

The Genus *Leptocimbex* Sem., and some other *Cimbicidae*.

By

RENÉ MALAISE.

With 2 plates and 10 fig. in the text.

The genus *Leptocimbex* was first described by A. Semenov in 1896 (Annuaire Mus. Zool. l'Acad. Imp. Sc. St.-Petersbourg, p. 1), but his paper fell later into oblivion. This caused the genus to be redescribed as new by three different authors, and in all these cases the authors had only single specimens at their disposition. This synonymy of the genus was first pointed out by the late Dr. Runar Forsius (Notulae Ent. VI, p. 116, 1926).

Our genus is confined to Eastern Asia from Ussuri and Japan over China, Further India and Himalaya to Kashmir. At Kambaiti in Burma the present author found that the *Leptocimbex* occurred only in the early spring, in March and the beginning of April. The specimens described by Konow and Mocsary from Tonkin are all labelled »April—May». Their appearance in the Subtropical Region in the early spring is, probably, one of the causes why they are so rarely found in collections. The only collection in which they occurred in quantities was that made by D. C. Graham at Tatsienlu in the high mountains of Western China, where *L. potanini* Sem. was represented by 22 specimens, but these were all caught at higher altitudes and correspondingly later in the season, in June—July. It is a rather common phenomenon that species, with their home in colder regions or in higher altitudes, become spring-forms when they extend to the South.

My first acquaintance with the genus *Leptocimbex* I made in Vladivostok in 1930, where several specimens of two species were captured. Both these species were described as new, viz. *L. terrifica* and *petri-magni*. When passing Helsingfors on my way home to Sweden I visited the late Dr. Forsius, who had two different and unnamed species of *Leptocimbex* in his collection. Later I obtained both these species in exchange with paratypes of my own new species. The difficulty of recognizing any previously described species aroused my interest in the genus, and for several

years I availed myself of every opportunity to obtain specimens of *Leptocimbex* for my collection. By further exchanges I got specimens of *L. yorofui* (Marl.) and, in 1937, a cotype ♂ of *L. potanini*. A ♀ of *L. kurisuei* (Sato) and some unknown species were bought among an unnamed collection from Messrs Staudinger & Bang-Haas. In Burma I got four different forms, all of them new. My collection of unnamed specimens grew; only one of them I had been able to name by comparison with the type in London, viz. *L. ariana* (Kby). On receiving a ♂ of *petri-magni* I could state the synonymy of this species with *Clavellaria allantiformis* Mocs. The opinion of Forsius' (Notulae Ent. VI, p. 117, 1926), that *C. allantiformis* certainly was the ♂ of *L. potanini*, could be proved as incorrect, but it gives an illustration of the difficulties in pairing together specimens of different sexes. By courtesy of the museums of Budapest and München the types of Konow, Mocsary, and Enslin could be obtained as loans, and, when visiting London, an accurate and detailed redescription had been prepared of Turner's type of *Clavellaria marginata*. My specimen of *kurisuei* fitted the description of Sato in all particulars, and no doubt could be left as to the identity of my specimen, which in turn proved to be identical with *gracilentia* Mocs. *Cimbicisoma dendrobii* Rhw. is thus the only species I have not been able to see, neither the type nor any specimen, and I have, accordingly, to rely on the description of Rohwer.

Such extensive material as that before me, to the greater part composed of types, has never before been concentrated by one hand. With this material for comparison one would have thought it should have been easy to fix the specific differences and to name the undetermined specimens, but new difficulties arose successively. It was especially difficult to place the forms related to *L. potanini*, and the two species *konowi* and *gracilentia* show hardly any differences besides colour, size, and geographical distribution. In my despair I tried the male genitalia, but unfortunately the males are unknown in several of the forms. The ♂ genitalia have previously proved most valuable for me to separate closely related species of the *Tenthredo xanthoptera* group, but I failed altogether in an attempt to prove extremely differently coloured forms of *Tenthredopsis* (*Thomsonia*) from Burma to be different species, although good series of correspondingly coloured ♂♂ and ♀♀ without sculptural differences were compared. When at first comparing the ♂ genitalia of *L. potanini* (cotype) with those of my new *sinobirmanica* from Burma and a ♂ from Suchan a similar failure as that with the *Tenthredopsis* was obviously pending. When comparisons were extended to other species, good differences were found in the shape of the penis itself. The above mentioned *sino-*

birmanica is described as a variety of *L. potanini*, but the different colour and the form of the penis would have justified it being described as a new species, this perhaps even with more right than the new *tuberculata*. The ♂ from Suchan has a somewhat different sculpture of the supra-antennal tubercles and also a slightly different penis from that of *potanini*, but owing to the scant material it was deemed advisable not to separate it from *potanini*, at least for the present. When the ♂ of *marginata* (Turner) is found, the shape of the genitalia may justify a restoration of the present variety as a species, but owing to the lack of sculptural characters it is now better placed as a variety of *potanini*. Drawings of the penis of all species known to me in the male sex are given (exception: *L. allantiformis*).

In order to save space and to make a determination more easy for future students the following monography has been given the shape of a key.

The Genus *Leptocimbex* Semenov.

(Euclavellaria Enslin, Cimbicisoma Rohwer, Okamoto-nius Sato.)

1. The discoidal cell of the front wings strikingly more darkly infuscated than the 1st radial and basal cells, or the front wings not distinctly infuscated, only more darkly yellowish hyaline along the anterior (costal) margin. Propodeum always shining without any punctures. If not otherwise stated, head above and entire mesopleura opaque owing to quite dense micropunctuation; Inner orbits with a shining stripe along the eyes. Head above the antennae, thorax (except both scutelli and pronotal angles when specially stated), and narrow base of the abdominal tergites black. Postocellar area little wider behind than long, with straight, mostly shining, and uniformly narrowly sunken lateral furrows. 2
- The anterior (costal) margin of the front wings distinctly infuscated from base to apex. Labrum, clypeus, and mostly entire face below the antennae (exception: *L. tonkinensis* Knw) pale yellow. 4
2. Front wings yellowish hyaline (not infuscated) along the anterior (costal) margin, only the discoidal cell sometimes with an infuscated spot. Black with faint bluish tinge; yellow are: antennae, head below antennae and eyes, knees, tibiae, and tarsi. Abdomen fulvous, propodeum lemon yellow, the basal of the following tergites with very narrow basal margin: the fulvous of the tergites turning yellow laterally above. Lateral furrows of the postocellar area almost parallel. Mesopleura with rugosely punctured blunt carina below. Scutellum roundly elevated, surface between the large, scattered punctures strongly shining. Mesonotum with micropunctuation between the rather fine, scattered punctures. Club of antenna not slender. Length ♀ 14 mm; ♂ unknown. (1 ♀).
L. ariana (Kirby). (Plate II, C).
- Front wings with very dark brown spots over at least the discoidal and the second radial cells. Antennae black, club very slender. Trochanters, tibiae, tarsi, and broad hind margin of the tergites yellow, on the 2nd and 3rd tergites broadly interrupted in the middle. 3
3. Two basal antennal joints, entire head below the antennae, scutellum, broad pronotal angles, apex of coxae, and base of hind femora pale yellow.

Pale margin of the 4th—7th tergites interrupted in the middle. Stigma fulvous; the infuscation of the radial and discoidal cells connected by a stripe along the radial vein. The 6th antennal joint only little shorter than the 4th. Scutellum without distinct punctures. Frontal area and the orbits on each side of it uniformly and distinctly although not strongly shining to the eyes; as mesonotum with coppery greenish tinge. Length ♀ 17 mm; ♂ unknown, (1 ♀).

Japan.

L. yorofui (Marlatt).

— Above enumerated parts black, only labrum, and sometimes narrow margin of the clypeus and rarely of the pronotum yellow. Pale margin of the tergites complete from the 4th, but the two last tergites entirely black in the ♂. Infuscation of the radial and discoidal cells connected only by the infuscated stigma. Extreme apex of hind tibiae black in the ♀, and apical 3/5th black in the ♂. Mesopleura and legs with distinct bluish tinge, upper side of head and thorax almost without any tinge. Length of the antennal joints 4 and 6 as 3 : 2. Scutellum with isolated large punctures. Only the narrow inner orbits shining. Length 13—15 mm. (1 ♂, 3 ♀♀). Ussuri; North Corea.

L. allantiformis (Mocsary).

(petri-magni Malaise).

4. Anal cell without distinct cross-vein, but with a punctiform constriction. Very small species, length only 11 mm. Head entirely dull, velvety opaque above, lateral and postocellar furrows wanting, the former perceptible only before their posterior terminal. Propodeum with distinct punctures only near the posterior margin, basally opaque owing to microsculpture. Scutellum with fine, scattered punctures and microsculpture. Labrum with middle carina in the ♂. Club of antenna not specially slender. Head and thorax with long black hairs. Black; lemon yellow are: face below the pale antennae (antennae missing in the ♂ specimen), narrow hind margin of apical tergites above from the 4th one, (indication of pale margin of the 1st tergite in the ♂), knees, tibiae, and tarsi, broad apex of the tibiae black. Femora yellow in the ♀, ferruginous in the ♂, with broad black stripes in both sexes. Entire underside of the abdomen, and most of the tegulae and the last tergite ferruginous in the ♂. Penis (Fig. I, D). (1 ♂; ♀ after Semenov).

China, Prov. Szechuan (Shubagu Valley); North Burma (Adung Valley).

L. venusta Semenov.

— Anal cell with distinct cross-vein. 5

5. Postocellar furrow obsolete. Labrum with distinct medial carina. Head between the eyes opaque, finely granular, laterally coriaceous with a few sparse setigous punctures; postocellar area narrowing anteriorly, the cephalo-caudal length slightly greater than the posterior width; antennae seven jointed, second and third joint of the flagellum subequal in length, the apical joints not well differentiated. Rufo-ferruginous; spot on the anterior margin of the prescutum, the sides and thorax beneath (sic!), and first two abdominal segments, black; legs black, except the apices of the femora, tibiae, and tarsi, which are the color of the body. Length ♀ 18 mm. (After Rohwer).

British Burma.

L. dendrobii (Rohwer).

— Postocellar furrow distinct. 6

6. The maximum thickness of the antennal club 3 to 4 times that of the 4th joint at the apex; the club accordingly in most cases distinctly set off against the "handle". 7

— Club of antenna slender, only about twice as thick as the 4th joint. Head above and the mesopleura minutely and densely punctured with opaque or semi-opaque general lustre, mesopleura never wrinkled. Mesonotum with micropunctuation between the scattered punctures; these punctures

mostly distinct, and they are extremely fine only if specially stated. Lateral furrows of the postocellar area mostly with the sides sloping gradually; the furrows only rarely more shining than the semiopaque surroundings. 11

7. Owing to the extremely fine, dense, and uniform punctation the head almost down to the base of the mandibles (but not face below the antennae), the mesopleura, and the mesonotum nearly absolutely opaque. The postocellar and especially the lateral furrows fine and abruptly sunken, strikingly shining. Mesopleura without distinct carina below. Head and thorax with long, sparse, black hair. Scapus and pedicellus brown, at least part of the 3rd antennal joint black. 9
- Punctuation of head irregular above with rather coarse scattered punctures and the surface between them with more or less rugose microsculpture; the general surface nevertheless with rather distinct lustre. Mesopleura with equally strong punctation, but the punctures mostly becoming indistinct and rugose, mostly with distinctly elevated wrinkles. Mesopleura corner-likely elevated below towards the mesosternum, sometimes with a blunt or irregular carina. Lateral furrows of the postocellar area in the middle mostly extremely fine and almost obliterated, especially in the ♀; more distinct and deep towards both ends. Propodeum in both sexes with strong middle carina, strongly shining, and with isolated distinct punctures; following tergites densely punctured. Thorax black; tegulae, upper margin of the pronotum, and sometimes the scutellum pale (fulvous to more or less reddish brown). Venter pale 8
8. Head above the antennae mostly black. Scutellum with very deep and distinct punctures reaching down on to the appendage. Punctuation of the head rather dense, somewhat rugose above, but, as the punctures are deep, the general surface becomes extremely rough. The rigid part of the club (the apex including the 6th joint) only 2.5—3 times longer than its maximum width. 10
- Head fulvous above; blackish brown are: a triangular spot at the upper corner of each eye, three small dots confined one to each of the three nearly equally deep pits immediately above the fulvous antennae, and a small ocellar spot prolonged backwards as an indistinct medial stripe on the postocellar area. Scutellar appendage impunctate. Punctuation of the scutellum shallow and indistinct; that of the head above not quite dense, and the punctures rather shallow with the ground between them micro-wrinkled only in the anterior half of the postocellar area and on each side of it. Antennal club (including the 6th joint) 3.5 times longer than its maximum width (accordingly slender). Thorax black with faint bluish tinge (at least in the ♂); yellow are: the broad upper pronotal angles, the tegulae, the lateral corners of the mesonotal middle lobe, and the scutellum with appendage, postscutellum, and lateral ridges. Face below the antennae, and the propodeum lemon yellow. Abdomen (including the entire underside of it) somewhat fulvous yellow; brownish black are on the upper side: the 2nd tergite almost entirely, very narrow basal stripes broadening somewhat laterally on the 3rd—7th tergites, and a very narrow and sometimes indistinct middle stripe along the 3rd—8th tergites. Legs yellowish; blackish are: broad longitudinal stripes behind on all coxae and on the front femora and trochanters, the entire four femora and trochanters except the knees, and sometimes the hind tibiae more or less. Lateral carinae of the propodeum very strongly elevated in the anterior half, then disappearing altogether, the circumocellar furrow continues as two straight, very deep, sharp, and narrow furrows to the lateral pits, thus obliquely separating the supra-antennal from the ocellar tubercles. Length 19—

20 mm. Penis (Fig. 1, E). (2 ♂♂; type in Mus. Washington, paratype in the author's collection).

Szechuan (Mt. Omei, and Bet. Mt. Omei and Mt. Wa, 2000 m.).

Type locality: Mt. Omei.

L. grahami n. sp.¹

9. Postocellar area very little longer than wide; without middle carina. Propodeum opaque towards the base in the middle owing to microsculpture, its posterior margin, like that of the scutellum, somewhat shining and with scattered larger punctures. Black; entirely yellow are: supraclypeal area, club of antenna, basal half of all tibiae, and all tarsi. Dark fulvous are: tegulae, entire underside of the abdomen in the ♂, complete but very narrow hind margin of the 4th to last tergites above, and underside of coxae, trochanters, and femora. Propodeum with narrow yellow hind margin, sometimes wanting; remaining tergites densely and uniformly punctured, and with faint bluish lustre. Length 13 mm. Penis (Fig. 1, A). (2 ♂♂; type in the author's collection, paratype (lacking the antennae) in Museum Paris); ♀ unknown.

Burma — Yünnan frontier at 2000 m. altitude; Szechuan (Moupin).

Type locality: Kambaiti in Burma.

L. tenuicincta n. sp.

- Postocellar area wider than long, as 3 : 2; with extremely low, roof-like middle carina. Propodeum shining, only with faint indication of microsculpture, the broad hind margin fulvous; remaining tergites with extremely dense and fine, uniform punctation, absolutely opaque. All pale markings fulvous to reddish brown, only labrum and anterior part of the clypeus more or less distinctly yellow. Black; pale are: mouthparts, base of the 3rd antennal joint, very broad pronotal angles, margin of the tegulae, broad hind margin of at least the 1st and the 5th tergites, and knees more or less; anterior or all tarsi very dark brown. Length 12—13 mm. (Types in the author's collection).

Burma — Yünnan frontier at 2000 m.

Type locality: Kambaiti in Burma.

- a) Only the 2nd and 3rd tergites quite black, remaining ones with broad fulvous hind margin. (1 ♀).

L. fulvocincta n. sp.

- b) Only the propodeum, the 5th tergite, and anus of the apical segment with fulvous colour, all remaining tergites black. (3 ♀♀).

L. fulvocincta var. *bifasciata* n. var.

10. From the bases of the antennae two roller-like tubercles directed backwards and then abruptly ending, thus completely separated from the tubercles of the lateral ocelli. The prolongations of the circumocellar furrow passing obliquely through this gap between the tubercles in the shape of deep and narrow furrows continuing to the pits laterally of each supra-antennal tubercle. The entire postscutellum elevated into an acutely triangular apex. Apex of the abdomen above with a large, rounded, yellow spot over the 5th to the last tergites. The 2nd tergite entirely black above, the following two with reddish brown hind margin. The deflexed parts of all tergites mainly pale; the sternites blackish with pale hind margin. Scutellum, including the four lateral ridges, dark reddish brown with a large black spot behind. Head black above; hind orbits with a broad pale brownish stripe narrowing upwards, and reaching from the base of the mandibles to and including the hind corners of the postocellar area. Propodeum pale yellow. Legs black down to the knees; apical 2/3rd of the tibiae brownish; rest of the legs yellow. Length ♀ 15 mm.; ♂ unknown. (1 ♀, lacking the antennae; type in the author's collection). Central China (Kiukiang).

Type locality: Mt. Kuling.

L. tuberculata n. sp. (Plate II, B).

¹ Named in honour of the collector, D. C. Graham.

- The supra-antennal tubercles sloping backwards gradually and more or less distinctly connected with the also gradually rising tubercles of the lateral ocelli without being cut through by the circumocellar furrows (Plate II, D). Postscutellum mostly truncate when seen from behind, but if acute, then the apex raised only from the middle and most of the postscutellum not partaking in the elevation. Head black above the fulvous antennae; base of hind orbits mostly with a pale spot or triangular stripe. Posterior face of the mesonotal lateral lobes with a brown spot. The following varieties may be distinguished:

a) Propodeum pale yellow, only the extreme base black. b

- Propodeum black with narrow pale hind margin; remaining tergites with rather broad fulvous hind margin (2/5th of the entire tergite). Coxae, trochanters, and femora black; club of antenna blackish. Scutellum brown. The black of head and thorax only with extremely faint coppery red tinge. Saw (Fig. 3). Length 15 mm. (After notes from the holotype ♀).
Tonkin (Chapa). *L. potanini* var. *marginata* (Turner) (Plate II, E).

b) The black of head and thorax with strong bluish tinge most noticeable on the mesopleura in the ♂. The apical tergites, beginning with the 6th or 7th, with broad pale hind margin above; in specimens from higher altitudes the 2nd—5th (6th) tergites with narrow fulvous margin, and in two ♂♂ from Mt. Omei and Suchan with very broad margins. Club of antenna fulvous. Longitudinal half of coxae, trochanters, and femora yellow. Scutellum black or reddish brown. Length 13—17 mm. Penis (Fig. 2, A; C). (Cotype ♂, and 15 ♂♂, 8 ♀♀).

Szechuan (Tatsienlu, also 50 km. N., and 15 km. S. W. of this place, 2500—4000 m.; Mt. Omei [Sigipin, 1800—2000 m.]; Ussuri (Suchan).

L. potanini Semenov) (Plate II, D).

- The black of head and thorax with coppery red tinge. All tergites from the 2nd with fulvous or reddish brown hind margin, 2/5th of the entire tergite in the ♀, and 4/5th of it in the ♂. Scutellum dark brown. Club of antenna, and the femora mostly blackish. Penis (Fig. 2, B). (1 ♂, 4 ♀♀).

Burma — Yunnan border, 2000 m.; Szechuan (Moupin).

Type locality of variety: Kambaiti in Burma.

L. potanini var. *sinobirmanica* n. var.

11. The entire propodeum to the base with distinct punctures, the surface between the punctures shining, and the distance between them somewhat longer than the diameter of each puncture (Plate I. If punctures minute and abdomen black, compare Nr. 13). On the head proper, a minute ocellar spot the only black marking, and on the abdomen only the basal margin of the three basal tergites above black. Posterior or all femora broadly striped with black above. Supra-antennal tubercles wanting. The 6th antennal joint partaking in the building of the rigid part of the club, but separated from the 7th joint by a mostly distinct suture. 12
- Propodeum mostly impunctate, or with only minute punctures near to the hind margin; mostly strongly shining, but sometimes with an oily general lustre owing to micropunctures. 13
12. Ground colour dark reddish brown, and the entire wings also brownly infuscated. Antennae extremely slender, length and maximum thickness of the rigid club as 4 : 1. Lateral furrows of the postocellar area deep and sharp almost the entire length. The frontal area open laterally, *vis.* the ridges connecting the tubercles of the lateral ocelli with the antennal base wanting. Except at the base the antennae black from the apex of

- the 3rd joint. Mesothorax without black markings. Hind tibiae infuscated. Length ♂ 20—24 mm.; Penis (Fig. 2, D). ♀ unknown. (From type in Mus. Hungaricae).
Tonkin (Mt. Mauson, 6—900 m.). *L. tonkinensis* (Konow).
- Ground colour sordid yellow; only costal margin and base of the front wings infuscated. Antennae comparatively stout, length and maximum thickness of the rigid club as 3:1. Lateral furrows of the postocellar area extremely shallow, sharp only at the posterior end. Frontal area oval in outline and completely surrounded by ridges originating from the lateral ocelli, but separated from the antennal base by a distinct cross-furrow just behind it (different from the almost obsolete circumocellar furrow). Antennae fulvous. Mesosternum, and three spots on the mesonotum black. Hind tibiae pale. Length ♀ 20 mm.; ♂ unknown. (From holotype ♀).
Formosa (Tainan). *L. formosana* (Enslin) (Plate I).
13. Ground colour of head, thorax, and propodeum reddish brown; rest of the abdomen entirely black with very faint purplish tinge. Labrum, clypeus, and supraclypeal area lemon yellow more or less; likewise all the tarsi. Mesosternum, and three spots (sometimes wanting) on the mesonotum black. Infuscation along the costal margin of the front wings very dark, strongly contrasted with the rest of the wing which is clear; anal cell not infuscated. Labrum without middle carina. Frontal area surrounded by blunt ridges extending from the lateral ocelli. Propodeum with oily general lustre owing to a rather strong micropunctuation, but with dense minute punctures towards the posterior margin. Mesopleura without carina below. Antennae with 7, or sometimes 8 distinctly separate joints, all of them, probably, capable of movements. Length 18—21 mm. Penis (Fig. 1, B). 4 ♂♂, 4 ♀♀; type, allotype, and paratypes in Mus. Washington; paratypes in the author's collection).
Szechuan (near Moupin, Yaogi, Yachow, and Chengtu), 600—2500 m.
Type locality: S. of Suifu. *L. rufoniger* n. sp.
- Apical half of the abdomen pale from the 4th or 5th tergite. Thorax black; pale are (unless stated otherwise): broad pronotal angles, tegulae, scutellum, and postscutellum. Propodeum lemon-yellow with black base; the two or three following tergites black above more or less. At least the 7th and 8th antennal joints rigidly fused together. 14
14. Labrum with strongly elevated longitudinal middle carina (at least in the ♂). Propodeum with some widely isolated minute punctures. Postocellar area twice as wide behind as anteriorly. Frontal area oval, or rather lenticular in outline, and with a rather deep boat-like excavation, not contracted anteriorly. Mesopleura bluntly carinated below. Head black above the antennae, these latter ones fulvous with brown apex; the 6th and 7th joints probably capable of separate movements. Abdominal tergites 2—4 black with broad reddish-brown hind margin above; the following tergites almost entirely yellow. Legs yellow; all coxae and femora broadly striped with black above; the apical 2/3rd of the tibiae fulvous. The black of head and thorax with bluish tinge in the ♂; Penis (Fig. 2, E). ♀ unknown.
Length 17—18 mm. (From the type in the author's collection).
Ussuri (Suchan). *L. terrifica* Malaise.
- Labrum in the middle flat without carina. Propodeum without distinct punctures, mostly strongly shining. Postocellar area narrowing anteriorly, but less strongly. At least the postocellar area with a pale spot, but usually the head to a rather large extent pale above; surroundings of the ocelli always black. Colour otherwise rather variable. 15

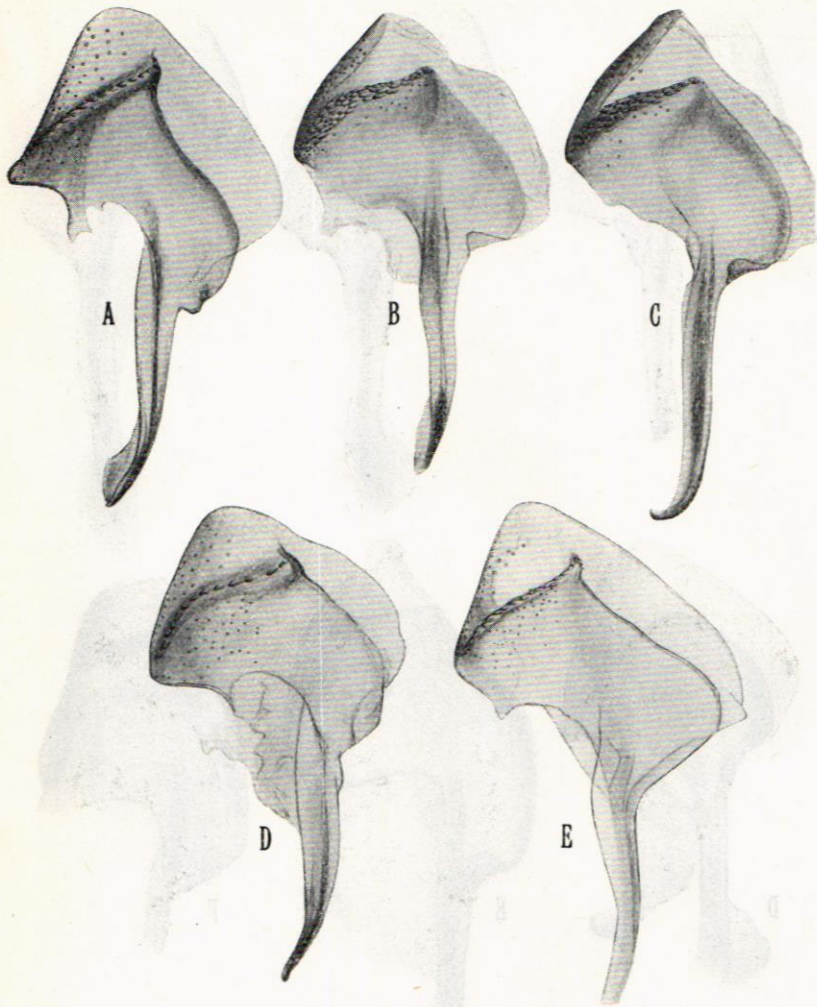


Fig. 1. Penis of: A) *Leptocimbex tenuicincta* n. sp., B) *L. rufo-niger* n. sp.,
C) *L. gracilentus* Mocs., D) *L. venusta* Sem., E) *L. grahmi* n. sp.

15. Lateral furrows of the postocellar area sharply sunken and shining. Propodeum with oily general lustre owing to microsculpture. Frontal depression almost as deep as wide; the lateral ridges of it rather sharp, at the top only $\frac{1}{4}$ of the ocellar diameter. The 6th and 7th antennal joints probably capable of separate movements. The 2nd and 3rd tergites black above, and the entire thorax likewise black, except the scutellum, the pronotal angles, and the tegulae. The four hind legs black, except the knees, tibiae, and tarsi. Face above the antennae, except the postocellar area,

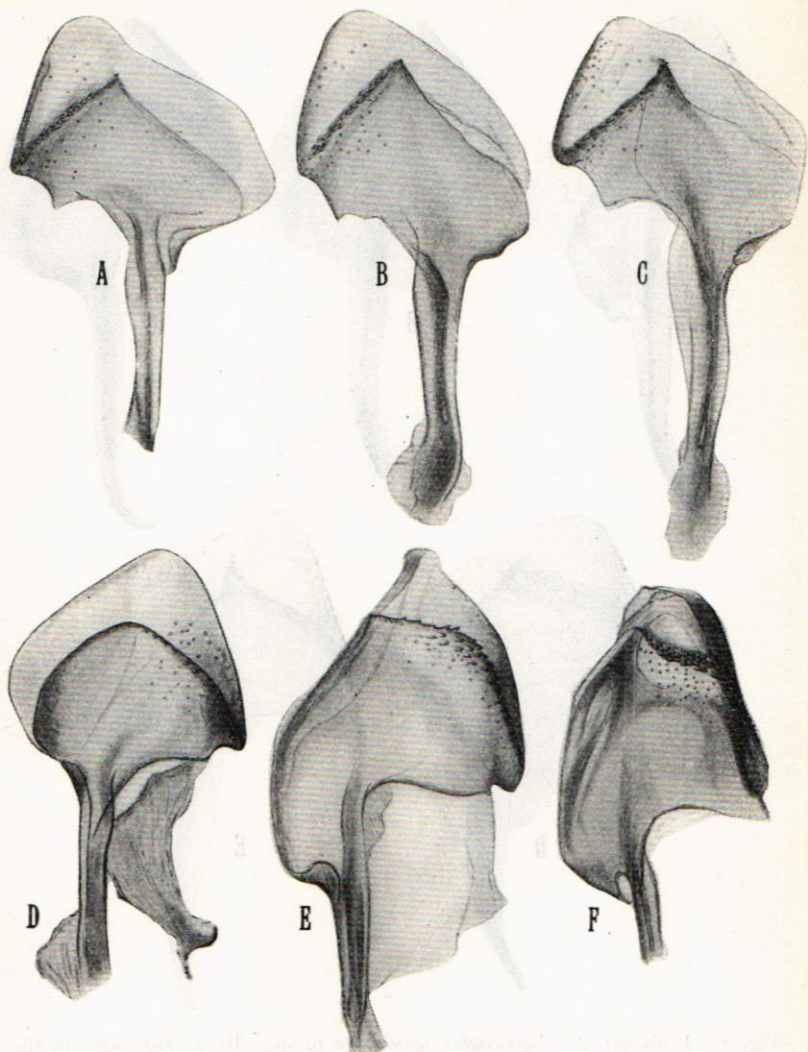


Fig. 2. Penis of: A) *Leptocimbex potanini* Sem. (Type), B) *L. potanini* var. *sino-birmanica* n. sp., C) *L. potanini* Sem. (From Suchan), D) *L. tonkinensis* (Kuw), E) *L. terrifica* mihi, F) *L. mocsaryi* n. sp.

black at least in the ♂. Length 25 mm. Penis (Fig. 2. F). (Holotype ♂ in the Mus. Hung., described by Mocsary as *konowi* var.).
Tonkin (Mt. Mauson, 6—900 m.). *L. mocsaryi* n. sp.¹

¹ To *L. mocsaryi* n. sp. belongs, possibly, a ♀ in the British Museum from the North Chin Hills, N. W. Burma and determined by S. A. Rohwer as *Cimbicisoma*

- Lateral furrows of the postocellar area shallow and open. Propodeum smooth and strongly shining. Frontal depression much wider than deep; the blunt lateral ridges of the depression (the supra-antennal tubercles) as broad as the diameter of an ocellus. 16
16. Length 15—18 mm. The 6th and 7th antennal joints probably capable of separate movements. The entire thorax below the wings black, and likewise the mesonotum in the ♀; the middle mesonotal lobe pale with a black spot anteriorly in the ♂. Four hind coxae, trochanters, and femora black in the ♂; only broadly striped with black in the ♀. Upper hind corner of the eyes, and markings between the eyes black. The 2nd and

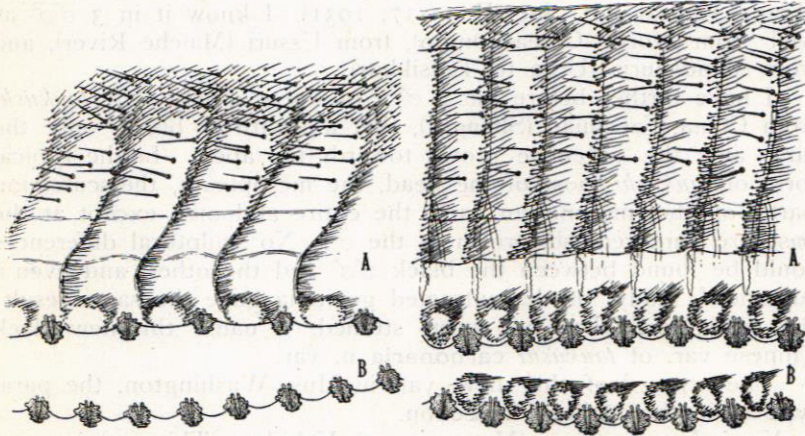


Fig. 3. Saw of *Leptocimbex potanini* var. *marginata* (Turn.). A) Near the base. B) Towards the apex.
Fig. 4. Saw of *Leptocimbex konowi* (Mocs.). A) Near the base. B) Towards the apex.

3rd tergites black with pale hind margin in both sexes. Penis (Fig. 1, C). (Type and paratype ♀ from Mus. Hung.; 1 ♂, 1 ♀ in the author's collection. This ♂ is the allotype.)

Ussuri (Raddefa, and Mt. Sichota Alin); Corea (Mt. Kongo); Central China (Mt. Kuling).

L. gracilentata (Mocsary) (Plate II, A).
(*kurisuei* (Sato)).

- Length 22—25 mm. The 6th and 7th antennal joints distinctly separated, but not enough to be capable of separate movements. Fulvous; black are: a small ocellar dot (extending laterally in all 5 type-specimens a little across the antennal furrows), a large triangular spot on the mesonotal middle lobe, one large and one much smaller and mostly connected spot on each lateral lobe, the mesosternum, the posterior half of the mesopleura, the entire metathorax, the basal half of the propodeum, the entire 2nd tergite above, the 3rd tergite in the middle above, and the four hind

dendrobii Rhw. The occurrence of a sharp postocellar furrow and the lack of a longitudinal carina on the labrum, etc. make this specimen impossible as conspecific with *dendrobii*. On the other hand the specimen, which has the antennae missing and even otherwise is in a very poor condition, has the mesopleura sharply carinated below, in which respect it differs from both *mocsaryi* and *konowi*.

legs, except the knees, the apex of the tibiae more or less, and the entire tarsi. The black of the mesonotum with greenish blue tinge. Face below the antennae, pronotal angles, posterior half of the propodeum, and paired spots on the 3rd and 4th tergites above yellow; the spots of the 4th tergite sometimes separated by a black spot. Base of the flagellum infuscated. Saw (Fig. 4). (From all the 5 type ♀♀ in the Mus. Hung.)¹

Tonkin (Mt. Mauson, 6-900 m.).

L. konowi (Mocsary).

*Neocimbex*² *taukushi* (Marlatt). This species is known from Japan proper, and Takeuchi gives it also from Corea (Kasan) (Trans. Kansai Ent. Soc. II, p. 17, 1931). I know it in 3 ♂♂ as well from North Corea (Ompo), from Ussuri (Maiché River), and from Mandshuria (Urga to Tsitsikhar).

I have further before me 2 ♂♂ of a new variety of *N. taukushi* from China, Szechuan (Shengtu), that are entirely black, only the tarsi and the antennae brown towards the apex. In the typical form of *taukushi* most of the head, the mesopleura, the scutellum, parts of the mesonotum, and the entire abdomen except at the base are dark reddish brown in the ♂. No sculptural differences could be found between the black ♂♂ and the other, and even a superficial study of the extracted genitalia gave the same result; the penis itself has not been studied. I name this new black Chinese var. of *taukushi carbonaria* n. var.

The type ♂ of this new var. in Mus. Washington, the paratype ♂ in the author's collection.

Neocimbex castanea (Matsumura & Uchida). This species was described from a single ♀ from Japan (Shibata, Niigata Prov.), but Takeuchi (loc. c.) supposed the description was based upon an old and discoloured specimen of *taukushi*. From China, Szechuan (Pin-fa) I have a ♂ that fits the description of *castanea* in most respects. The most important of the characters given, and that which at once will separate this species from *taukushi* is the sculpture of the scutellum and of the postocellar area. Both are quite impunctate, and both have a prominent longitudinal middle furrow, that of the postocellar area is sharp. The scutellum is most elevated in the anterior half and there divided by the very broad and deep but not sharp middle furrow. In *taukushi* the scutellum is

¹ The *Clavellaria konowi* was described by Mocsary from 2 ♂♂ and 5 ♀♀; one of these ♂♂ as a special var. (now *L. mocsaryi* n. sp.). By courtesy of the Museum Hungaricum the author has been able to see all the ♀♀ and the ♂ var., but not the remaining ♂, which, probably, has been destroyed by insect pests. From Kwanhsien, Western China the British Museum possesses a ♀ lacking the antennae and probably belonging to *L. konowi*, although somewhat differing from the types, which all are very similar.

² As *Tenthredo amerina* L. was designated as type of the genus *Cimbex* by Fabricius in 1804, the *Cimbex* of authors was changed into *Neocimbex mihi* (Ent. News, XLVIII, p. 134, 1937).

strongly punctured and most elevated behind, almost shaped into a blunt carina describing a curve and extending to the two anterior corners. The anterior fourth of the clypeus, including the medial incision and the teeth beside it, is strongly and rather suddenly deflexed in *taukushi*, but the clypeus is not deflexed in *castanea*. The mesopleura and the clypeus are less punctured and more shining in *castanea* than in *taukushi*, but the abdomen is not »strikingly shining» in the ♂, as it is given in the description of the ♀ of *castanea*. The ♂ genitalia are different in the two species, viz. they are in parts more broad and sturdy in *castanea*. The colour of the two species is also different; the extension of the black is more restricted in *castanea*, e. g. the abdomen is entirely brown without black even at the base. The *N. castanea* (Matsamura & Uchida) must be considered a distinct species.

Trichiosoma sikkimensis Konow. This species has been hitherto only known in the ♂.

In the Zoological Museum of the University, Berlin there are more than 50 ♂♂ of this species, all labelled »Sikkim, Coll. Bingham». In the same collection are further 5 ♂♂ and 4 ♀♀ of two different and unnamed species, all labelled in the same way. The ♀♀ aroused my special interest, not only because I had a fifth specimen of the same species in a collection belonging to the British Museum, London, but because they were so extremely similar to large bumble-bees (*Bombus*). I found it most extraordinary that the bumble-bee species only should occur in ♀♀, and the *T. sikkimensis* only in numerous ♂♂. Through my mind flashed the possibility they should be the different sexes of a single species, but this thought was at once discarded as too improbable. Although seemingly impossible the suggestion would not leave my mind, and a closer investigation revealed the fact that the differences between the ♂♂ and ♀♀ were confined to colour of hair, and to the form of the abdomen and of the hind legs, all characters that may be influenced by the sex. It may be regarded as almost certain that the »bumble-bee» species is the ♀ of *T. sikkimensis*. The general sculpture, the punctuation, the antennae, and the wing-pattern are alike in both sexes.

The body of the ♂ is covered with long, sparse, and pale grey hairs, but the hair-covering of the ♀ is black, short, and dense, except at the extreme apex of the abdomen, where the colour of it turns suddenly bright reddish. The apex of the abdomen is reddish brown in the ♂ too, but as the body-hairs are grey the contrast is less striking. Along the middle of the abdomen there is a very narrow stripe almost without hair in both sexes. The abdomen of the ♂ is of an elongated form as in other species of the genus, but it is very short and rounded in the ♀. The form,

colour, and hair-covering of the abdomen co-operate to give the ♀ the striking resemblance to a large bumble-bee. The four hind femora are strongly incrassated in the ♂, especially in the posterior legs, and each femur has two irregularly dentated carinae along the underside. Each of these carinae terminates with a hooked spine before the apex of the femur. The curved hind tibia in the ♂ may be folded down between the two carinae of the femur. All femora are slender in the ♀, and the carinae and the spines are rather poorly defined. The antennae have each six free joints in both sexes, and additional two or three joints are fused together into the rigid part of the club. The labrum has almost the same shape in both sexes, but it is larger in the ♂. It is nearly flat, only with a faint indication of a convexity along the middle. Length of ♂♂ 23—24; ♀♀ 20 mm.

This description is prepared from 2 ♂♂ and 1 ♀ in the author's collection, obtained in exchange from the Berlin lot, and from 1 ♀ belonging to the British Museum, London. This latter ♀ is labelled »Senchal, Darjiling, 8000', C. T. Bingham». No differences could be found between the originally 4 ♀♀ in the Berlin collection.

Trichiosoma himalayana n. sp. The 5 unnamed ♂♂ in the collection of the Berlin Museum are very like *Trichiosoma anthracina* Forsius, and were at first supposed to belong to this species. Forsius' species was described from the Kuku-Nor Mountains near South-western Mongolia, a semi-arid steppe country and far away from the subtropic and very moist Himalayan southern slopes. The different climatic conditions in the two distant homes indicate that the Himalayan specimens should belong to a different although closely related species, and so they are. From the description alone no differences were found, except that the antenna should be 7-jointed instead of 6-jointed. This character seems very good, but the different number of antennal joints depend in the *Cimbicinae* of how far the fusion of the joints composing the club has proceeded. This fusion is rather variable, and in some species individuals may be found with the joints of the club in different stages of fusion. The limit between two fused joints may be more or less sharply marked, and, if sharply marked, by some authors be termed as to separate two distinct joints.

By courtesy of the Zoological Museum of Hamburg the holotype ♂ of *T. anthracina* was obtained for study and permission granted to dissect the genitalia, for which loan the writer wishes to express his gratitude.

Both species in question are entirely black, and in most other characters, as size, sculpture, hair, spines of the femora, etc. they are so similar that only a minute examination will reveal the differences. The easiest observed character that separates the two

related species gives the anal cell of the front wing. This cell is contracted in *anthracina*, but with a rather long cross-vein in the new species. The punctuation of the abdomen and of the scutellum is denser in the new species (Fig. 5). In *anthracina* the abdomen is strongly shining, and the basal tergites only with very fine, almost imperceptible isolated punctures in the middle above, whereas in *himalayana* the punctures are much denser and the tergites a little less shining. The scutellum and the mesopleura have the same sculpture, and are strongly shining with deep scattered punctures in both species, but the punctuation is denser in *himalayana*.

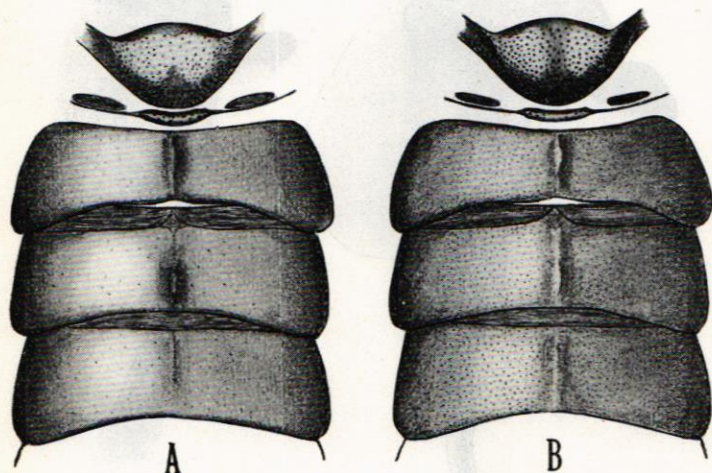


Fig. 5. The scutellum, the postscutellum, and the three basal tergites of the abdomen A) in *Trichiosoma anthracina* Fors., B) in *Trichiosoma himalayana* n. sp.

In the new species the thorax and abdomen are covered with rather sparse long whitish hair, but the hair are darker, and much more sparse and short in *anthracina* and, therefore, less conspicuous especially as the middle of the tergites are almost naked. In *himalayana* the 6th—9th joints of the antenna are completely fused together into a rigid club, and only shallow depressions indicate faintly the remnants of the former joints (in the specimen from the United Provinces a partly interrupted seam is noticeable between the 6th and the 7th joints). In *anthracina* the 6th and 7th joints are separated by a sharp seam, but the joints are not capable of independent movements. The ♂ genitalia of *anthracina* are different and much smaller than those of *himalayana*, which latter are mutually alike in all the 5 specimens (Fig. 6). Length 17—19 mm. (*anthracina* 17 mm).

4 ♂♂ labelled »Sikkim, Bingham», and 1 ♂ »above Munsiaire at Almora, U. P., 8000', 26.6.» Type and 2 paratypes returned to the Berlin Museum; 2 paratypes in the author's collection.

The peculiar armament of the hind femora, described above under *T. sikkimensis*, separates *sikkimensis*, *anthracina*, and *himalayana* from all other species of the genus *Trichiosoma*. Species with a similar armament of the legs may be separated as a special

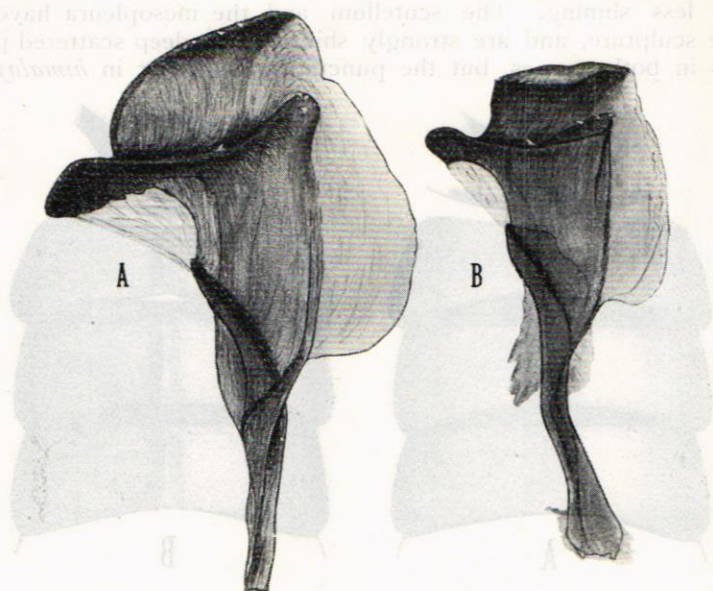


Fig. 6. Penis of A) *Trichiosoma himalayana* n. sp., B) *Trichiosoma anthracina* Fors. Both penises are equally enlarged and the different size is remarkable as the insects are almost equally large, 18 and 17 mm respectively.

subgenus for which I propose the name *Asitrichiosoma*, n. subgen., with *T. sikkimensis* Knw as type.

Trichiosoma zaraeoides n. sp. Black; the entire metathorax including the postscutellum, the propodeum, and the 1st sternite whitish. Base of propodeum black. The tibial spurs reddish brown, and the underside of the tarsi partly pale. Head, thorax, propodeum, and base of legs with long, outstanding, and reddish brown hair. The basal half of the hair on the head black, the hair of the thorax almost entirely red. Head above, broad pronotal angles, mesopleura, scutellum, and middle of the three mesonotal lobes entirely opaque owing to rather fine and dense punctures and a micropunctation between the punctures; the sculpture of the scutellum and the mesopleura made almost invisible by dense hair.

Mouthparts, mesosternum, and depressed parts of the thorax shining more or less; frontal area, surroundings of mesonotal seams, and the abdomen opaque above, but with a very faint general lustre. Head strongly enlarged behind the eyes (as normal for the genus), and the postocellar area subconvex, with very sharp and shining, abruptly but not deeply sunken lateral furrows. These furrows are bent anteriorly, then almost straight and very slightly diverging, and terminate rather suddenly about half-way to the hypothetical hind margin of the head and on the extreme top of the enlarge-

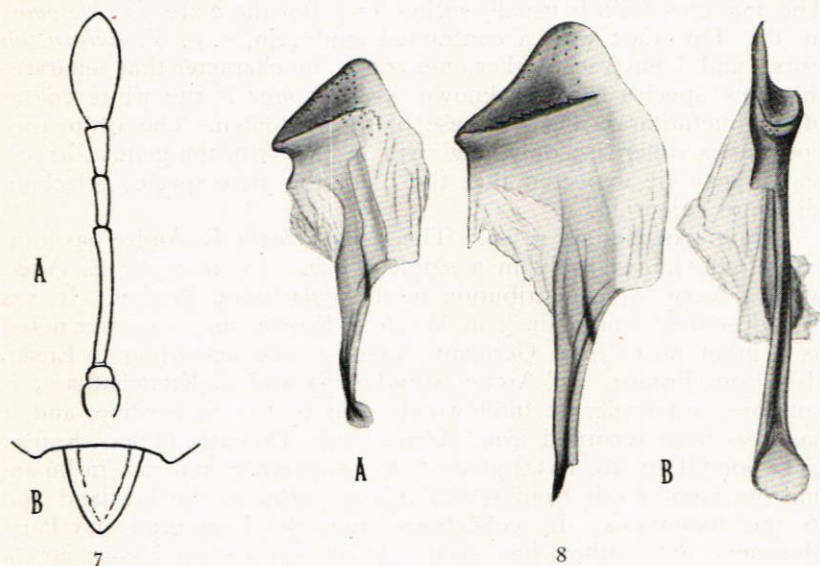


Fig. 7. *Trichosoma zaracoides* n. sp. A) Antenna. B) Clypeus and labrum.

Fig. 8. Penis of: A) *Praia ussuriensis* n. sp. B) *Praia taczanowskii* André.

Both penises are equally enlarged.

ment. Inter- and circumocellar furrows sharp and deep, postocellar furrow less deep and not sharp. Clypeus with very broadly emarginated anterior margin; labrum triangular (Fig. 7, B). Antennae with 5 joints before the rigid club; the joints of the club very indistinct (Fig. 7, A). Hind legs rather slender, the femur without the usual spine near the apex. Saw-sheath roundly pointed when seen from above. Claws simple. Wings hyaline with the hind border infuscated; the anal cross-vein punctiform and the anal cell may, therefore, equally well be termed as shortly contracted. Length of ♀ 14 mm.

N. E. Burma, Kambaiti, 2000 m. (5 km. from the Chinese frontier). One ♀ collected by the author.

This new species may be regarded as a connecting link between the genera *Trichiosoma* and *Zaraea*, but the majority of the characters place it in the genus *Trichiosoma*. The most important of these characters are: the broadly emarginated clypeus, the triangular labrum, the subconvex instead of concave postocellar area, the venation, the wing-pattern, the form of the antennae, etc. All hitherto known species of *Trichiosoma* have, on the other hand, well developed spines on the hind femora, but it is not quite out of the question, that the yet unknown ♂ possesses such spines. The anal cross-vein is usually rather long, but there are *Trichiosomas* in the Far East with a contracted anal vein, e. g. *T. anthracina* Fors., and I have seen other ones too. The character that separates this new species from all known *Trichiosomas* is the white colour of the metathorax and the base of the abdomen. The white propodeum is otherwise only met with in the ♀♀ of the genus *Zaraea*, and it may be expected that the ♂ of this new species is lacking all white colouring.

Praia ussuriensis n. sp. The genus *Praia* E. André has hitherto been known only in a single species, *taczanowskii* E. And., with a very wide distribution in the Palaearctic Region. It was first described from Minsk in Western Russia, and was later noted as a great rarity from Germany (Leipzig) and according to Enslin also from France. In Arctic Scandinavia and in Kamchatka it is not rare, especially in birch-woods near to the timber-line, and it has also been recorded from Arctic Ural. Takeuchi (Trans. Kansai Ent. Soc. II, p. 20, 1931) gives *P. taczanowskii* as not rare in Japan, and he mentions it from several places, both in the low-land and in the mountains. In collections from the Leningrad and Paris Museums the author has seen a good series from Ussuri and a single ♀ from the Island of Sachalin. In specimens from all other places (including a single ♀ from Japan proper) the two sexes of *Praia* are almost equal, and the abdomen is black with a very pale yellow and narrow hind margin on all tergites except the 2nd. The ♂♂ from Ussuri are superficially similar even in size to ♂♂ from other places, but the ♀♀ have the hind margin of the tergites strongly broadened so that it includes more than half of the entire tergite, and the pale colour has changed to an orange yellow.

The author regarded at first these specimens as a colour-variety of the ordinary *P. taczanowskii*, but a study of the ♂ genitalia proved these to be somewhat different in the form and size of the penis. In all the three available ♂♂ from Ussuri, this form of the penis was quite constant (Fig. 8, A), and likewise was the form of the penis mutually constant and alike in all studied ♂♂, whether they originated from Kamchatka or from Lappland.

Constant differences in the genitalia are generally regarded as

good specific characters sufficient to separate two species even if, as in this case, no other structural differences can be found. The ♀♀ have to be separated with help of the colour of the abdomen.

3 ♂♂, 4 ♀♀ from Ussuri (Vinogradovka), and one ♀ from Sachalin (locality unknown).

Type ♂, allotype ♀, and paratypes in Mus. Leningrad; paratype ♀ in Mus. Paris, and paratype ♂♀ in the author's collection.

Type locality: Vinogradovka.

Zaraea alutacea n. sp. Black, almost without metallic lustre on head and thorax, but the abdomen with faint bluish tinge in the ♂, and still fainter copper-ore tinge in the ♀ above; basal sternites light brown. First tergite of the same colour as all the rest. Antennae and legs black; the extreme apex of the femora, and the entire tibiae and tarsi pale; this pale colour stramineous in the ♀, reddish brown in the ♂. — Antennae distinctly 7-jointed, the two last joints subequal in length, about as long as broad, but shorter than the 5th; the 3rd joint twice as long as the 4th in the ♀, somewhat shorter and more strongly curved in the ♂. Head above and the entire thorax opaque, except the anterior third of the scutellum and, in the ♀, the mesosternum. This punctation consists of some fine and widely scattered punctures, and the space between them is covered by still finer and quite dense punctures. The general surface, therefore, becomes quite dull, and in parts, e. g. on the lateral lobes of the mesonotum, without even a trace of lustre. Abdomen distinctly but not strongly shining, towards the base becoming more opaque owing to micro-striation. Clypeus and labrum without punctures, shining; the former as if flattened and the anterior margin truncate or faintly rounded. The opaque frontal area subsquare in outline with rounded corners, hardly depressed in the centre, almost flat. The median ocellus surrounded by a shining furrow, very shallow in front, but sharp and deep behind. Each lateral ocellus standing on an oblong tubercle, and by this tilted outwards. Interocellar furrow sharp and deep. These ocellar tubercles along the outer side with a sharp furrow. These furrows backwards meeting in a triangular shining space. Vertex distinctly although shallowly depressed in the ♀. Distance between the eyes above equal to the distance between the outer edges of the lateral ocelli in the ♀; and equal to three quarters ($\frac{3}{4}$) of the diameter of an ocellus in the ♂. Head with long black hair, thorax with more grey hair. The 4th to 7th abdominal tergites with brown tomentose area in the ♂. Claws simple. Front wings infuscated with an Y-shaped cross-band (as in *Z. mutica* Thoms., *lewisi* Cam., or *aurata* Tak.).

Length ♂ 8—9; ♀ 8,5—9,5 mm.

3 ♂♂, 2 ♀♀, all from China, Prov. Szechuan (Moupin); Rev. A. David, leg.

Type, allotype, and one paratype ♂ in Mus. Paris; paratype ♂♀ in the author's coll.

The most remarkable character of this new species is the short distance between the eyes above in the ♀. In all the East-Asiatic species (*Z. sibiria* (Mocs.), and *aurata* Tak., still being unknown to me) this distance is much wider, as a rule equal to this distance added to twice the diameter of an ocellus. In the ♂ this distance is usually shorter than in the new species, usually equal to half the diameter of an ocellus. The absolutely dull general surface of the head and the mesonotum is also an outstanding character that will make this new species easy to recognize.

The ♀ of the new species was sent to London together with a ♀ of *Z. metallica* (Mocs.) for comparison with the holotype ♀ of *Z. lewisi* Cam. Mr Robert B. Benson kindly states: »It is quite clear that *Zaraca lewisi* = *metallica* Mocs. The two specimens almost entirely agree.» *Z. metallica* Mocs. becomes accordingly a synonym of the older *lewisi* Cam., but remains as a name for the variety with white propodeum in the ♀, and with *Z. matsumurai* Tak. as a syn. of this var.

Abia berezowskii Semenov. From the Zoological Museum of the University, Berlin, I have received for naming 7 ♂♂ of an *Abia* that proved to belong to *A. berezowskii* Sem. As the ♂ of this species still remains undescribed the following notes may be useful.

The ♂ is very like the ♀, and both closely resemble *Abia sericea* L. The colour, wing pattern, and punctuation are almost the same in both species, but the surroundings of the sawsheath and the hypopygidium are pale in the Chinese species, and the antennae are entirely fulvous in the ♂, but dark brown in the ♀, only scapus and pedicellus remain fulvous. The 4th—7th tergites with large, depressed, velvety brown, tomentose spots, and the 8th tergite strongly shining, only with ill defined punctures above in the ♂. The distance between the eyes behind the ocelli more than twice as long as the diameter of an ocellus, and with very fine but sharp longitudinal middle furrow. (In *A. sericea* this distance much shorter, and equal in length to the diameter of an ocellus.) The ♀ of *A. berezowskii*, according to a ♀ from Szechuan (Kweitchu) in the author's collection, is rather difficult to distinguish from *sericea* ♀, but the following key may be helpful:

	<i>A. berezowskii</i> Sem. ♀	<i>A. sericea</i> L. ♀
Lower half of inner margins of the eyes.	Distinctly diverging downwards (as in <i>A. nitens</i> L.).	Almost parallel.
Fine longitudinal furrow between the eyes.	Distinct only in frontal half.	Deepest and sharpest near the hind margin of the head.
The shining borders along the segmental seams of tergites 4 to 7.	Anterior border broader than the posterior one. General lustre of abdomen accordingly less prominent.	Posterior border broader than the anterior one. General lustre of abdomen, therefore, brighter.
Surroundings of saw-sheath below.	Pale.	Black.

4 of the ♂♂ were labelled »Tien-tai-shan (Chekiang) 20. 4. 35. H. Höne», and the 3 remaining ♂♂ »Mittelchina, Nanking u. Kiangsi, Jettmar S. V.»

Since the above was written I have seen 5 ♂♂ and 5 ♀♀ of *A. berezowskii* belonging to Mus. Washington. Most of them originate from Szechuan (Yao-gi; Mt. Omei, and 9 miles S. W. of Tatsienlu), but also from Hangchow.

Abia melanocera Cam. The author has taken one ♂ of this species at Kambaiti, N. E. Burma, at 2000 m. altitude. The ♂ of this species has not yet been described. It fits the description of the ♀ except for the sexual characters, and it is very like the ♂ of *A. berezowskii* Sem. Some differences between the two species are given in the following key:

	<i>A. melanocera</i> Cam. ♂	<i>A. berezowskii</i> Sem. ♂
Punctuation of the 2nd and 3rd tergites.	Laterally fine and quite dense, opaque; in the middle coarser and more scattered punctures, and the ground between them shining.	Scattered with shining ground between the punctures over the entire tergite, but laterally intermingled with shining blotches.
Tergites 4—7 laterally of the tomentose area.	Entirely opaque.	Mostly with an unpunctured and shining spot near the hind lateral corners. Posterior margin with distinctly shining ground between the punctures.
Distance between the eyes.	Less than twice the diameter of an ocellus.	More than twice the diameter of an ocellus.

O. Conde makes the following statement (Korr. Naturf. Ver. Riga LXI, p. 193, 1934): »*Abia candens* Knw. Diese Form ist ohne Zweifel nur eine Var. zu *sericea* L. Grünwaldt fing . . . Die Tiere unterscheiden sich morphologisch durch nichts.» This statement is not correct. The colour is different in the two species, and likewise the punctuation of the abdomen. The distance between the eyes in the ♂ is as long as the diameter of an ocellus in *sericea*, but less than half as long in *candens*. The ♂ genitalia are also different.

Conde makes a similar incorrect statement in his »Ergänzungen zu den neotropischen Zeraeine (Notulae Ent. XVII, p. 15, 1937). He says: »Die *Pachylosticta violacea* Klg. mit schwarzen Beinen und die *Pachyl. albiventris* Klg. nec Knw mit schwarzen Beinen und bleichem Bauch sind als individuelle Farbenspielarten in die Synonymie von *tibialis* Klg. einzureihen, besonders da die Genitalien der ♂♂ auch keine Unterschiede zeigen.» Even a superficial glance at the penis of these two species show then to be strikingly different (Fig. 9), and the differences are by no means restricted only to the penis. Several ♂♂ of each species have been studied, and the variation of the penis seems to be confined to the teeth on the projection to the left, but the general form of this projection is constant. Of *P. tibialis* I have examined but a single ♂, and the penis of it is rather like that of *olivacea*, although pronounced, different (Fig. 9, C).¹ The frontal depression of this only specimen of *tibialis* is much less deep than in any of the very numerous specimens of the two other species. It is most unlikely that this character should be an individual deformation restricted to this very specimen, but even if this should be the case, I consider the characters of the ♂ genitalia together with the character of the different colour as enough evidence to regard the three forms as distinct species. The earlier entomologists based their taxonomy exclusively on colour. This is certainly incorrect, but it is also dangerous to disregard colour altogether. The colour gives sometimes hints for separating closely related species. In forms with constant differences of colour, these are mostly combined with differences in sculpture or in the genitalia.

Conde has in recent years suppressed a great number of species as synonyms. In many cases this has, probably, been right, but it seems as if his desire to »simplify» the taxonomy has some-

¹ All the drawings in this paper (except Fig. 5) are prepared with the help of an »Edinger Zeichen-Projektionsapparat» from Winkel-Zeiss, Göttingen. In this apparatus an actual picture of the object from a slide is thrown directly on the drawing-paper, and the pencil follows the outlines of the projected image. This method guarantees a most exact reproduction with every detail accurately in its proper place.

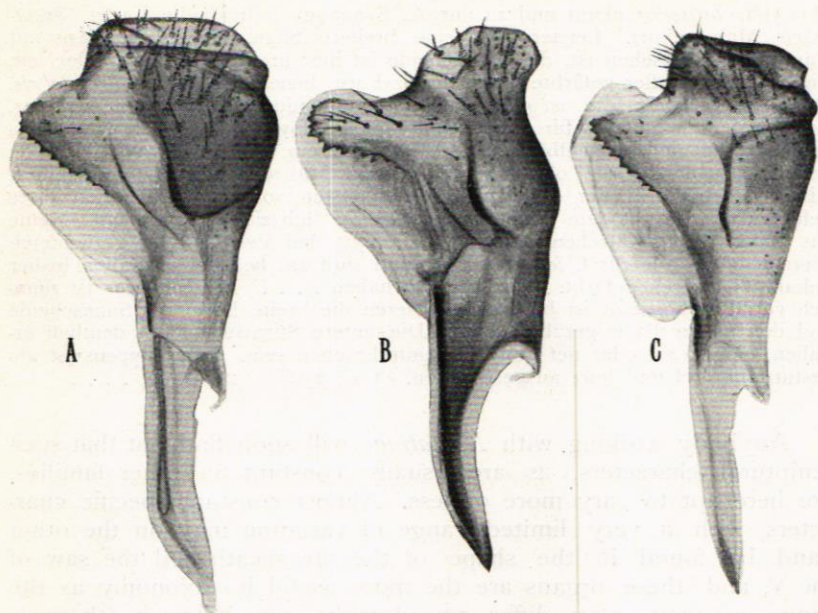


Fig. 9. Penis of: A) *Pachylosticta violacea* Kl. B) *Pachylosticta albiventris* Kl.
C) *Pachylosticta tibialis* Kl.

times carried him too far. In most cases he simply makes a statement that two species are synonymous, but now and then he strengthens this action by a justification. I will now cite his arguments regarding some insects described by myself. They are not chosen because of a wish to save these species of my own, but because the material is known to me, and the stereotype-plate of the drawings is still available. Conde says in his »Ostbaltischen Tenthredinoidea IV», p. 17 (Notulae Ent. XVIII, 1938):

*423. *sauvis* Ruthe forma *latiserra* Malaise. MALAISE stellte für diese Art die Gattung *Pontoprastia* auf. Letztere ist unhaltbar, worauf schon Benson hingewiesen hat, weil sie nur auf der für einen *Amauronematus* eigentümlichen Sägescheideform der ♀♀ basiert.¹ *A. sauvis* Ruthe weist im weiblichen Geschlecht zwei Formen auf, — eine, bei der die Säge nur im apicalen Drittel mit Randzähnen versehen ist und die eine schmalere Sägescheide besitzt (MALAISE, Entom. Tidskr. pg. 13, Fig. 42, 44, 1921), und eine andere Form, die

¹ I regret the erection of the genus *Pontoprastia*, as it is better to avoid genera based on characters only valid for one sex, but, at the same time, it is not practical to reject all such genera on principle, as in several branches of Zoology no other characters are available for classification; for example, in the *Hydracharinae*, the genera, subgenera as well as species have to be based mostly on the secondary sexual characters of the ♂♂.

MALAISE *latiserra* nennt und zu der als Synonym (individuelle Variet.) *brevilabris* Mal. gehört. Letztere hat eine breitere Säge, die bis zur Basis mit Randzähnen versehen ist, die Sägescheide ist hier breiter und kürzer (loc. cit. Fig. 45, 46). Heller gefärbte Tiere dieser Form benennt MALAISE *brevilabris*. *Pontopr. lapponica* Mal. ist eine belanglose, individuelle Abweichung der var. *fusca* Mal. Ich halte es für unnütz, individuelle Abweichungen mit Namen zu belegen, und ziehe deshalb *fusca* und *lapponica* ein, ebenso *romani* Mal., von der nicht zu ersehen ist, ob sie zur f. *latiserra* Mal. oder zur Stammf. gehört. Eine Zwischenform der hellsten und dunkelsten von mir gesüchteten Tiere belegt MALAISE mit dem Namen *kamtschatica*. Ich ziehe letztere ein. Meine aus *Salix repens*-Kätzchen vom V.—VI. 1925 bei Vecāki, Riga gezüchteten Tiere gehören alle zur f. *latiserra* Mal. und sind am hellsten von allen bisher bekannten Tieren gefärbt. Die hellsten haben . . . Die Skulptur ist ziemlich variabel, konstant ist bei meinen Tieren die breite Form der Sägescheide und die bis zur Basis gezähnte Säge. Die untere Stirnwulst kann deutlich erhaben, eingekerbt oder tief und breit unterbrochen sein. Der Klypeus ist abgestutzt bis tief und kurz ausgeschnitten. 1 ♂, 23 ♀♀. 1 ♀ Riga, . . . »

Anybody working with *Nematinae* will soon find out that such sculptural characters, as are usually constant in other families, are here apt to vary more or less. Almost constant specific characters with a very limited range of variation may on the other hand be found in the shape of the saw-sheath and the saw of the ♀, and these organs are the more useful in taxonomy as the shape of them may differ considerably even between otherwise closely related species. This constancy of the saw and the saw-sheath cannot have escaped the notice of Conde, as he himself, when illustrating descriptions of new species, first and foremost gives drawings of the two organs. In discussing my different species of *Pontopristia*, that are all mainly founded on the different shape of the saw-sheath and the saw (Fig. 10), he characterizes them all as colour forms of a single species. To overcome the differences in the shape of the saws and the saw-sheaths he declares my *latiserra* to be a second form (sic!) of *suavis*, but he must admit that all the 25 specimens of *Pontopristia* he has reared had the same type of saw and saw-sheath as my *latiserra*. Despite the fact that insects reared from larvae are more inclined to variations and even deformations than such as are taken on the wing. All the species of *Pontopristia* described by me are based on several specimens, and only *romani* and *itelmena* on 2 ♀♀ each. The var. *fusca* is, according to the original description, based on 2 ♂♂, 7 ♀♀ and *lapponica* on 2 ♂♂, 8 ♀♀; three of the latter ♀♀ with a somewhat different sculpture of the head. When certain characters hold good for so many specimens it seems rather inapplicable to speak of »individual aberrations».

In order to promote the taxonomy of the *Nematinae* I lent most of my type material some years ago to Robert B. Benson, who intended to monograph this group. On receiving the news

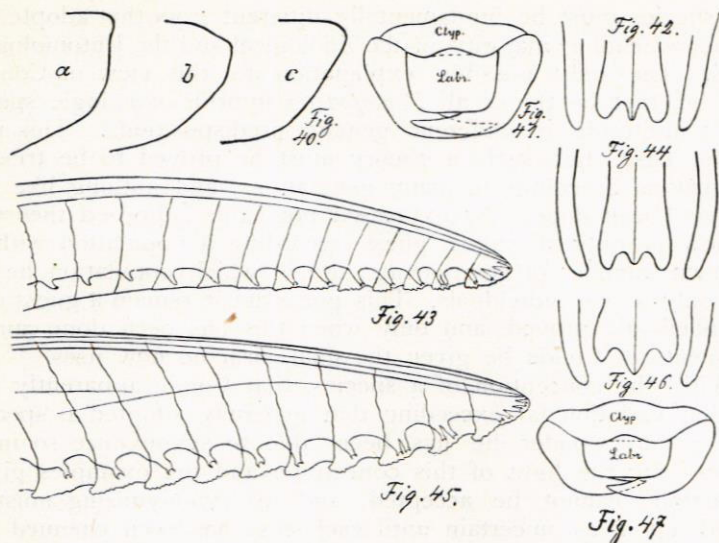


Fig. 40—47. 40) Sägescheide von drei einander verwandten *Lygeonematus*-Arten: a) *L. coatulus* RUTHE, b) *L. pallipes* FALL., c) *L. boreus* KNW. 41) *Pontoprístia* (n. g.) *suavis* RUTHE var. *fusca* n. var. Clypeus und Oberlippe. 42) *Pontoprístia suavis* v. *fusca*. Sägescheide. 43) *Pontoprístia suavis* v. *fusca*. Säge. 44) *Pontoprístia lapponica* n. sp. Sägescheide von oben. 45) *Pontoprístia latiserra* n. sp. Säge. 46) *Pontoprístia Romani* n. sp. Sägescheide von oben. 47) *Pontoprístia brevilabris* n. sp.

Fig. 10. These are the original illustrations and explanations to the descriptions of my new species of *Pontoprístia* in Ent. Tidskrift 1921.

that Conde had already started a similar work, Benson gave up his plans and the loan was by him transferred to Conde, who still keeps my types. The types of *romani* belong to the Swedish Museum of Natural History and Conde has not seen any specimen of *romani*, but nevertheless this species is also suppressed as a synonym by him without further explanation notwithstanding the extraordinary shape of the saw-sheath (Fig. 10, 46). The *P. kamtschatica* is simply declared as an intermediate colour form of his specimens reared several years later. That the saw-sheath of *kamtschatica* is shorter than broad at the apex makes no difference to him.

That *P. lapponica* could possibly be a var. of *suavis* is already admitted in the original description, but the different shape of the saw, saw-sheath, and labrum, not to mention the possibly variable colour and sculpture of the head, makes the different *Pontoprístia* very improbable as forms of a single species. Conde's conception

of a species must be fundamentally different from that adopted by the overwhelming majority of the Zoological and the Entomological world. The only possibly explanation to this view of Conde's must be, that he thinks all *Pontoprastia* hybrids of a single species with a multitude of different genetic predispositions. This may be the case, but such a theory must be proved to be true by systematical breedings in many generations, and nothing like that has yet been done. As expressed now, this supposed theory of Conde's is only a vague guess regarding a population with an unknown number of components and of which population he has seen only a few individuals. This guess must remain a guess until controlled and proved, and only when this has been done can the statements of Conde be given the final form he now uses.

With the conception of a species, that Conde apparently has, allowing variation far exceeding that generally adopted as specific, there is no wonder he has been able to synonymize so many species. In the light of this conception and the examples given, his actions cannot be accepted, and his synonymizing must be looked upon as uncertain until each case has been chequed and either confirmed or rejected by some other entomologist.

Parasyzygonia pallidior n. sp. Head, scapus, pedicellus, entire thorax, first abdominal tergite, $2\frac{1}{2}$ basal sternites, and all legs reddish. Flagellum, a minute spot between the ocelli, apical $\frac{3}{5}$ th of all tibiae, all tarsi entirely, and most of the abdomen black; the dark parts of the abdomen with strong metallic blue tinge. Wings at the apex slightly smokey, towards the base and along the veins infuscated with blackish-brown and with strong metallic blue tinge, thus strongly contrasting with the semi-diaphanous apex. Sculpture and general appearance very like *P. cyanoptera* Klug, but in this latter species the following differences may be noted: antennae entirely black, likewise the abdomen, metathorax including most of the scutellum, and the legs entirely; ocellar spot wanting. The strongly infuscated parts of the wings alike in both species, but in *cyanoptera* the paler parts of the wings are very much darker and accordingly noticeable as paler only on a closer investigation as the whole wing otherwise appears to be black and not transparent. Length of the 3rd and the 4th antennal joints as 4:5 in the new species, but as 3:2 in *cyanoptera*. Maxillar palpi more slender in *pallidior*, viz. the 4th joint from the apex 4—5 times longer than thick, but only 2—3 times as long in *cyanoptera*. Length ♀ 16 mm. (1 ♀; type in the author's collection).

Brasil, S:ta Catharina, Hansa Humbolt, Leg. Anton Maller, 1935.

Enslinia holmbergi Jörgensen. Some years ago the author got a ♀ of this species from Nova Teutonia, S:ta Catharina, Brazil, leg. F. Plaumann. Previously this species was only known in the holotype ♀ from Argentina, Misiones (Mt. Bonpland).

The monobasic genus *Enslinia* Jörg. was suppressed as a synonym of the older *Pseudabia* Schrottky by O. Conde (Rev. de Ent., S. Paulo, Vol. II, p. 438, 1932). This action of Conde was apparently undertaken without having seen any specimen of either Jörgensen's or of Schrottky's species, but was based on characters taken from a third species. As the description of Schrottky is rather incomplete, there is a slight chance that after all Conde may be right in synonymizing the two genera, but until a specimen of *Pseudabia fusca* Schrottky can be studied, the two genera had better be kept distinct. (All the types of Schrottky have been destroyed in a civil war). Conde is on the other hand quite correct in not paying any attention to the direction of the second recurrent vein, which vein is not constant. The most striking character of *Enslinia holmbergi* is found in the venation of the hind wings. The longitudinal vein separating the two closed middle cells (the media or cubitus) is for the better part of its length obliterated, and only a remnant of it is seen as a short stump at the distal end; the two middle cells are accordingly broadly communicating. This character looks as a deformation, but it is mentioned by Jörgensen and it is clearly noticeable on both wings in his drawing. My specimen has also exactly the same venation of the middle cells. Such a special character as this, alike in both hind wings in two specimens from different localities, is almost certainly not a deformation, but is most probably a constant character.

In the picture of the wings of *Pseudabia clypealba* Conde, the two middle cells are distinctly separated. This must actually be so, because a supposed deformation would have been mentioned by Conde as he has done with the obliterated radial cross-vein in the illustrated right wing. The venation of the hind wings are not mentioned by Schrottky, and for his species this question remains open.

The three species *fusca* Schr., *holmbergi* Jörg., and *clypealba* Conde have, according to the descriptions rather similar sculptural characters. My specimen of *holmbergi* differs from the description of *fusca* Schr. in the following points:

	<i>holmbergi</i> Jörg.	<i>fusca</i> Schrottky
Length of 4th antennal joint.	As 1st and 2nd joints combined.	1st and 4th joints equally long.
Head behind the eyes.	Somewhat narrowing.	Somewhat enlarged.
Punctuation of mesonotum compared to that of the scutellum.	Mesonotum denser.	Scutellum denser.
Saw-sheath.	Not short, narrow, and acute when seen from above.	Truncate and only little protruding.

The *P. clypealba* Conde has: the 1st and 4th antennal joints equally long, the malar space is rather long, the saw-sheath is short, thick, and rounded at the apex when seen from above, and the sculpture of the frontal area is different from that of *holmbergi*; the malar space of this latter species is quite linear. The differences between these two species are in my opinion enough to let them remain for the present in different genera.

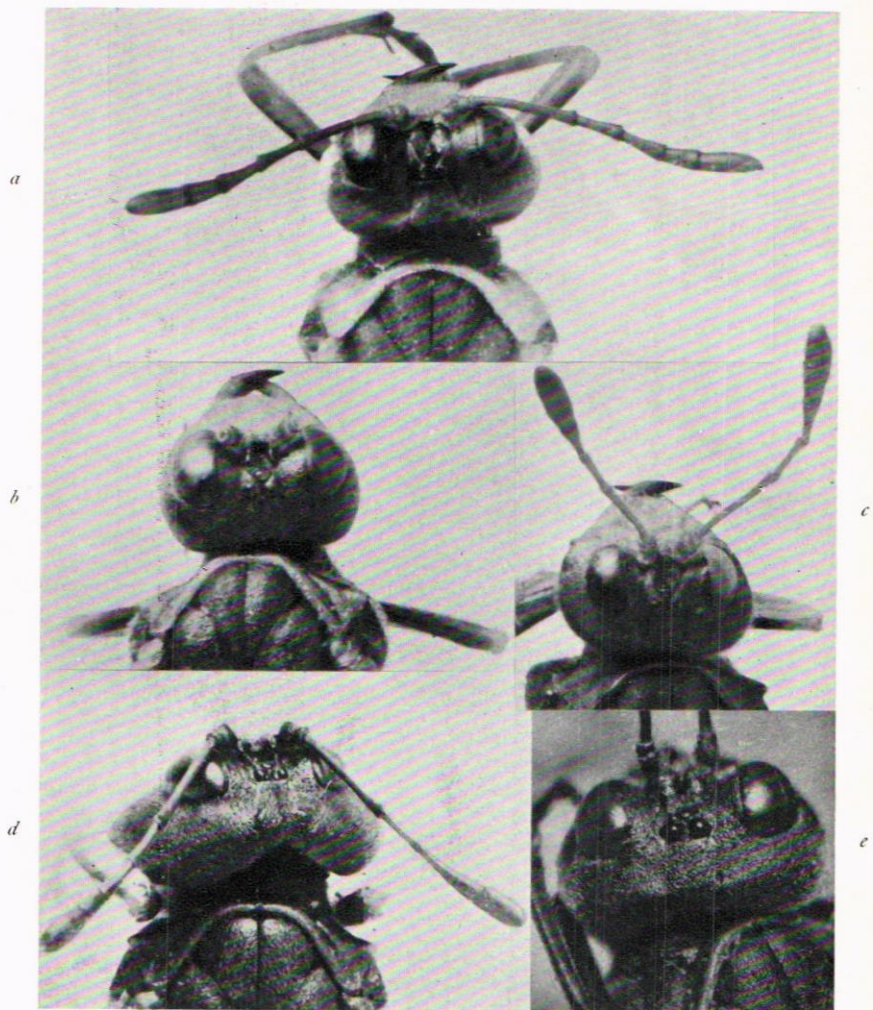
***Pachylosticta plaumanni* n. sp.** Fulvous with paler legs; black are: head with the antennae, the entire mesonotum except the deflexed parts of the lateral lobes, a minute dot lateral of each cenchri, and all the tarsi except the basal $\frac{2}{3}$ rd of the metatarsi. The 4 basal abdominal segments fulvous; the apical rest of the abdomen black with strong bluish tinge. Wings rather strongly infuscated and more blackish towards the base and along the costal margin of the front wings (somewhat as in *P. albiventris* Kl., but without the clear spot in the second discoidal cell of the ♀). Strongly shining; head and thorax with minute scattered punctures except on the mesopleura and lateral of the postocellar area. Antennae and sculpture of the head as in *albiventris*, but the lateral furrows are not depressed at all and at a level with the temples, the postocellar area being elevated only in the centre. The hind basitarsus hardly longer than the following 3 tarsal joints combined (almost $1\frac{1}{2}$ times longer in *albiventris* and *apicalis* Westw.). The postscutellum is not flattened as in *albiventris*. Length ♀ 15 mm. (1 ♀; type in the author's collection).

Brasil, S:ta Cathar., Nova Teutonia, 15. 9. 38. Leg. F. Plaumann.

The new species is similar in colour only to *P. apicalis* Westw. which has the thorax entirely fulvous, the wings infuscated only at the apex, and the sub-apical tooth of the claws longer than the apical one (shorter in all other species). In the genus *Pachylosticta* Klug the ♀♀ seem to have longer sub-apical tooth of the claws than the ♂♂.



Leptocimbex formosana (ENSLIN) Holotype ♀.



a) *Leptocimbex gracilentus* (MOCS.) ♂. b) *Leptocimbex tuberculata* n. sp. ♀.
 c) *Leptocimbex ariana* (KIRBY) ♀. d) *Leptocimbex potanini* SEM. ♂ (from Suchan).
 e) *Leptocimbex potanini* var. *marginata* (TURNER) ♀.