of one form, previously described by Signoret as *Chœrocoris nigricollis*. Dr. Stål, in his Enum. Hemip., has already included *C. silphoides* as a synonym of that species, from which it does not differ, but, apparently led away by Mr. Walker's remark at the end of his description of *C. erotyloides*, that "the shorter body and the marking of the thorax and scutellum distinguish it from *comes*," has placed this form as a variety of *C. comes*, Fab. The following is the synonymy of the species, and synopsis of variation, which is merely that of colour:

Thorax unicolorous. Scutellum bicolorous.

C. nigricollis, Sign. (*Chœ. nigricollis*), Sign., in Thoms. Arch. ent., ii, p. 270, 489, pl. 11, fig. 1 (1858). *Graptocoris nigricollis*, Stål, H. Afr., i, p. 40, 4 (1864). *Cryptacrus silphoides*, Walk. (Type), Cat. Het., i, p. 12, 5 (1867).

var. *a* *silphoides*, var. β, Walk., Cat. Het., i, p. 12 ...Brit. Mus.

var. *b* „ var. γ, Walk., *ib.* ...Brit. Mus., Coll. Distant.

Thorax bicolorous. Scutellum bicolorous.

var. *c* *erotyloides*, var. β, Walk., *ib.* ...Brit. Mus.

var. *d* „ type, Walk., *ib.* p. 11...Brit. Mus.

Thorax and scutellum unicolorous.

var. *e* shining bluish-black above, in all other respects agreeing with typical form. Hab.: Mongo-ma-lobah.....Coll. Horniman, Distant.

C. erotyloides does not differ in size from *silphoides*, as stated by Mr. Walker. I have seen specimens of each which are strictly alike. It will be seen that the range of colour-variation is alike in both *C. comes* and *C. nigricollis*, the varieties of each I have here described being either extreme or primitive forms, in which there is a total absence of yellow markings above.

West Dulwich: *Aug.* 1*st*, 1877.

BRITISH *HEMIPTERA-HETEROPTERA*—ADDITIONAL SPECIES.

BY O. M. REUTER.

1. ORTHOTYLUS (= LITOSOMA) VIRIDINERVIS, Kirschb., *nec* D. & S.

Capsus viridinervis, Kirschb., Rhynch. Wiesb., pp. 78, 75, and 142, 13.

Pale and somewhat transparent green, clothed with rather longish ochreous hairs; membrane pellucid, the nerves bright and constant green; vertex distinctly marginate; rostrum reaching to the apex of the second pair of coxæ; antennæ about one-fourth shorter than the body, first joint as long as the head, second joint a little more than three and a-half times as long as the first, third joint only about half as long as the second, the fourth more than half as long as the third, the last two joints together shorter than the second; the first and the second joint with a few longer pale hairs.

Length, ♂, 5, ♀, 5½ mm.

Scotland; I found three specimens in August, 1876, on *Ulmus montana*, by Diwie, near Forres (Morayshire).

Similar to *O. prasinus*, Saund. (*viridinervis*, D. & S.), but differing by the marginate vertex and the structure of the antennæ. Also allied to *O. prasinus*, Fall., *nec* Saund., but having the vertex posteriorly much more sharply marginate, the first joint of the antennæ longer and more robust, the second joint with longer pubescence and a few erect hairs, the genital segment of the male shorter, and not wider than the other ventral segments.

2. Conostethus brevis, *n. sp.*

♂, oblong; ♀, oval; second joint of antennæ about as long as (♂), or shorter than (♀) the width of, the head; third joint a little longer than the second, and, especially in the male, curved, fourth joint in the ♀ more than half as long as the third; antennæ shorter than the body, robust, black, the base of the first joint yellow (♂) or yellowish, toward the apex brownish (♀); hinder margin of pronotum not wider (♀), or scarcely wider (♂), than the head, the lateral margins a little sinuated; elytra as long as (♂), or almost as long as (♀), the body, wings a little shorter; legs ochreous, thighs with a few brown spots, anterior tibiæ, especially in ♂, incurved. ♂ and ♀ discolorous: ♂, head flavous, with a brown spot on each side of the base, thorax grey, with the dorsal line and lateral margins flavous, the calli brownish; scutellum flavous; elytra greyish, the sides and cuneus pale yellowish, membrane dusky; the body beneath yellowish; the upper-side of abdomen brownish-black. ♀ pale yellowish; elytra somewhat greenish-grey, with the lateral margins paler, membrane short, not twice as long as the cuneus, nerves pale; abdomen above blackish, beneath green. Length, ♂ almost 2½, ♀ 2⅔ mm.

Scotland; Mrs. Reuter found two specimens (♂ ♀) in saline damp places on the shore near Forres.

Very closely allied to *C. salinus*, J. Sahlb. (*griseus*, D. & S.), but much narrower and shorter. *C. salinus* has the antennæ and legs much longer, the second joint of the antennæ being distinctly longer than the width of the head, the third joint much more curved and longer, the fourth joint not half as long as the third; the elytra longer than the body, the pronotum distinctly wider than the head, with the sides more sinuated, and the posterior angles more prominent; the anterior tibiæ of the male more incurved, &c.

3. Hebrus ruficeps, Thoms.

Hebrus ruficeps, Thoms., Opusc. Entom., 395; J. Sahlb., Notis. Fauna et Flora Fenn., xiv, 266, 2. *Hebrus pusillus*, Flor, Rh. Livl., i, 474, 1 (forte).

The first joint of the antennæ a little longer than the diameter of the eye, or than the second joint, reaching only slightly beyond the apex of the head; body

brownish-black; very finely pale pubescent; head, the first two joints of antennæ, rostrum, and legs, reddish-testaceous; pronotum reddish-brown, the disc brownish, unequal, in the middle somewhat sulcate, apical margin incrassated; elytra, in the brachypterous form, very short, scale-like, black, exterior margin reddish-brown.
Length, 1¾ mm.

Scotland; many short-winged specimens found among *Sphagnum* in August, near Perth, by Dr. Buchanan White and myself.

This species is probably mistaken for the brachypterous form of *H. pusillus*, Fall., but the latter is, as far as I know, not dimorphous; it is larger, having the first joint of antennæ much longer (nearly twice as long as the diameter of the eye), reaching far beyond the apex of the head.

Finland, Åbo et Pargas:
1*st July*, 1877.

ON STRIDULATION IN THE *CICADIDÆ*.

BY A. H. SWINTON.

When we observe the upper surface of the first abdominal segment of a male *Cicada*, the eye is arrested by two convex triangular membranes (tymbals), placed laterally, of the consistency of parchment, and traversed by elevated chitinous ridges, which are indurated centrally to correspond with a series of oblique callosities in the membrane. These organs, resembling minute shells, are either exposed or more or less covered by prolongations of the general integument, and in the female are only denoted and rudimentary; their function is to effect by vibration the music of these insects, communicated, as it appears to me, by scraping the indurated central part of their elevated ridges (representing a lima), over a portion of the cavity in which they are placed, projecting immediately posterior.

Two theories are extant to explain the "drumming" of the *Cicadæ*. The one perhaps most commonly preferred, is derived from dissections made by Réaumur (Mém., v, p. 1; ib. iv, p. 181: Amsterdam, 1741), who, not having seen the living insect, was led to recognise several parts of the structure accessory to the tymbals as engaged in the production of the sound. This view Messrs. Solier and Goureau (who sought to confirm Réaumur's conception by observation and experiments on the Provençal *Tibicen orni*, and *Cicada hæmatodes*, removing and tearing the various adventitious parts, "ventral operculæ," "mirrors," and "tender membranes" in succession) found it necessary greatly to modify, so as eventually and virtually to localise the production of the sound in the tymbals, which when

stripe, faintly edged with darker green than the ground, and on either side are two faintly paler ragged lines also edged with darker green; the lines of the back all terminate in front of the anal flap which is light yellowish-green, with a sprinkling of most minute black freckles; freckles also occur on the hinder parts of the anal legs; a fine short bristly black hair proceeds from each of the usual tubercular situations, but can only be seen with a strong lens.

The pupa skin is nine-sixteenths of an inch in length, of ordinary shape, thickest at the ends of the wing-cases, plump in character, tapering rather suddenly to the anal tip, which has a small projection and a spike from it divided in two sharp points, the abdominal divisions are smooth, the rest of the surface finely punctate; the colour dark mahogany-brown, and rather shining; on the abdomen a few extremely fine short hairs pointing backwards.

Emsworth: *August 9th*, 1877.

DESCRIPTION OF A NEW NEUROPTEROUS INSECT FROM NEW GUINEA, BELONGING TO THE GENUS *MYIODACTYLUS*, BRAUER.

BY R. McLACHLAN, F.R.S.

Myiodactylus nebulosus, n. sp.

Form of *M. osmyloides* (Brauer), but much larger. Body yellowish (perhaps greenish in life). Head with a transverse median impression in the middle above, and with a narrow, longitudinal, median impressed line extending from the posterior margin to between the antennæ, on either side of which posteriorly is an abbreviated, longitudinal, fuscous sulcus; face and palpi pale yellowish, the tips of the mandibles piceous. Antennæ much shorter than the wings, stout, about 42-jointed, very pale claret colour with fuscous hairs. Pronotum with a broad, median, longitudinal, brownish-claret-coloured vitta; hairs whitish. The whole under-side of head and thorax very pale yellowish. Legs whitish (or very pale greenish-white), with long whitish hairs. Abdomen brownish (colours changed), with short whitish hairs; last dorsal and ventral segments both produced in an acute boat-shaped manner; from within the last ventral segment proceeds a stout, up-curved process (penis ?).

Wings whitish, semi-opaque, as if oxidized. Anterior pair oval, the costal margin much rounded, strongly ciliated with pale hairs; costal area very broad: neuration whitish; the base of the forks in the costal area, and apical area, and the origins of the branches of the sector, black; some of the discal transverse veinlets smoky, margined with pale smoky-grey; pterostigma (in both pairs of wings) claret-coloured with a pale smoky-grey cloud beneath it extending to the point of junction of the sub-costa and radius; a pale, smoky-greyish, oblique streak extending from the extreme apex of the wing to the anal angle, but leaving a narrow clear space between it and the margin; sector emitting eleven principal branches. Posterior-wings very narrow, dilated gradually to the sub-acute apex; forks in the apical area

marked with black at the base, but otherwise (excepting at the pterostigma) the neuration is entirely pale: on the inner margin (opposite to the pterostigma) is an oblique, pale smoky-grey cloud.

Length of body, 16 mm. Expanse of wings, 49 mm. Greatest breadth of anterior wings, 11 mm.; posterior, 8 mm.

New Guinea (Ausus, *A. B. Meyer*, 1873).

This fine insect belongs to the Dresden Museum, and has been communicated by my friend Baron E. de Selys-Longchamps, to whom it was forwarded by Dr. Kirsch, of Dresden, for identification. I believe it is a ♂, but the abdomen has been laterally crushed.

It differs from *M. osmyloides* in its much larger size, semi-opaque, whitish, non-iridescent wings, the presence of smoky-grey marginal streaks or clouds, the broad claret-coloured vitta of the pronotum, &c.; and in *M. osmyloides*, the transverse reticulation is almost entirely black. I believe *osmyloides* extends into the Malayan islands (although it is typically from Queensland), and I have an example labelled "China," though there may be some doubt as to the correctness of this.

The two other Australian species, *M. sejunctus*, Walker, and *armatus*, McLachlan (possiby sexes of one) differ in their very much narrower anterior wings and less complicated neuration (the costal veinlets being for the most part simple), and also in their remarkable genital armature.

Lewisham, London:
6th August, 1877.

ON SOME NEW AND LITTLE-KNOWN FORMS OF *AGRIONINA* (LÉGION *PSEUDOSTIGMA*, DE SELYS).

BY R. McLACHLAN, F.R.S.

The group of tropical American *Odonata* forming the Légion *Pseudostigma* of the sub-family *Agrionina* is of extreme interest, as containing the largest of existing Dragon-flies, and on account of the extreme length of the slender abdomen, and the tendency exhibited to run into puzzling local forms. The Légion formed the first in De Selys' "Synopsis des Agrionines" (only just completed), and was worked up by him in 1860. With the exception of the description by Hagen (in 1869) of a new species, nothing has been written on the group since that time, and as so much has since been done towards the exploration of the regions where these insects occur, it is natural that additional materials should have been obtained. I propose to give here descriptions, &c., of a few remarkable forms existing in my own collection, being prompted thereto by the discovery of a species having a very anomalous neuration.