

## EXPLANATION OF PLATE XIII.

<i>bf</i> , internal chamber.	<i>pz</i> , parasitic cells.
<i>Dr</i> , glands.	<i>Qm</i> , transverse muscles.
<i>e. m.</i> , entodermal muscles.	<i>s</i> , developed septa.
<i>em. z.</i> , embryonal cells.	<i>s'</i> , young septa.
<i>Lm</i> , longitudinal muscles.	<i>sf</i> , fibrils of the sense-cells.
<i>Mg</i> , stomach.	<i>st. l.</i> , supporting lamella.
<i>Mk</i> , buccal cone.	<i>st. z.</i> , supporting cells.
<i>M.o.</i> , mouth-opening.	<i>st'. z'</i> , cells of the supporting lamella.
<i>M' o'</i> , inner mouth-opening.	<i>sz</i> , sense-cells.
<i>Mw</i> , gastral pads.	<i>t. F'</i> , transverse bands.
<i>N</i> , nematocysts.	<i>z. f.</i> , intermediate chamber.
<i>Nv</i> , nervous layer.	

*Fig. 1.* *Polyparium ambulans* enlarged  $2\frac{1}{2}$  times; the upper surface covered with buccal cones, the lower with acetabula:

*Fig. 2.* A longitudinal section of *Polyparium*, showing buccal cones above and acetabula below; small and large septa. Transverse bands (*t. F*) strongly developed.

*Fig. 3.* A septal stoma.

*Fig. 4.* Section of the wall of a buccal cone, in which all the layers characteristic of an Actinia (muscles, nerves, fibrillar nematocyst layer, &c.) occur.

*Fig. 5.* Section of the buccal disk which stretches between the buccal cones. The layers follow the same order as in the last figure.

*Fig. 6.* Section of the pedal disk near an acetabulum.

*Fig. 7.* Teased-out preparation from the buccal disk, in which are to be distinguished nematocysts, sense-cells, nerve- and muscular layers. To be noted the relations which exist between the muscles (*m*) and the fibrillæ emanating from the nematocysts.

*Fig. 8.* Teased-out preparation from the pedal disk, in which gland- and sense-cells are to be distinguished.

*Fig. 9.* Entoderm filled with parasitic cells.

## XXII.—Description of a new Genus and Species of Polyzonidæ. By R. INNES POCKOCK.

[Plate XIV.]

### PSEUDODESMUS, genus novum.

*Platydesmo* (Lucas) propinquum. Corpore longo, supra tuberculorum, infra carinarum serie quoque latere prædito. Segmentorum numero majore quam septuaginta; segmento ultimo postice haud acuto; segmentis, primo et ultimo exceptis, carinas prope ad libellam emergentes parte lateris inferiore gerentibus et dorsum medium canaliculatis. Carina quaque, tribus anticis exceptis, in margine laterali foramen repugnatorium



gerente. Segmentis quatuor anticis binis pedibus, cæteris binis pedum paribus instructis; ultimo (et penultimo?) pedibus carente. Pedibus articulis sex constantibus; ultimo pedis articulo apicem ungue armato. Laminis pedigeris liberis. Capite sub segmentis anticis flexo, fronte convexa; margine antico vix in rostrum producto. Oculis nullis. Antennis articulis septem constantibus; in capitis lateribus positis; articulo extremo minimo. Mandibulis occultis. Gnathochilario manifesto; stipitibus magnis; malis et cardinibus haud conspicuis; lobis linguæ parvæ et tenuis nullis; mento malleo simili et magno.

Owing to scarcity of material I have been unable satisfactorily to determine whether the mandibles be in reality absent or not. The fact of their occurrence in *Siphonophora* and *Platydesmus* leads me to believe that owing to my imperfect examination of the mouth-parts their presence has been overlooked in this specimen.

This genus differs from *Platydesmus* principally in the absence of eyes and in the possession of a greater number of segments. With *Dolistenus* (Fanz.) I am unable to compare it, owing to my ignorance of the structure of the mouth-parts in this form (*cf. infra*, Note).

*Pseudodesmus verrucosus*, n. sp.

Number of segments in one specimen seventy-six, in another seventy-two. Length of longer individual 34 millim., width  $4\frac{1}{2}$  millim.

Head somewhat pointed in front, rounded behind, convex from before backwards, and from side to side; thickly and finely punctured, and thickly clothed with short hairs. All the segments, the limbs, and antennæ punctured and more or less thickly covered with hairs; the free ends of the keels, the large tubercles, and the anal valves not punctured and not hairy. The first segment bearing an irregular row of tubercles on its anterior half, and provided on each side with a larger lateral tubercle, corresponding in position with the keels of the succeeding segments. That portion of each segment which lies between the keel below and the large dorsal tubercle above bearing one or more smaller tubercles, which are more numerous upon the first three segments than upon the others. Posterior border of last segment rounded and tubercular. Anal valves convex and smooth; posterior border of subanal plate straight; keels of the last segment but one projecting directly backwards. In one specimen the last, and in the other the last two segments are without limbs.

Colour mostly testaceous or yellowish brown; legs and



keels testaceous, lateral portions of the segments darker but mottled, the darker shades occurring in patches. Most of the large dorsal tubercles almost black, some bright yellow, a few dull-coloured; the yellow tubercles in patches of two, three, or four together, but not occurring at definite intervals.

Two female specimens from Perak in the Malay Peninsula.

In 1872 M. de Saussure, basing his classification upon the form of the head and jaws, divided the family Polyzonidæ into two tribes—the *Platydesmia*, to contain *Platydesmus*, and the *Polyzonina*, to contain *Polyzonium* and *Siphonophora*; and Dr. Latzel in 1884 also divided the Polyzonidæ into two subfamilies, for one of which he adopted the term *Platydesmia*, while to the other he gave the name *Dolistenia*. But the latter author, considering the number of body-segments to be a character of systematic value, included in the *Platydesmia* all those suctorial Myriopods which possess fewer than seventy segments, while the *Dolistenia* contained all those forms in which the body is composed of more than seventy segments. This arrangement brought about the association of *Polyzonium* with *Platydesmus* and the separation of *Polyzonium* from *Siphonophora*, and if adopted in the present case would lead me to assign to *Pseudodesmus* a place, not with *Platydesmus*, but with *Siphonophora*, thus showing that, in my opinion, the relationship between *Siphonophora* and *Pseudodesmus* is greater than the relationship between the latter and *Platydesmus*. But that is not the case; the form of the gnathochilarium shows that *Platydesmus* and *Pseudodesmus* are closely allied, and the form of the proboscis shows that *Polyzonium* and *Siphonophora* are closely allied. These two things, and the knowledge of the fact that the number of segments, being very variable, is a character practically valueless for classification, have led me to reject the divisions of Dr. Latzel and to adopt, at all events provisionally, the older ones of M. de Saussure; but at the same time it seems to be very probable that careful examination of the mouth-parts of genera that have hitherto been but poorly described will, by bringing to light intermediate forms, render impossible the attempt to divide the Polyzonidæ into groups larger than genera.

Owing to the scanty descriptions which at present exist of the following forms—*Octoglena* (Wood), *Petaserpes* (Cope), *Andrognathus* (Cope), and *Dolistenus* (Fanzago)—it is impossible to associate them with either of the subfamilies adopted; and it must be confessed that the classification of Dr. Latzel highly commends itself from the fact that in formulating it the author was able, inasmuch as the number of segments



and very little else was known in each case, to assign to the North-American genera a position in the Platydesmia and to associate *Dolistenus* with *Siphonophora* in the subfamily Dolistenia. Whether *Octoglena*, *Petaserpes*, and *Andrognathus* be really related to *Platydesmus* and to *Pseudodesmus* remains to be shown.

### Family Polyzonidæ.

#### Subfam. 1. PLATYDESMINI.

Maxillis secundi paris *Juli* gnathochilario similibus.

##### 1. PLATYDESMUS.

Capite oculis ornato; numero segmentorum minore quam septuaginta.

##### 2. PSEUDODESMUS.

Oculis nullis; numero segmentorum majore quam septuaginta.

#### Subfam. 2. POLYZONINI.

Gnathochilario in laminam antice acutam, simplicem, *Juli* gnathochilario haud similem mutato.

##### 1. POLYZONIUM.

Capite oculis ornato; numero segmentorum minore quam septuaginta.

##### 2. SIPHONOPHORA.

Oculis nullis; numero segmentorum majore quam septuaginta.

*Note.*—Since sending the above to press I have come across, in the work of Antonio Berlese upon the Acari, Myriopoda, and Pseudoscorpiones of Italy, a figure of the gnathochilarium of *Dolistenus*, which shows that, as regards the mouth-parts, this genus is more nearly allied to *Pseudodesmus* than to *Siphonophora*, and will therefore be classed in the subfamily Platydesmini.

The form of the mentum, the shape of the body-rings, and the possession of more than one hundred segments are characters sufficient to separate *Dolistenus* from *Pseudodesmus*.



## EXPLANATION OF PLATE XIV.

- Fig. 1. Lower view of the anterior portion of the body of *P. verrucosus*.  
 Fig. 2. Anterior view of a single segment of *P. verrucosus*.  
 Fig. 3. Lower view of the posterior portion of the body of *P. verrucosus*.  
 Fig. 4. Upper view of anterior segments.  
 Fig. 5. Upper view of middle segments.  
 Fig. 6. Upper view of posterior segments.  
 Fig. 7. Antenna.  
 Fig. 8. Leg.  
 Fig. 9. First pair of feet.  
 Fig. 10. The gnathochilarium.  
 Fig. 11. The gnathochilarium of *Platydesmus*, after Saussure.  
 Fig. 12. The gnathochilarium of *Dolistenus*, after Berlese.
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XXIII.—*Descriptions of new Species of Cicadidæ.*

By W. L. DISTANT.

BEING engaged in the preparation of an illustrated monograph of the Oriental Cicadidæ, including those of China and Japan, to be published by the authorities of the Calcutta Museum, I am anxious to obtain all the material possible to make the work moderately complete. I therefore venture to make an appeal to entomologists who may possess specimens from those regions to favour me with an opportunity of examining the same.

The following species will be all subsequently either fully or structurally figured.

*Pæcilopsaltria Hampsoni*, n. sp.

♀. Head luteous; front with a number of black linear markings; vertex with a transverse, narrow, black fascia between the eyes and with a central black spot containing the ocelli. Pronotum greenish ochraceous, the disk with the following black markings:—a central I-shaped spot, on each side of which are some oblique linear markings; the lateral dilated margins are black and the anterior margin is narrowly and the posterior margin broadly dull reddish ochraceous. Mesonotum greenish ochraceous, with the following black spots:—four obconical from anterior margin, of which the central two are smallest; a large, oblong, discal spot, with a small, partly rounded spot on each side of it; the basal cruciform elevation dull reddish ochraceous. Abdomen above black. Body beneath with the face black, marked with luteous transverse lines; sternum somewhat ochraceously



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