

Section of Entomology. October 28, 1868.

Mr. E. Burgess in the chair. Eight members present.

The Secretary read the following communication which he had received from Dr. Hagen, in rectification of a paper by the latter upon *Hodotermes japonicus*.¹

I have compared the insect described by me as *Hodotermes japonicus* with the *Forficula* communicated by you. I have doubtless been in error; my type is a *Forficula*, with the last abdominal segment injured. I think it is an immature female, as it does not possess the carinated elevation on the sides of the second to the fourth abdominal segments. It is probably *Forficula (Brachylabris) maritima*, which is found all over the world, and has been described from Japan by De Haan and Dohrn.

This error is the more interesting to me from its bearing on the classification of Orthoptera. I think it proves that the wide separation of the Labidura or Dermaptera from other Orthoptera, so often insisted upon, is not founded in nature; and that the three families, *Termitina*, *Blattina* and *Forficulina*, are coördinated, and very nearly allied.

The following paper was read:—

A CENTURY OF ORTHOPTERA. DECADE I.—GRYLLIDES.
BY SAMUEL H. SCUDDER.

1. **Tridactylus major.** Pale dull yellow, with dull brownish blotches on the front of the head, on the base and tips of the tegmina, and just beyond the middle of the hind femora; intermediate tibiæ crossed by one stripe, and femora by two stripes; the wings extend a little beyond the abdomen; the fore tibia is dilated, especially toward the extremity, where it is armed with very short spines; the hind tibiæ are armed with three laminae, and protected at the tip by two flattened elongated spines, after the manner of *Rhipipteryx*; there are no other appendages to the hind tibiæ, although the sculpture of the pleura of the pronotum is like that of *Tridactylus*, and not that of *Rhipipteryx*. Length .4 in. Bengal.

2. **Trigonidium pacificum.** Dark fuliginous, mouth parts paler; large basal joint of antennæ fuliginous; second joint blackish;

¹ See these Proceedings, Vol. XI, p. 399.

third luteous; beyond growing dusky; pronotum smooth, shining, nearly destitute of hair; tegmina fully as long as the abdomen, the central field with prominent, irregular, longitudinal veins; wings none; legs dark luteous; anal cerci brownish, very long and slender; ovipositor reddish-brown, blackish along the middle, falciform, upper surface elevated slightly at the middle, apical half broader than basal half, tip produced to a sharp point. Length of body .21 in.; of hind tibiae .15 in.; of anal cerci .15 in.; of ovipositor .09 in. One ♀ from the Hawaiian Islands, given me by Mr. B. P. Mann.

3. *Hapithus quadratus*. This species differs from its more northern ally in having the prothorax scarcely broader behind than in front, and in having, in the ♀, longer tegmina, which cover the entire abdomen and do not divaricate at the tip; the hind legs also seem to be longer and stouter, and, in the ♂, the tegmina differ slightly in venation from those of *H. agitator*, and are also furnished with little brown spots along the outer border of the upper surface. In size it resembles *H. agitator*. Dr. Gundlach sent me one specimen from Cuba; another, collected on the same island by Mr. Wright, was given me by Mr. Uhler, and two others were received from Central Texas, collected by Mr. Belfrage.

4. *Eneoptera annulata*. Of a nearly uniform, sombre, dusty brown; summit of the frontal tubercle blackish; a reddish-black, narrow stripe across the face, uniting the bases of the mandibles; pronotum with a small blackish spot in the middle of both the anterior and posterior border; and a black dot on either side of the middle of the dorsum; tegmina extending beyond the body, nearly to the middle of the hind tibiae, dull luteous brown, with a small, humeral, blackish spot and many of the cross-veins, especially along the sides of the dorsal field, edged with brownish; wings reaching beyond the tegmina, almost to the tip of the hind tibiae; hind femora at the tip annulate with brown; hind tarsi paler than tibiae; ovipositor straight, black, edges of the sheath chestnut; anal cerci pale. Length of body .6 in.; of tegmina .76 in.; of hind tibiae .38 in.; of anal cerci .28 in.; of ovipositor .27 in. One ♀ from Central America, communicated by Mr. P. R. Uhler.

5. *Eneoptera unicolor*. Uniform luteous brown throughout, the hind femora with some slight reddish-brown, inconspicuous dashes; hind tibiae dusky; first joint of tarsi yellowish, armed at the tip with two large, scarcely divergent, brown spines; fore tarsi dilated; ovipositor straight, chestnut color, tipped with black and with a fine longitudinal black line along the middle of either side; anal cerci

long and slender, pale yellowish, slightly dusky toward the tip; tegmina longer than the abdomen, when at rest almost reaching the middle of the hind tibiæ; wings overreaching the tegmina and extending to the apical fourth of the hind tibiæ. Length of body .44 in.; of tegmina .48 in.; of hind tibiæ .26 in.; of anal cerci .16 in.; of ovipositor .14 in. One ♀ from Manila.

6. Eneoptera obscura. Head dark brown; prothorax black, varied, especially posteriorly, with dark brown; anterior legs fuscous; tegmina blackish, varied with obscure fuscous; ovipositor mahogany color, with a central, longitudinal, black line; the tegmina are broad, and extend beyond the body in the dried specimen; perhaps they do not surpass it when living; the wings, at rest, reach just beyond the tegmina; the ovipositor is scarcely shorter than the body, straight for twice or thrice its length, and then curved slightly downward; it is slightly enlarged and obliquely docked above at the tip; the form of the ovipositor, the shape of the fore femora, which are strongly incrassated at base, and the presence of a conspicuous but narrow prominence on the front of the head between the eyes, ought properly to separate this species from the genus in which I place it. Length of body .33 in.; of tegmina .31 in.; of ovipositor .28 in. Old Calabar, Mr. Andrew Murray.

7. Platydactylus bicolor. Whole upper surface, including upper third of eyes, upper portion of frontal prominence, tegmina and exposed portion of folded wings, very pale yellowish-brown; all other parts of the body, including all the appendages except the antennæ, dark brown; the latter are luteous near the base and dark brown toward the tip; summit of head flecked with blackish dots; dorsum of pronotum furnished with fewer blackish dots; some larger ones are found along an indented line parallel and contiguous to the hind border; a semicircular dusky spot is situated upon the hind border; a few minute black dots are scattered about upon the tegmina; lateral field of the tegmina with oblique blackish veins, the cross-veins pale; tegmina surpassing a little the tip of the abdomen; wings straight, extending far beyond the tip of the tegmina; legs throughout flecked with inconspicuous pale dots; terminal tarsal joint of each of the legs furnished with a broad central annulation of yellowish-brown; terminal hind tarsal joint guarded at base by two spines, the inner three or four times longer than the outer. Length of body, .8 in.; of tegmina, .7 in.; of wings beyond tegmina, .5 in.; of hind tibiæ, .66 in.; anal cerci broken. One ♂ from Bogota, P. R. Uhler.

8. **Mogoplistes occidentalis.** Nearly uniform chestnut-brown, slightly banded with brownish fuscous. It differs conspicuously from the European species, by its much greater size and the proportionally greater length of the ovipositor; my specimens are imperfect and are almost entirely deprived of scales. Length of the body .42 in.; of the ovipositor, .32 in. Mr. Uhler sent me two ♀ from Cape St. Lucas, Lower California.

Cycloptilum nov. gen.

Allied to *Ornebius*. Head very small, well and evenly rounded, produced anteriorly; eyes of medium size, subpyriform, the larger end directed upward, but little prominent; antennæ very long and slender, distant at their insertion, the basal joint large, the remaining joints nearly equal; labrum bifid; maxillary and labial palpi apparently similar, the terminal joints a little enlarged and obliquely truncated at the tip. Prothorax very large, nearly as long as the abdomen, greatly broadened and produced posteriorly, the posterior border well rounded, forming nearly a semicircle; pleura shallow and incurved, posteriorly wanting; tegmina almost entirely concealed by the expansion of the pronotum, but with the dorsal field as broad as the pronotum in its widest part, the tips well rounded, like the prothorax, and covering half of the abdomen; the lateral field is also well developed, embracing the abdomen; wings nearly or quite abortive in the single species known to me; legs short, simple; hind femora greatly dilated; hind tibiæ and first joint of tarsi furnished with apical spines. Abdomen depressed, nearly equally broad throughout, slightly tapering at the extremity; anal cerci tapering, more than half as long as the abdomen; whole body, in the single species known to me, covered with scales.

9. **Cycloptilum squamosum.** Head and prothorax yellowish-brown; a dark brown or blackish band behind the eyes, extending to the anterior part of the pronotum, with a scarcely perceptible median carina; pleura of the pronotum covered with whitish scales; tegmina extending three one-hundredths of an inch beyond the prothorax, pellucid, with a few pinkish veins on posterior border; legs pale yellowish, covered with brownish scales, least conspicuous on the hind femora; basal half of abdomen covered with whitish scales, apical half with blackish ones; anal cerci whitish, a few long and distant hairs on the pleura of the pronotum, the femora and the anal cerci. Length of body .25 in.; of pronotum .13 in.; of hind femora .14 in.; of antennæ .5 in.; of anal cerci .1 inch. One ♂, Texas, Belfrage.

10. *Nemobius circumcinctus*. Top of head and pronotum yellowish-brown, marked with blackish-brown, the pronotum edged anteriorly and posteriorly with pale yellow; pleura of pronotum (except lower edges) and front of head, blackish-brown; abdomen black above, pale yellowish-brown beneath; first and second joints of palpi dark brown, third joint dark brown without and whitish within, fourth and fifth joints white; antennæ dark brown; legs and anal cerci brownish-yellow, flecked with blackish spots; the tibiæ and tarsi more dusky; the portions of the tegmina, exposed when at rest, black, the dorsal field with black, the lateral field with luteous veins; entire outer and posterior margin of the dorsal surface of the folded tegmina bordered narrowly—more broadly at the shoulder—with a pale yellow band; concealed portion of tegmina translucent, colorless; tegmina broad, ovate, a little shorter than the abdomen; upper surface flat; wings apparently wanting; hind tarsi composed of only two joints, the outer smaller and not more than half as long as the first. Length of body, .37 in.; of tegmina, .23 in.; of hind tibiæ, .25 in. One ♂, from Orizaba, Mexico, received from Professor Sumichrast.

November 4, 1868.

The President in the chair. Forty-five members present.

The President, in a few appropriate words, announced the death of Octavius Pickering, Esq., a member of the Society, and one of the founders of the "New England Society for the Promotion of Natural History," from which the present Society sprung.

Mr. W. H. Dall offered some remarks upon the natural history of Alaska, where he had spent several years in explorations.

Mr. Dall said that although the specimens collected by him in that country had not yet been carefully examined and compared, still certain facts of great interest might be considered as pretty definitely settled.