup> subtus pone cingulum setarum utrinque eminentia planiore orbiculari munitum, centro distinctius circumscripto. Aperturæ genitales anteriores haud observatæ.

Longitudo fere 100 mm., partis ante clitellas sitæ 21 mm., clitellarum 2 mm., latitudo maxima (proxime ante clitellas) 4, 5 mm., partis postremæ 3 mm.

Rather common in damp earth and moss.—(*Gulliver*).

Several examples were received, the longest of which measured 110 mm., and the shortest 45 mm.; they were in all cases particularly soft, but, as in but a few cases the integument had peeled off to a very small extent, this did not appear to be due to the mode of their preservation, but to the thinness of the muscular layer. The wall of the body is so transparent that it was possible to see the viscera and large vascular trunks quite distinctly; thus, in the 9th and 10th segments the stomach may be seen shining through the wall of the body; in the 11th and 12th the two pairs of organs to which Léon Vaillant\* has given the name of testes (l. c. Fig. 4 *h h'*) and in the 16th to the 19th inclusive, as also in the 20th segment, his “Glandes “accessoires du Canal déférent.” Dissection revealed the presence in the 18th segment, of a minute C-shaped cæcum; but it was in one example only that I noted the distinct presence of the above-mentioned circular protuberances with their sharply projecting centra (in which I was in no case able to find an orifice). There are no longitudinal costulæ on the most anterior segments; the whole animal is rounded, the hinder end not being either flattened out or

\* Léon Vaillant.—Note sur l'Anatomie de deux Espèces du Genre *Perichaeta*.—Montpellier, 1869.

dilated, but also well rounded, and gradually tapering off to the extremity of the body. It was impossible to detect the presence of any genital orifices. The cephalic lobe was very indistinct, as the pharynx was partially exerted, but I believe I discerned an almost perfectly straight line of boundary between it and the buccal segment.

The animal under description would seem therefore to belong to the genus *Nitocris*, Kbg.,\* inasmuch as the setae on the post-clitellar segments are distinct, and, as a rule, much more numerous than those on the anterior segments; it is true that Kinberg in his diagnosis, says "cingulum nullum"; perhaps, because he regards the presence of a swelling as an essential character of the cingulum (clitellæ); such a swelling is absent also in our *Perichaeta*, but I am, nevertheless, of opinion that the two segments which are so markedly distinguished by their colour, and by the absence of setæ must be regarded as forming a cingulum. As however there is some doubt as to the presence of this organ, I think it best to describe this worm from Rodriguez under the more general name of *Perichaeta* (as defined by Schmarda).

Only one species of *Nitocris* is known, *N. gracilis*, Kbg., from Rio de Janeiro; this has as many as 91 segments, and is from 42–66 mm. long; there is a cephalic lobe which is said to be nearly as long as the buccal segment. In our species it is, I think, shorter; Kinberg does not state the number of setæ on the anterior or posterior segments, or any other distinctive characters; but, in any case, it would be against all experience, if the two forms were identical.

#### Amphinome, Brug.

##### *A. (Eurythoë) pacifica*, Kb.

When I was determining the examples of this species I was undecided whether they should be referred to *E. pacifica*, or *E. capensis*, Kbg.; as in both of these species, there are four buccal segments, and the caruncle does not extend to the fifth segment. In *E. capensis*, however, it is said to extend beyond the line which separates the third from the fourth segment, and not to be lobate; in our specimen, the caruncle does not extend so far, and its basal portion is lobed. I did not observe any distinctly finer setæ in the ventral fascicle, where the number of bristles was about 25; the setæ of the superior fascicles are either linear, having their points long and somewhat distinct, or they are much stronger and provided with about 11 denticles at their points, otherwise they are smooth; all white, but those in the ventral bundles are of a more yellowish colour. The dorsal cirrus, which Kinberg states to be shorter than the superior setæ, I find to be of the same, or even of a somewhat greater length. The branchiæ are most intensely coloured, nearly ferrugineous, which I have not observed in any other examples of *A. pacifica*; the filaments are grouped rather in the form of the fan, than in several rows, and, as a

\* Kinberg, *Annulata nova*. Öfvers. Kongl. Vetensk. Akad. Förhandl., 1866, p. 102.

rule, are divided into four branches; the first gill had only four, but the second as many as 15 filaments; the fourth and fifth reach those opposite to them, but this is not the case with the succeeding ones.

The anus is dorsal in position and occupies the three last segments. In one example, in which there are 73 segments, the length is 71 mm., the greatest breadth of the median segments, which are about  $4\frac{1}{2}$  or 5 times as broad as long, is on the ventral surface 9 mm., or, adding the pharetrae, 10, or the setæ 13 mm. Kinberg's figure\* (l. c. Taf. XII., Fig. 11) represents the animal as much more slender, but in his description no weight is laid on the proportions of the segments, and it is possible that the figure was taken from a living specimen.

The caruncle is 1.4 mm. long; its basal portion has six descending grooves; the upper portion is swollen and undivided; the azygos tentacle is 0.5 mm. long, and somewhat shorter and thinner than the others.

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\* Eugenies Resa. Annulata.