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LXIII.—On the mouth-organs of two species of Rhysodidæ

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Three specimens (one male, two females) taken under a log by Mr. G. F. Angas.

Perhaps most nearly allied to *Sp. nietanus* and *heteropygus* of de Saussure; but in these two species the anal valves are not compressed.

EXPLANATION OF PLATE XVI.

- a.* *Otostigma cornocephalinum*, anterior extremity from above.
- a*¹. Ditto, ditto, from below.
- a*². Ditto, posterior extremity from below.
- b.* *Scolopocryptops Meinerti*, from above (nat. size).
- b*¹. Ditto, head from below.
- c.* *Geophilus tenuitarsis*, anterior extremity from above.
- c*¹. Ditto, ditto, from below.
- c*². Ditto, posterior extremity from below.
- c*³. Ditto, posterior leg from the side.
- d.* *Strongylosoma semirugosum*, 12th somite from above.
- d*¹. Ditto, anal somite from the side.
- d*². Ditto, copulatory foot.
- e.* *Spirostreptus dominicanus*, anterior extremity.
- e*¹. Ditto, posterior extremity.
- f.* *Spirobolus dominicae*, anterior extremity.
- f*¹. Ditto, posterior extremity.
- f*². Ditto, copulatory organ from before.
- f*³. Ditto, ditto, from behind.
- f*⁴. Ditto, ditto, from the side.
- f*⁵. Ditto, ditto, central portion.
- f*⁶. Ditto, ditto, central portion (apex).

LXIII.—On the Mouth-organs of two Species of Rhysodidæ. By GEORGE LEWIS, F.L.S.

By the kindness of the Rev. A. Matthews, who has dissected and drawn them, I am able to give outlines of the mouth-organs of *Rhysodes niponensis*, Lewis, and *Clinidium veneficum*, Lewis, of which descriptions appeared in the July number of this Magazine. Mr. Matthews found it exceedingly difficult to make the dissections, owing to the hardness of the chitinous parts; and it is solely due to Mr. Matthews's persistent industry and a sacrifice of a good many specimens that the results now given were obtained. Mr. Matthews considers he has been completely successful with the *Clinidium*, "although the dissection of the smallest *Trichopteryx* would have been more easily accomplished, for the maxilla, labium, &c. are exceedingly fragile, while the surrounding integument is almost as hard as iron, and cannot be penetrated without more or less danger to the finer parts;" and he also says: "The organs of the mouth are, without exception, the most extraordinary I have ever seen: the labrum is very small, the epistoma, or, rather, the clypeus and the mentum, are very large and of the hardest and most impenetrable horn;

the maxillary palpi are very long, and the maxillæ, labium, and lingua exceedingly fragile and minute. The labium appears to be extensile, like that of *Stenus*, and of the most complex character, and at rest it is so completely withdrawn behind the mentum that dissection is rendered supremely difficult. The lingua is very large and broad, and so thin as to be perfectly transparent. The mandibles are equally abnormal, being enclosed in a horny envelope open on the inside."

To Mr. Matthews's drawings I have added one which represents the curious tubercles on the last abdominal segment of the female of *Clinidium veneficum*, which will be useful for comparison with the drawing of the corresponding dissection of the male which is by the side of it.

EXPLANATION OF THE FIGURES.

RHYSODES NIPONENSIS.

- 1.—*a.* Epistoma.
b. Labrum.
- 2.—*a.* Shield.
b. Mandible.
- 3.—*a.* Mentum.
b. Labium.
c. Labial palpi.
d. Lingua.
e. Paraglossal processes.
- 4.—Maxilla.
a. Inner lobe.
b. Outer lobe.
c. Palpus.

CLINIDIUM VENEFICUM.

- 5.—Apex of abdomen, ♂ & ♀.
- 6.—*a.* Mentum.
b. Labium.
c. Labial palpi.
d. Lingua.
e. Paraglossal processes.
- 8.—*f.* Clypeus.
e. Labrum.