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Review of the "*Calycina* group of genera" (Coleoptera: Mordellidae: Mordellini)

Přehled rodů „skupiny *Calycina*" (Coleoptera: Mordellidae: Mordellini)

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Taxonomy, Coleoptera, Mordellidae, new synonymies, new combinations, new name, keys, Afrotropical region, Oriental region, Neotropical region

Abstract. Generic classification of the "*Calycina* group of genera" is defined and all species belonging to this group are listed. Among the names of the genus group following new synonymies are proposed: *Phungia* Pic, 1922 = *Calycellina* Pic 1932 syn. n., *Dollmania* Franciscolo, 1961 syn. n. and *Macrotomoxia* Pic, 1922 = *Higehananomia* Kôno, 1935 syn. n. New combinations are proposed: *Phungia scraptiiformis* (Franciscolo, 1961), *P. trotommoides* (Franciscolo, 1962) (from *Dollmania*); *P. borneensis* (Blair, 1922), *P. sudanensis* (Ermisch, 1968) and *P. rufa* (Pic, 1932) (from *Calycina*); *Macrotomoxia gardneri* (Blair, 1931) (from *Higehananomia*) and *Paraphungia tarsalis* (Blair, 1922) (from *Calycina* Blair, 1922 [= *Calycella* Blair, 1922 non Allmann, 1864]). New name *Phungia pici* nom. n. is proposed for *Phungia rufa* (Pic, 1932) non Pic, 1922. New synonymies *Macrotomoxia castanea* Pic, 1922 = *Higehananomia palpalis* Kôno, 1935, *Calycina guineensis* (Blair, 1922) = C. *impressa* Pic, 1931 and *Paraphungia tarsalis* (Blair, 1922) = P. *laosensis* Ermisch, 1968 syn. n. are proposed. *Phungia rufa* Pic, 1922, *P. pici* nom. n., *Macrotomoxia castanea* Pic, 1922 and *Calycina guineensis* (Blair, 1922) are redescribed. Keys to all genera of the "*Calycina* group" and to all species of *Calycina* are provided.

INTRODUCTION

Thanks to the possibility to examine the type species of the genera described by Pic (1922, 1931, 1932) and Blair (1915, 1922a,b), I am able to revise the systematics of the "*Calycina* group of genera" as defined by Franciscolo (1965). Some mistakes in the systematics of the group resulted from the fact that the type material of Pic was not examined by preceding authors. Therefore the genus *Phungia* Pic, 1922 was wrongly placed among the relatives of *Cothurus* Champion, 1891 by Ermisch (1949) and consequently repeatedly described under the name *Dollmania* by Franciscolo (1961). Similarly, the (insufficiently described) genus *Macrotomoxia* Pic, 1922 was again described under the name *Higehananomia* by Kôno (1935) and later also misinterpreted by Ermisch (1949). Pic (1932) himself described a species apparently belonging to his own genus *Phungia* as member of *Calycina* Blair, 1922 and, moreover, proposed for it the new subgenus *Calycellina* Pic, 1932. Among the species of *Calycina* was given a new species (C. *borneensis*) of the genus *Phungia* by Blair (1922a), suggesting that Blair did not yet distinguish the two genera in that time. New material from Malaysia, containing both sexes of *Calycina tarsalis* Blair, 1922 reveals that the species in fact belongs to the genus *Paraphungia* and that *P. laosensis* Ermisch, 1968 is its junior synonym.

The chief aim of this paper is to correct all former mistakes in the generic classification of this group of genera and to contribute also to classification of some species. The systematics of the Afrotropical species of *Phungia* remains partly unsolved, because some of them are known only in females and no additional material is available at present. It results from the revision of types

that the whole "*Calycina* group" is probably not homogeneous, being characterized only by the singularly developed palpi within the tribe Mordellini. However, analogous form of palpi can be found also in the genera *Glipodes* Leconte, 1862 (Conaliini) and *Calyce* Champion, 1891 (Mordellistenini).

ACRONYMS

CHP - collection J. Horák, Praha
NHML - The Natural History Museum, London
MNHN - Muséum national d'Histoire naturelle, Paris
NMP - National Museum, Praha
SMTD - Staatliches Museum für Tierkunde, Dresden

SYSTEMATICS

Key to the genera of *Calycina* group

1 (2) Metatibiae and metatarsomeres with distinct dorsal ridges (Figs 8, 20). Eyes very large, not extended on ventral surface of head. Temples narrow, but distinct, rather parallel. Short and stout species (Figs 1, 5, 16) with uniform red-brown colouration. Parameres asymmetrical (Figs 3, 13). Afrotropical and Oriental regions. ..... *Phungia* Pic
2 (1) Metatibiae and metatarsomeres without dorsal ridges (Fig. 52), at most seldom with dorsal granules. Parameres symmetrical (Figs 23, 36, 42, 57).
3 (4) Eyes very large, extended on ventral surface of head. Temples rather broad and cuneiform. Large to very large (females) species with uniform brown colouration. Oriental region. ..... *Macrotomoxia* Pic
4 (3) Eyes very small (Fig. 32), not reaching ventral surface of head. Temples extremely dilated.
5 (6) Middle-sized to very large species (6.0-16.2 mm). Protarsomeres in males not dilated, at most as wide as protibiae (Figs 35, 40, 47, 51). Elytra gradually narrowing towards apex, completely concealing abdominal segments laterally (Figs 27, 31, 38, 45, 48). Circumtropical. ..... *Calycina* Blair
6 (5) Small species (3.9-9.5 mm). Protarsomeres extremely dilated in males, distinctly wider than protibiae (Fig. 56). Elytra strongly narrowed posteriorly behind humeri, leaving abdominal segments exposed laterally (Fig. 53). Oriental region. ..... *Paraphungia* Ermisch

Phungia Pic, 1922

Phungia Pic, 1922b: 17. Type species: *Phungia rufa* Pic, 1922 (by monotypy).
Calycellina Pic, 1932: 30 (subgenus of *Calycina*), **syn. n.** Type species: *Calycina* (*Calycellina*) *rufa* Pic, 1932 (by monotypy).
Dollmania Franciscolo, 1961: 15-17, **syn. n.** Type species: *Dollmania scraptiiformis* Franciscolo, 1961 (by original designation).

Included species. *P. borneensis* (Blair, 1922); *P. camerunensis* Ermisch, 1950; *P. pici* nom. n. (= *P. rufa* (Pic, 1932), non Pic, 1922); *P. rufa* Pic, 1922; *P. scraptiiformis* (Franciscolo, 1961); *P. sudanensis* (Ermisch, 1968); *P. trotommoides* (Franciscolo, 1962).
Geographic distribution. Tropical zone of Africa and southeastern Asia.
Comments. Comparatively small, short and lightly red-brown species are at the first sight very similar to the genus *Micropelecotomoides* Pic, 1910 (*Rhipiphoridae*). Dorsal surface smooth and covered with hairs oriented in the same direction as in *Macrotomoxia*. Terminal maxillary palpomere in male with two tentacular processes, of which only the outer one is extremely long (Fig. 9); in female with a dish-shaped concavity, moderately shifted on dorsal surface (Figs 7, 17). Eyes very large (Fig. 6), circular, roughly facetted, pubescent, not extended on ventral surface of

head. Temples very narrow, parallel. Metatibia with one apical and one dorsal ridge, the first metatarsomere with one dorsal ridge (Figs 8, 20). Parameres asymmetrical (Figs 3, 13). Morphologically very homogeneous genus.

Phungia scraptiiformis (Franciscolo, 1961), comb. n.

Dollmania scraptiiformis Franciscolo, 1961: 17-18.

Geographic distribution. Angola.
Comments. The proposed transfer is based on the same characters as in *P. trotommoides* (Franciscolo, 1962) (see below). Narrow and parallel-sided body differs at the first sight from all Afrotropical species except for *P. camerunensis*. Like the similarly parallel-sided *P. borneensis*, *P. scraptiiformis* has dorsal ridge developed only on the first metatarsomere and differs from the former species by the shape of male genitalia, pronotum and terminal maxillary palpomere.

Phungia camerunensis Ermisch, 1950

Phungia camerunensis Ermisch, 1950: 49-51.

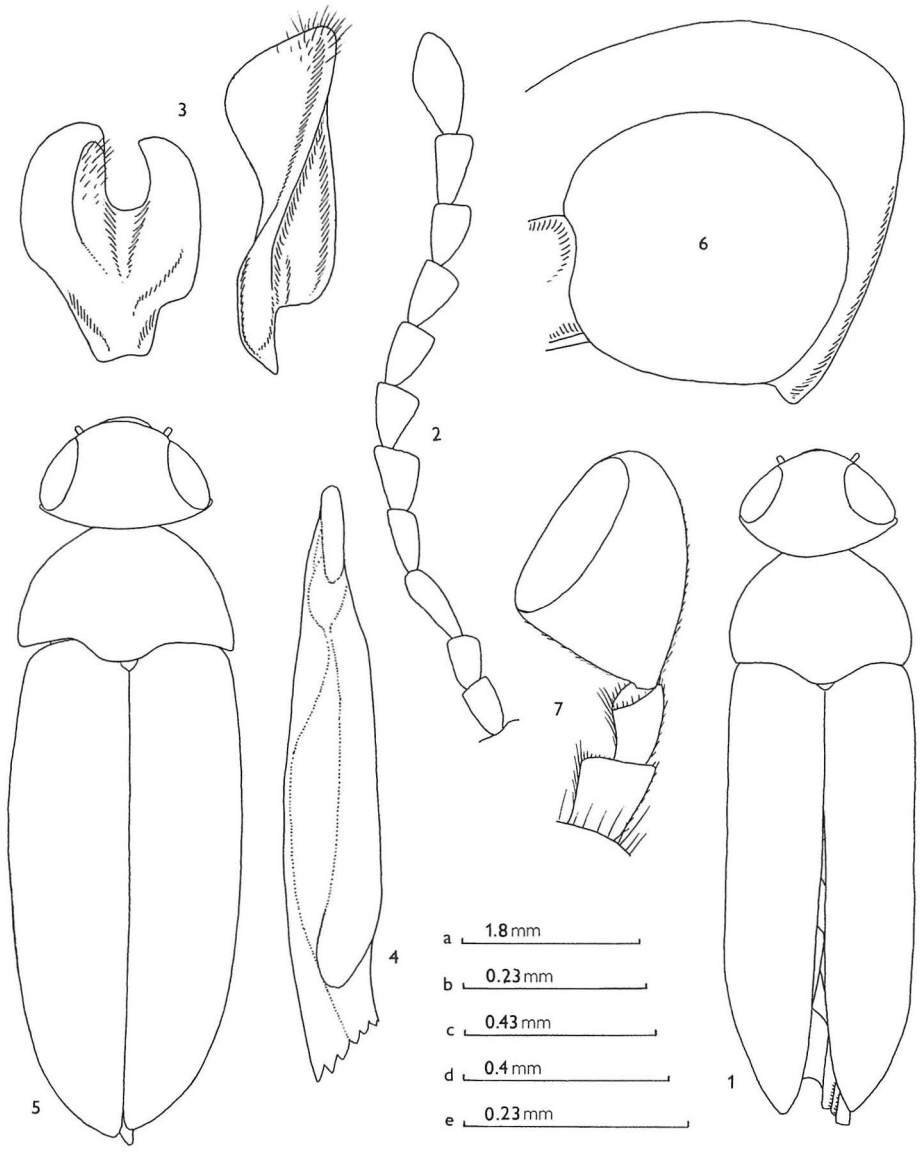
Geographic distribution. Cameroon, Congo.
Comments. Body parallel-sided as in *P. scraptiiformis* and *P. borneensis*. Dorsal ridge developed on metatibia and on the first metatarsomere. Body as in both above species uniformly chestnut brown. Following the shape of maxillary palpi described by Ermisch (1950), only females are known. The systematic position of this species can be thus resolved only in future, when the males of this and other related species are known.

Phungia borneensis (Blair, 1922), **comb. n.**
(Figs 1-4)

Calycella borneensis Blair, 1922a: 224-225.
Calycina borneensis: Blair, 1922b: 250; Ermisch, 1950: 71.

Geographic distribution. Borneo.
Material examined. Lectotype by present designation, male (NHML), Sarawak, Matang, 32 miles [of Kuching], 29.5.1909, J. E. A. Lewis, 1910 - 116, bearing red label "Type" and other label "*Calycella borneensis* Blair, Type". Further specimen (female, see Blair (1922a) not seen.
Comments. This species belongs to the genus *Phungia* due to its large and rather coarsely facetted eyes, long and narrow temples and the dorsal ridges developed on both metatibia and the first metatarsomere. Body rather small (7 mm), colouration completely brown with golden yellow pubescence.

It differs from the only other known Oriental species, *P. rufa*, very distinctly by its narrow and very parallel-sided body (Fig. 1), by the dorsal ridge developed only on the first metarsomeres (in *P. rufa* on first and second metatarsomeres), by the shape of terminal maxillary palpomere of male with two extremely prolonged tentacular processes (only one in *P. rufa*) and by the shape of male genitalia (Figs 3, 4).



Figs 1-7. 1-4: *Phungia borneensis* (Blair), lectotype, male: 1 - habitus; 2 - antenna; 3 - paramere; 4 - apex of penis. 5-7: *Phungia rufa* Pic, lectotype, female: 5 - habitus; 6 - eye and temporal fringe with margin of head; 7 - maxillary palpus. Scale: a - 1, 5; b - 3, 4; c - 6; d - 7; e - 2.

Obr. 1-7. 1-4: *Phungia borneensis* (Blair), lectotypus, samec: 1 - postava; 2 - tykadlo; 3 - paramery; 4 - špice penisu. 5-7: *Phungia rufa* Pic, lectotypus, samice: 5 - postava; 6 - oko a spánkový lem s okrajem hlavy; 7 - čelistní makadlo. Měřítko: a - 1, 5; b - 3, 4; c - 6; d - 7; e - 2.

Phungia rufa Pic, 1922
(Figs 4-15)

Phungia rufa Pic, 1922b: 18.

Geographic distribution. North Vietnam.

Material examined. Lectotype by present designation, female (MNHN), Tonkin, Lac Pho, bearing red label "Type" and a hand-written label "*Phungia* n. gen., *rufa* Pic".

Paralectotypes: 1 female (MNHN), Tonkin, Hoa Binh, labelled "*Mordellistena* sp. (desiré)" and "*Phungia* Pic"; 1 female (MHNP) [damaged by *Anthrenus*], Tonkin, Hoa Binh.

Further material: 1 male (CHP), Vietnam, Ha Son Binh prov., Hoa Binh, 4.-7.v.1986, J. Horák leg.; 1 male (CHP), Vietnam-N, 180 km SSW Hanoi, 40 km SW Than Hoa, Ben En Nat. Park, h = 50 m, 23.vii.-20.viii.1997, A. Napolov leg.

Redescription, male. Red-brown, only terminal maxillary palpomere black-brown. Completely covered with golden yellow pubescence. Body rather short, stout and rather convex.

Head strongly convex, width to length as 9 : 7. Eyes large, almost globular, emarginate at insertions of antennae, rather coarsely facetted and pubescent, reaching almost to posterior margin of head; narrow temporal border present (Fig. 6). First and second maxillary palpomere of subequal width, second one by half wider than long, terminal palpomere at base with two processes: very long outer one and median one, which is divided in two parts of unequal length, terminated with dilated clubs; terminal palpomere proper bean-shaped, very flat (Fig. 9). Antennae (Fig. 10) rather long, thin, serrate.

Pronotum broadly and flatly convex, width to length as 11 : 7, semicircular. Basal margin straight, posterior lobe rather small, almost semicircular. Sides convex in lateral view; posterior angles comparatively obtuse, very broadly rounded. Scutellum small, triangular.

Elytra convex, strongly rounded laterally, 2.1 times as long as their combined width, simultaneously rounded at apex, with rather dense, coarse, rasp-like punctures.

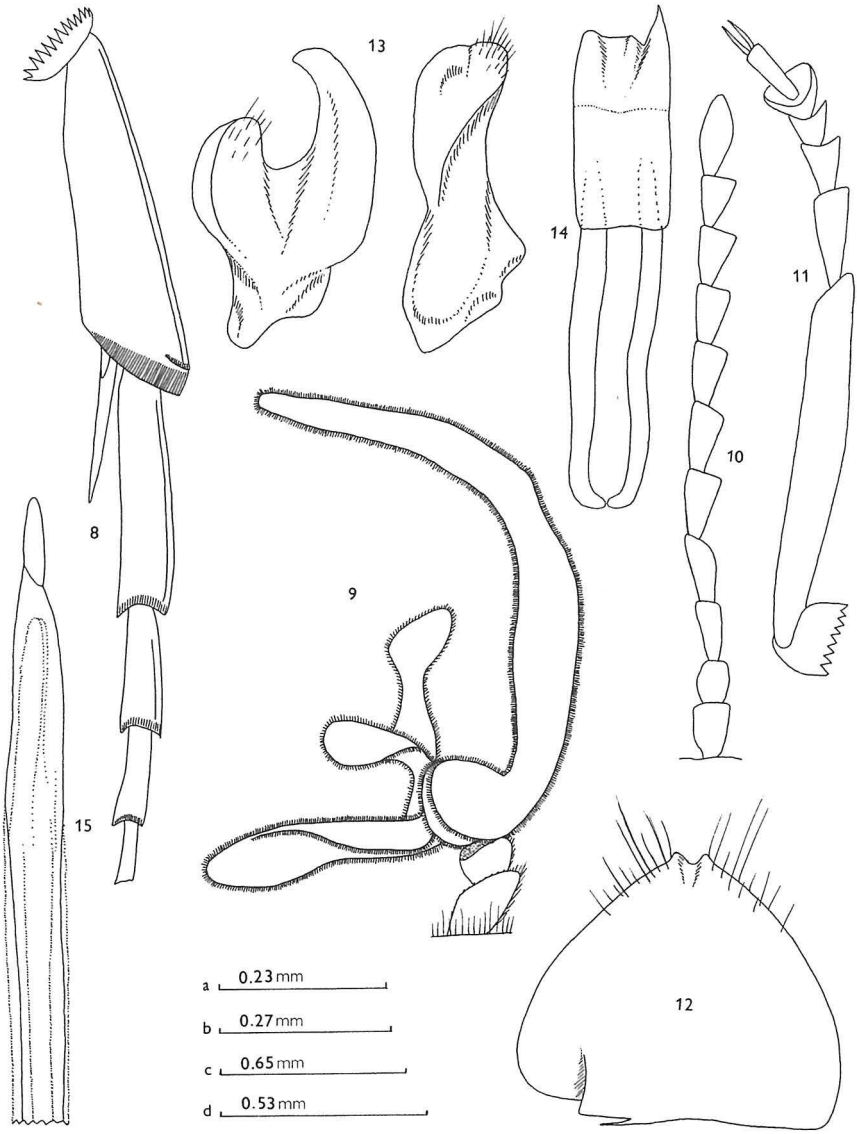
Pygidium very short, almost twice as long as hypopygium, only very little exceeding elytra, broadly conical, flat, with feebly prolonged acute apex.

Protibiae straight, not dilated, without longer hairs on inner side (Fig. 11). Protarsi much shorter than protibiae, tarsomeres 1 to 4 becoming gradually wider, tarsomere 4 deeply bilobed with rounded onychium. Mesotarsi shorter than mesotibiae. Metatibiae (Fig. 8) with short apical ridge parallel to their apical margin and with one dorsal ridge all along the length of tibia. First and second metatarsomere with a distinct dorsal ridge reaching slightly over the midlength of the relevant tarsomere. Further metatarsomeres without ridges. Outer terminal thorn of hind tibia reaching one third of the length of the inner one.

Male genitalia as figured (Figs 12-15).

Length from mandibular to elytral apices 6.6-7.4 mm, to the apex of pygidium 7.1-7.5 mm.

Female. Terminal maxillary palpomere broadly triangular with deeply impressed outer side, impression oval in lateral view (Fig. 7). Antennae as in male. Body more strongly rounded laterally (Fig. 5).



Figs 8-15. *Phungia rufa* Pic. 8: lectotype, female - metatibia and metatarsus. 9-15: male, Vietnam: 9 - maxillary palpus; 10 - antenna; 11 - protibia and protarsus; 12 - 8. internal sternite; 13 - paramere; 14 - phallobasis; 15 - apex of penis. Scale: a - 13-15; b - 9, 12; c - 8; d - 10, 11.

Obr. 8-15. *Phungia rufa* Pic 8: lectotypus, samice: - zadní holeň a chodidlo. 9-15: samec, Vietnam: 9 - čelistní makadlo; 10 - tykadlo; 11 - přední holeň a chodidlo; 12 - 8. vnitřní sternit; 13 - paramery; 14 - phallobase; 15 - špice penisu. Měřítko: a - 13-15; b - 9, 12; c - 8; d - 10, 11.

Phungia sudanensis (Ermisch, 1968), **comb. n.**

Calycina sudanensis Ermisch, 1968: 224-225.

Geographic distribution. Sudan.
Comments. The transfer to *Phungia* is based on the very large, coarsely facetted and pubescent eyes as well as on the presence of the dorsal ridges on metatibiae. The information on their eventual occurence on metatarsomeres is missing in original description. *P. sudanensis* differs from all other Afrotropical species of *Phungia* by its black head (red-brown, concolorous with the rest of body in remaining species).

Phungia trotommoides (Franciscolo, 1962), **comb. n.**

Dollmania trotommoides Franciscolo, 1962: 98-101.

Geographic distribution. North Rhodesia (now Zambia).
Comments. This species belongs to *Phungia* due to the missing temples developed only as a narrow rim, the distinct dorsal ridges on metatibiae and metatarsomeres, the shape of terminal maxillary palpomere (with one extremely long tentacular process), the shape of parameres etc.

P. trotommoides resembles *P. pici*, *P. sudanensis* and *P. camerunensis* by its rounded body but differs from them by the dorsal ridges being developed on three basal metatarsomeres, from *P. sudanensis* moreover by its red-brown head.

Phungia pici **nom. n.**
(Figs 16-20)

Calycina (*Calycellina*) *rufa* Pic, 1932: 30-31.
Phungia rufa Pic, 1932: 30-31, non Pic, 1922b: 18, **comb. n.**

Geographic distribution. Gulf of Guinea.
Material examined. Holotype (by monotypy), female (MNHN), Sierra Leone, Njala, 10. 5. 1928, E. Hargreave, labelled as "Type" (red label) of *Calycina* sbg. *Calicellina rufa* n. sp., subsequently labelled as holotype by myself.
Further material: 1 female (MNHN), Senegal, Dakar, labelled as "*Mordellistena mogadiscioana* Pic".
Redescription, female. Body colouration red-brown with golden brown pubescence (Fig. 16), rather short, rounded and rather convex.

Head strongly convex, width to length as 9 : 7. Eyes very large, almost circular, emarginate at insertions of antennae, rather coarsely facetted and pubescent. Temples distinct only as a very narrow rim. Maxillary palpi as figured (Fig. 17). Antennae rather long, serrate (Fig. 18).

Pronotum convex, width to length as 11.3 : 7, semicircular, without collar-shaped prolongation anteriorly. Basal margin straight with little projecting median lobe. Sides in lateral view straight; posterior angles obtuse, broadly rounded. Scutellum small, subtriangular with rounded apex.

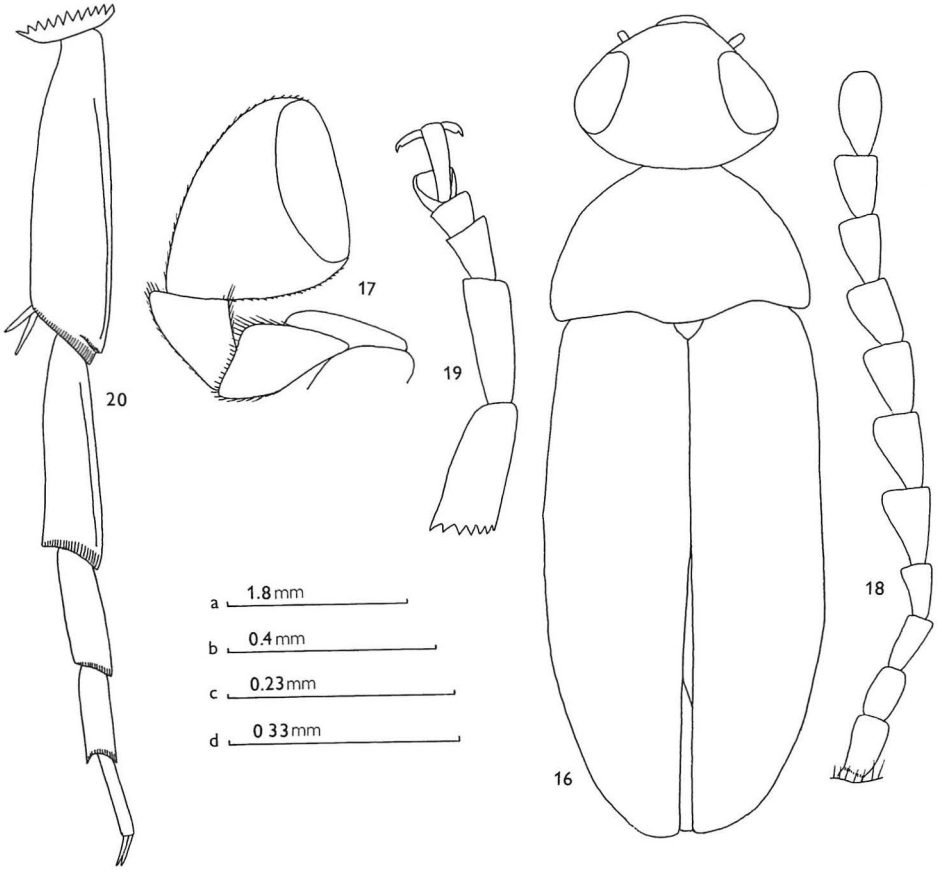
Elytra convex, strongly rounded laterally, 1.7 times as long as their combined width, simultaneously rounded at apex, punctures dense, finely rasp-like.

Pygidium very short, twice as long as hypopygium. All abdominal segments short, so that pygidium does not exceed the tips of elytra.

Protibiae longer than protarsi, first tarsomere by one third longer than the second, fourth one square, deeply bilobed, with moderately rounded onychium ventrally, terminal tarsomere twice as long as the fourth one (Fig. 19). Mesotibiae longer than mesotarsi. Metatibia with one short apical and one distinct dorsal ridge. First metatarsomere with dorsal ridge, following tarsomeres smooth (Fig. 20). Outer apical thorn of metatibia reaching one half of the length of the inner one.

Length from mandibular to elytral apices 6.3 mm.

Male unknown.



Figs 16-20. *Phungia pici* nom. n., holotype, female: 16 - habitus; 17 - maxillary palpus; 18 - antenna; 19 - protarsus; 20 - metatibia and metatarsus. Scale: a - 16; b - 17; c - 18, 19; d - 20.

Obr. 16-20. *Phungia pici* nom. n., holotypus, samice: 16 - postava; 17 - čelistní makadlo; 18 - tykadlo; 19 - přední chodidlo; 20 - zadní holeň a chodidlo. Měřítko: a - 16; b - 17; c - 18, 19; d - 20.

Differential diagnosis. *P. pici* differs from the Asian *P. rufa* by the more strongly serrate antennae and by the dorsal ridge developed only on the first metatarsomere (in *P. rufa* on first and second metatarsomeres).

Name derivation. Dedicated to Maurice Pic, author of the original name, which has now become a junior secondary homonym of *P. rufa* Pic, 1922.

Macrotomoxia Pic, 1922

Macrotomoxia Pic, 1922a: 208. Type species: *Macrotomoxia castanea* Pic, 1922 (by monotypy).
Macrotomoxia: Kôno, 1928: 30.
Higehananomia Kôno, 1935: 123, **syn. n.** Type species: *Higehananomia palpalis* Kôno, 1935 (by monotypy).

Included species. *M. castanea* Pic, 1922; *M. gardneri* (Blair, 1931).
Geographic distribution. Very probably distributed widely in the Oriental region.
Comments. Very characteristic and uniform genus resembling *Calycina* Blair, 1922 in the body form and size (Fig. 21) but differing from the latter by its smooth dorsal surface without impressions and with sparse, uniformly directed pubescence and by the shape of maxillary palpi in both sexes. Terminal maxillary palpomere in males always with three very long, membraneous tentacular processes, in repose rolled into a circular structure (Fig. 22), in females elongately securiform with a rounded inner corner and with a dish-shaped groove at outer side of the palpomere (Fig. 25). Eyes very large, rounded, coarsely facetted and pubescent. Temples well developed, gradually narrowed towards the ventral margin of eyes, where they are pointed. Both metatibiae and metatarsomeres without dorsal ridges. Parameres symmetrical, with a structure resembling that of Stenaliini (Fig. 23).
Note. Ermisch (1949) distinguished *Calycina* Blair, 1922 from *Higehananomia* (now *Macrotomoxia*) according to the shape of scutellum. This character is not reliable, because triangular scutellum occurs in both genera under discussion. There is one female of "*Macrotomoxia*" in my collection, which has scutellum with truncate apex, without differing from its congeners in any other character. Reliable diagnostic characters are therefore especially the shape of eyes, temples and male genitalia.

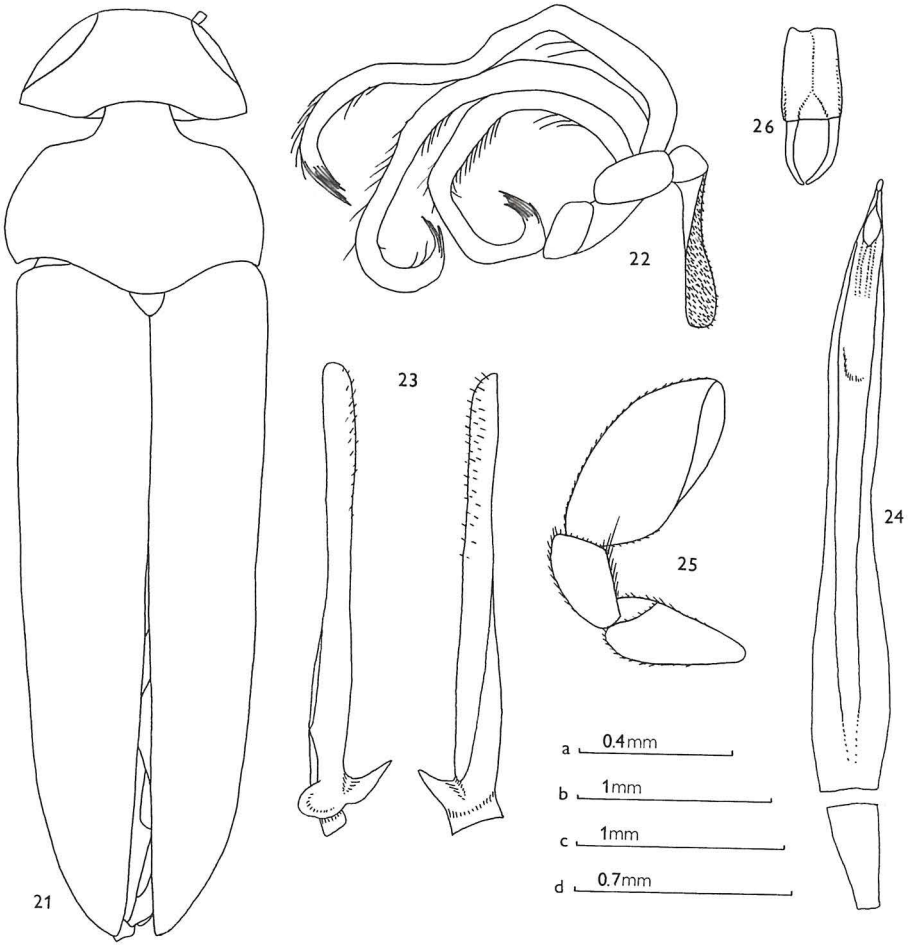
Macrotomoxia castanea Pic, 1922
(Figs 21-26)

Macrotomoxia castanea Pic, 1922a: 208.
Higehananomia palpalis Kôno, 1935: 128, **syn. n.**

Geographic distribution. Japan, Taiwan, Vietnam, Laos, Thailand.
Material examined. Lectotype by present designation, male (MNHN), Laos, Ban Pilah, 8.4.1918, R. Vitalis de Salvaza. Paralectotype, 1 female (MNHN), Laos, M. L. Namta, 10.4.1918, R. Vitalis de Salvaza.
Further material: 1 female (MNHN), Tonkin, M. Om, 17.v.1920, R. Vitalis de Salvaza; 1 female (SMTD), Laos, Umg. Paklay, 1963; 1 female (SMTD), Laos, Umg. Vientiane, iii.-vi.1963; 1 male (CHP), N. Vietnam, Vinh Phu prov., Tam Dao, 3. - 11. vi. 1985, V. Švihla leg.; 1 male (CHP), dtto, 2.-11.vi.1985, V. Kubáň leg.; 1 female (CHP), N. Vietnam, Tam Dao, 900 m, 27.v. 2.vi.1986, A. Olexa leg.; 2 females (CHP), N. Vietnam, Ha Son Binh prov., Huang Son, 26.-29.iv.1991, J. Strnad leg.; 1 female (CHP), NW Thailand, Mae Hong Son, Ban Huai Po, 1600-2000 m, 19°18'N 97°59'E, 17.-23.v.1991, L. Dembický leg.; 1 female (CHP), Thailand, Nan, Pha Khab, 11.-15.v.1993, Pacholátko and Dembický leg.

Redescription. Body very large, parallel-sided, little convex (Fig. 21). Colouration completely chestnut brown with golden-brown pubescence; anteclypeus, anterior margin of labrum, basal antennomeres and basal maxillary palpomeres yellow- to red-brown.

Head rather convex, width to length as 17 : 8, only little narrower than pronotum, vertex strongly emarginate. Eyes very large, occupying two thirds of the head width (frontal view), by about one third of their width reaching to ventral side of head, with rather large and sharp incision at antennal insertions, with medium-sized facettes, pubescent. Temples very broad, cuneiform, pointed ventrally. Maxillary palpi in males very characteristic (Fig. 22), with three long



Figs 21-26. *Macrotomoxia castanea* Pic, lectotype, male: 21 - habitus; 22 - maxillary palpus; 23 - paramere; 24 - penis; paralectotype, female: 25 - maxillary palpus; dtto, Vietnam, male: 26 - phallobasis. Scale: a - 23; b - 21; c - 22, 25; d - 24, 26.
Obr. 21-26. *Macrotomoxia castanea* Pic, lectotypus, samec: 21 - postava; 22 - čelistní makadlo; 23 - paramery; 24 - penis; paralectotypus, samice: 25 - čelistní makadlo; dtto, Vietnam, samec: 26 - phallobase. Měřítko: a - 23; b - 21; c - 22, 25; d - 24, 26.

processes, which are in repose rolled into a dish-shaped structure. Terminal maxillary palpomere in female (Fig. 25) comparatively elongate, securiform, very robust, with a dilated dish-shaped oval concavity with dense and short pubescence. Antennae relatively long and serrate: first antennomere twice as long as and slightly wider than the second one; third antennomere 1.6 times as long as and slightly narrower than the second; fourth antennomere by about one fourth shorter and slightly wider than the third one; fifth antennomere almost twice as long as and by one fourth wider than the forth one; fifth to tenth antennomeres distinctly triangular, gradually diminishing; the fifth one is 1.5 times while the tenth is only 1.2 times as long as wide; eleventh antennomere elongate, clavate, 1.8 times as long as wide, by one fourth longer and distinctly narrower than the tenth one.

Pronotum very broad, width to length as 18.6 : 13.5, almost rectangular. Anterior margin straight with very distinctly projecting collar-shaped process, anterior angles well developed and rounded; posterior margin straight with very broad flat posterior lobe. Lateral margins in lateral view straight, posterior angles obtuse, rounded.

Scutellum rather large, subtriangular with rounded apex, shallowly impressed in the middle.

Elytra parallel-sided (in females somewhat rounded laterally), 2.7 times longer than their combined width, simultaneously rounded at apex. Surface strongly transversely rugosely punctate; punctures very strong and oblong at base, becoming finer posteriorly. Pubescence short, dense, golden brown.

Protibiae straight, not dilated and without longer outstanding hairs at base. Protarsi somewhat longer than protibiae, first tarsomere twice as long as the second one, fourth tarsomere longer than wide, emarginate in distal third, terminal twice as long as the fourth one. Mesotarsi longer than mesotibiae. Metatibiae only with an apical ridge, which is parallel to the apical margin of tibia and reaching one third of its width. Metatarsi without ridges. Outer apical thorn of hind tibia slightly longer than one half of the length of the inner one.

Male genitalia as figured (Figs 23-26).

Length from mandibular to elytral apices 11.7-15.0 mm, to the apex of pygidium 11.7-15.8 (depending on preparation).

Differential diagnosis. *M. castanea* differs from very similar *M. gardneri* by its dark brown colouration as well as by the shape of male genitalia.

Synonymy. Description of (the genus and species) *Higehananomia palpalis* Kôno, 1935 resulted from the ignorance of the type of *Macrotomoxia castanea* Pic, 1922. The types of both taxa are obviously identical.

Macrotomoxia gardneri (Blair, 1931), **comb. n.**

Calycina gardneri Blair, 1931: 203-204.
Higehananomia gardneri: Horák, 1995: 182.

Geographic distribution. India (West Bengal), North Sumatra, Borneo (Sarawak).

Material examined. See Horák (1995).

Comments. *Macrotomoxia gardneri* was originally described as member of the genus *Calycina* and subsequently transferred to *Higehananomia* by Horák (1995). *Macrotomoxia gardneri* is at the first sight very similar to *M. castanea*, but the two species can be distinguished by the colour of body, which is red-brown in *M. gardneri* (brown in *M. castanea*), by aedeagus broadly parallel-

sided distally and pointed at apex in *M. gardneri* (gradually narrowed distally from its midlength in *M. castanea*), parameres with dorsal processes curved, narrow and elongately dilated at apex in *M. gardneri* (straight, rather thick and parallel-sided in *M. castanea*) and with ventral processes rounded at apex in *M. gardneri* (acutely pointed in *M. castanea*).

Calycina Blair, 1922

Calycella Blair, 1922a: 250, non Allmann, 1864: 375. Type species: *Calycella palpalis* Blair, 1922.
Calycina Blair, 1922b: 222-223. Type species: *Calycella palpalis* Blair, 1922.

Included species. *Calycina guineensis* (Blair, 1922); *C. laosensis* (Ermisch, 1968); *C. nigriceps* (Blair, 1922); *C. nigroapicalis* Nomura, 1967; *C. major* Nomura, 1967; *C. palpalis* Blair, 1922; *C. sericeobrunnea* (Blair, 1915).
Geographic distribution. Circumtropical.
Comments. Large to middle-sized species. Body slender, resembling some species of the genus *Glipa* Leconte, 1857. Dorsal surface with impressions (e.g., in the middle and at sides of posterior pronotal lobe, besides scutellum, along elytral suture etc.) in which pubescence is either arranged in circles, or directed laterally. Terminal maxillary palpomere in male with three tentacular processes as in *Macrotomoxia* (see Ermisch 1949), in female with dish-shaped concavity, which is shifted more to the ventral surface of palpomere (Figs 28, 33, 49). Eyes small (Fig. 32), finely facetted, pubescent. Temples extremely broad, even at ventral margins of eyes very broad. Both metatibiae and metatarsi without dorsal ridges as in *Macrotomoxia*. Parameres in *C. guineensis* and *C. palpalis* symmetrical (males of other species unknown), of similar shape as in *Macrotomoxia* (Figs 36, 42).

Key to species of *Calycina*

1 (4) Body bicoloured, rusty with black elytral apices and black head (colour of head not given in *C. nigroapicalis* Nomura).
2 (3) First and third antennomeres equal in size, each of them three times as long as the second and twice as long as the fourth one (Fig. 29). Antennae beginning from the fourth antennomere strongly serrate, fourth antennomere as long as wide, tenth one by one third wider than long. Temples with strongly prominent acute temporal angle (Fig. 27). Fourth tarsomeres of both fore and mid legs emarginate in two distal thirds of their length (Fig. 30). Length 12 mm. Male unknown. Malaysia. ..... *C. nigriceps* (Blair)
3 (2) Third antennomere as large as the second and a little shorter than the fourth one, first antennomere distinctly larger than the third one and only a little longer than the second one. Antennae beginning from the fourth antennomere only feebly serrate, with fourth and tenth antennomeres slightly longer than wide. Temporal angles not projecting into acute points. Fourth tarsomeres of both fore and mid legs only shallowly emarginate. Length 6 mm (excluding head and pygidium). Only one female known. Taiwan. ..... *C. nigroapicalis* Nomura
4 (1) Entire body concolorous, black to black-brown, head and pronotum sometimes darker than elytra.
5 (6) Elytra twice (female) or 2.35 times (male) as long as their combined width. Pygidium completely covered by elytra (female) or distinctly projecting behind them (male), only slightly longer than hypopygium. Basic pubescence of elytra dark brown, with golden-silvery pattern consisting of large and vaguely delimited humeral spots and broad transverse spot behind the midlength of elytra (Fig. 31). Length 9.0-10.4 mm. W. Africa (Gulf of Guinea). ..... *C. guineensis* (Blair)
6 (5) Elytra in both sexes 2.4-2.7 times longer than their combined width. Pygidium distinctly exceeding elytra, sometimes completely exposed, nearly twice as long as hypopygium. Pubescence of elytra red-brown to brown, concolorous, only sometimes with strip of golden-brown hairs along suture (Figs 38, 45, 48).
7 (8) Lateral margins of pronotum in lateral view straight, posterior angles subrectangular. Pronotum with gently projecting posterior lobe (Fig. 38). Elytra without pale hairs along suture (Fig. 38). Protarsi not dilated in male. Processes on parameres very long, comparatively narrow (Fig. 42). Length 14.7 mm. Brasil (Bahia). ..... *C. palpalis* (Blair)
8 (7) Lateral margins of pronotum in lateral view convex, posterior angles broadly obtuse. Pronotum with low mediolongitudinal carina reaching from posterior lobe to anterior margin (Figs 45, 48). Elytra with more or less distinct golden-brown pubescence along suture (Figs 45, 48).

9 (10) Elytra long and slender, 2.6-2.7 times longer than their combined width at humeri. Disc of each elytron behind humerus with distinct longitudinal impression reaching to the apex of elytra (Fig. 45). Head and pronotum black. Only three females known. Length 15-16 mm. Taiwan, West Sumatra. ..... *C. major* Nomura

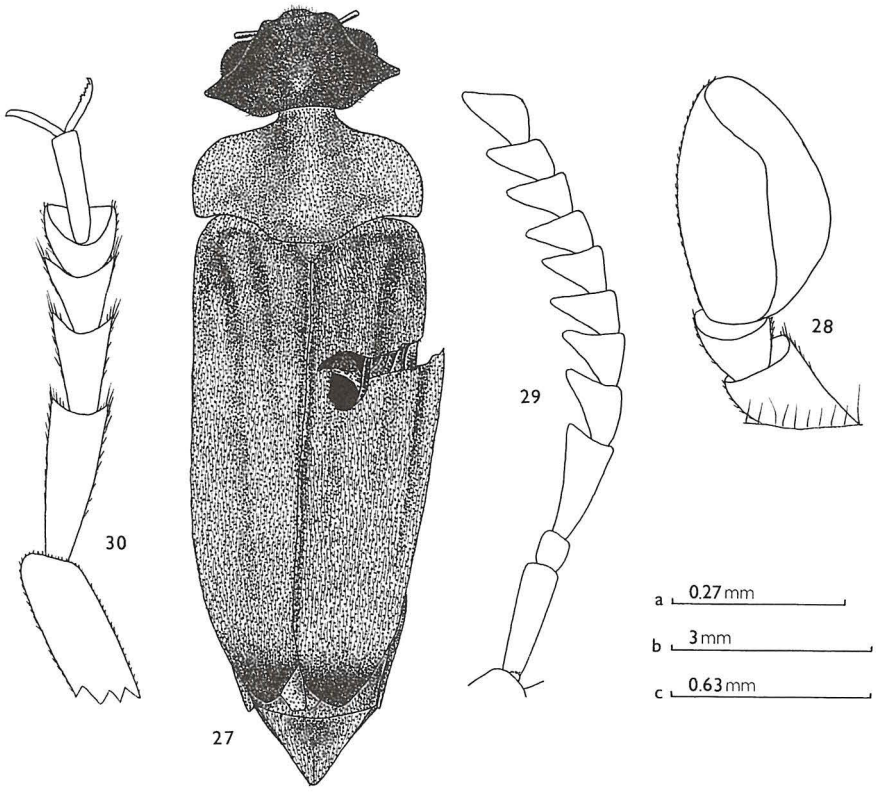
10 (9) Elytra 2.4 times longer than their combined width at humeri. Disc of each elytron behind humerus only in basal half with slightly marked longitudinal impression (Fig. 48). Head and pronotum dark brown, only slightly darker than elytra. Only one female known. Length 16.2 mm. New Guinea. ..... *C. sericeobrunnea* (Blair)

Calycina nigriceps (Blair, 1922)
(Figs 27-30)

Calycella nigriceps Blair, 1922a: 224.
Calycina nigriceps: Blair, 1922b: 250.

Geographic distribution. Malaysia.

Material examined. Holotype (by monotypy), female (NHML), Malay Penin., Negri Sembilan, 1900 - 112, H. N. Ridley, labelled "Type" (red label) and "*Calycella nigripes* Blair, Type", subsequently labelled as holotype by myself.



Figs 27-30. *Calycina nigriceps* (Blair), holotype, female: 27 - habitus; 28 - maxillary palpus; 29 - antenna; 30 - protarsus. Scale: a - 28; b - 27; c - 29, 30.
Obr. 27-30. *Calycina nigriceps* (Blair), holotypus, samice: 27 - postava; 28 - čelistní makadlo; 29 - tykadlo; 30 - přední chodidlo. Měřítko: a - 28; b - 27; c - 29, 30.

Calycina guineensis (Bair, 1922)
(Figs 31-37)

Calycella guineensis Blair, 1922a: 225.
Calycina guineensis: Blair, 1922b: 250.
Calycella impressa Pic, 1931: 262, **syn. n.**
Calycina impressa: Ermisch, 1949: 71.

Geographic distribution. Gulf of Guinea (West Africa).
Material examined. Holotype, female (NHML), Gold Coast, 1921-22, G. S. Cotterell, labelled "Type H. T." (red label) and "*Calycella guineensis* Blair, Type".
Further material: 1 female (MNHN), Moto, labelled "*Calycella impressa* n.sp." (Holotype, by monotypy of *C. impressa*, subsequently labelled as holotype by myself); 1 male (SMTD), Belg. Congo, Lulua: Kapanga, 10.33, Overlaat leg., wrongly labelled "Type" (red label) and "*Calycina impressa* Pic, det. K. Ermisch, 1960".
Comments. A characteristic species with strongly developed impressions on pronotum and elytra and with very distinct humeral costae (Fig. 31). Body colouration black-brown; only anteclypeus, postclypeus, labrum, maxillary palpi, galeae, laciniae, antennae and both fore and mid legs yellow- to red-brown. Pubescence golden-silvery, in impressions arranged either in circles or transversally, in the second third of the length of elytra making up a round pale spot with dark hairs in the middle. It has, like other species of *Calycina*, extremely developed temples and very small, finely facetted eyes (Fig. 32) with very short and fine hairs. Terminal maxillary palpomere in female broadly securiform with strongly rounded corners, very robust, with dorsal dish-shaped convexity occupying one half of the width of the palpomere (Fig. 33). Antennae short, strongly serrate (Fig. 34). Protarsi longer than protibiae, fourth protarsomere emarginate in distal half, on ventral surface with onychium, which is almost truncate distally (Fig. 35). Metatibiae and metatarsi without dorsal ridges. Pygidium very short, by one fourth longer than hypopygium, in dorsal view completely covered by elytra. Male genitalia similar to those of *C. palpalis*, parameres symmetrical and very narrow with reduced dorsal processes (Fig. 36). Median lobe of aedeagus short and strong.

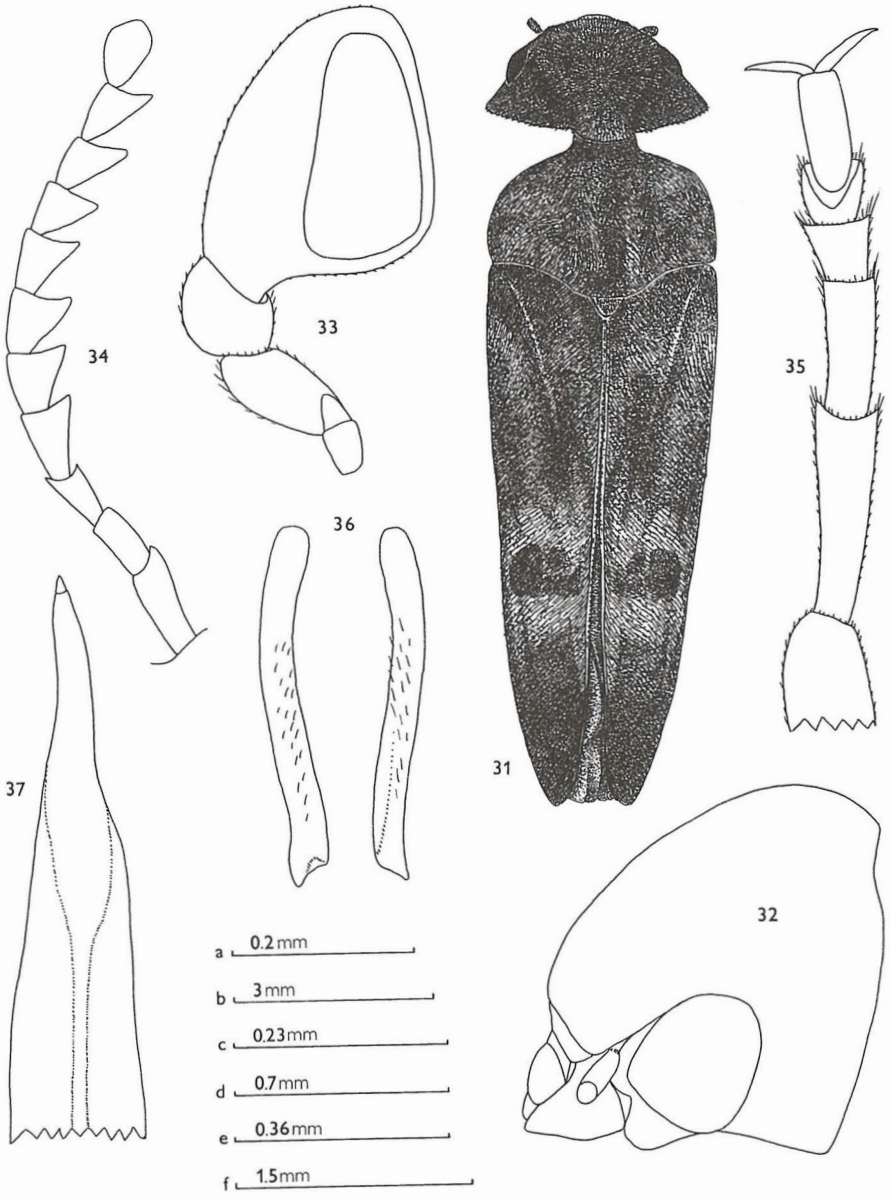
Sexual dimorphism. Male distinctly more slender with thinner antennae. Terminal maxillary palpomere narrow and long with three very long tentacular processes, which are in repose rolled in a dish-shaped structure.

Length from mandibular to elytral apices 9.0-10.4 mm.
Synonymy. Revision of type specimens revealed that *C. impressa* Pic, 1931 is quite identical with *C. guineensis* (Blair, 1922) and must be considered its junior synonym.

Calycina palpalis (Blair, 1922)
(Figs 38-44)

Calycella palpalis Blair, 1922a: 223.
Calycina palpalis: Blair, 1922b: 250.

Geographic distribution. Brazil.
Material examined. Lectotype by present designation, male (NHML), Bahia, 1905, Fry coll., labelled "Type" (red label) and "*Calycella palpalis* Blair, Type".

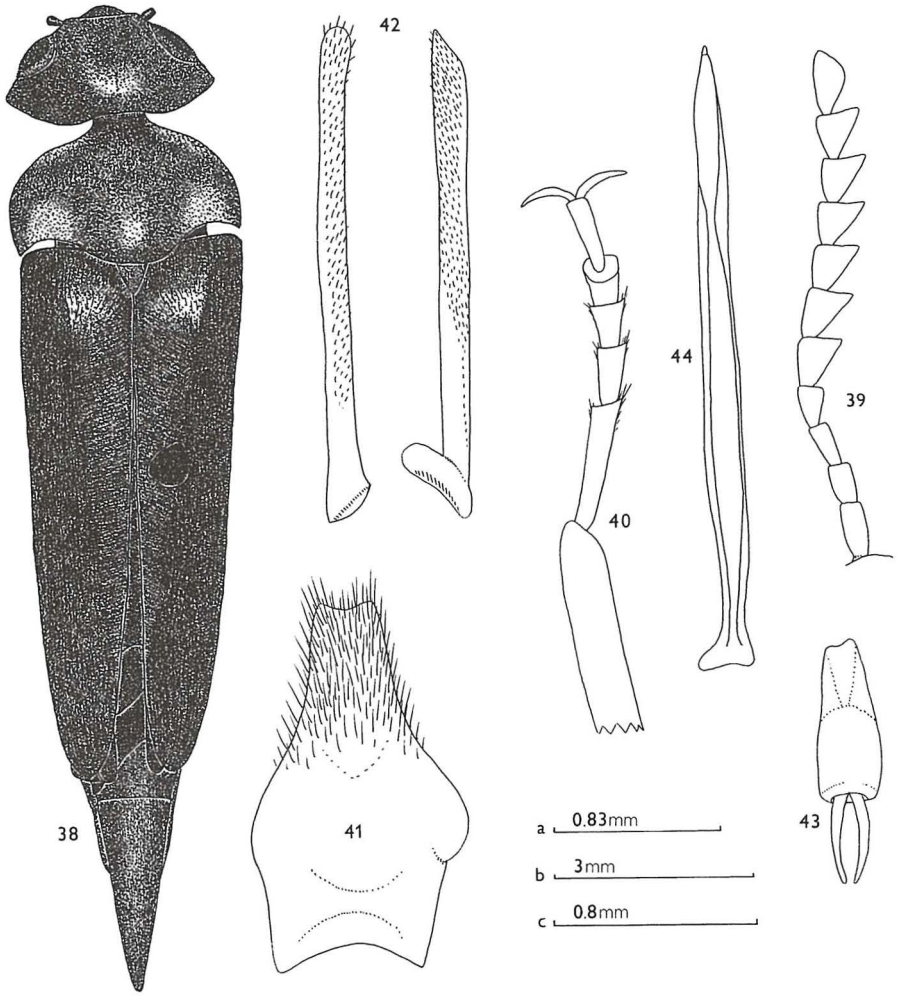


Figs 31-37. *Calycina guineensis* (Blair), holotype, female: 31 - habitus; 32 - head; 33 - maxillary palpus; 34 - antenna; Belgian Congo, male: 35 - protarsus; 36 - paramere; 37 - apex of penis. Scale: a - 36; b - 31; c - 33; d - 34, 35; e - 37; f - 32.
Obr. 31-37. *Calycina guineensis* (Blair), holotypus, samice: 31 - postava; 32 - hlava; 33 - čelistní makadlo; 34 - tykadlo; Belgické Kongo, samec: 35 - přední chodidlo; 36 - paramery; 37 - špice penisu. Měřítko: a - 36; b - 31; c - 33; d - 34, 35; e - 37; f - 32.

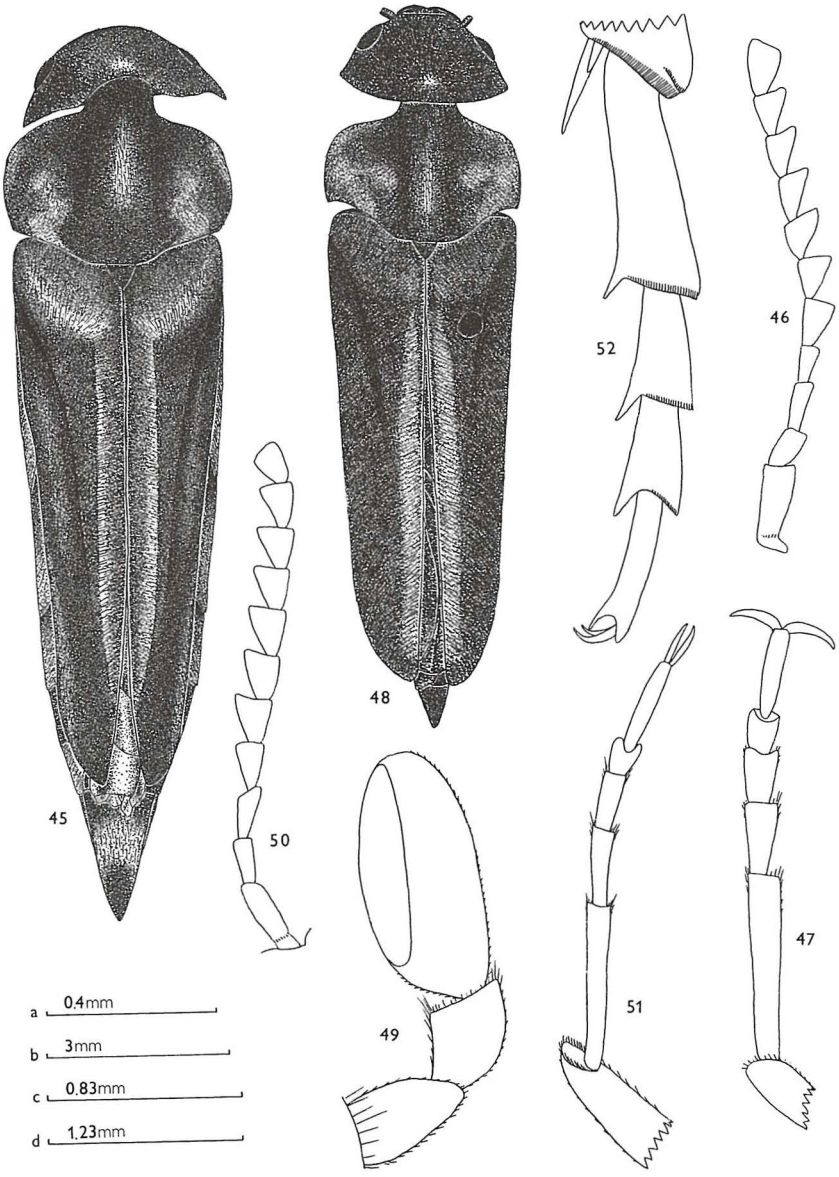
Calycina major Nomura, 1967
(Figs 45-47)

Calycina major Nomura, 1967: 6-7.

Geographic distribution. Taiwan, Sumatra.
Material examined. 1 female (CHP), Indonesia, W. Sumatra, vii.1991; 1 female (CHP), W. Sumatra, Padang, i.1995.



Figs 38-44. *Calycina palpalis* (Blair), lectotype, male: 38 - habitus; 39 - antenna; 40 - protarsus; 41 - 8. internal sternite; 42 - paramere; 43 - phallobasis; 44 - penis. Scale: a - 39, 40, 42; b - 38; c - 41 ,43, 44.
Obr. 38-44. *Calycina palpalis* (Blair), lectotypus, samec: 30 - postava; 39 - tykadlo; 40 - přední chodidlo; 41 - 8. vnitřní sternit; 42 - paramery; 43 - phallobase; 44 - penis. Měřítko: a - 39, 40, 42; b - 38; c - 41, 43, 44.



Figs 45-52. 45-47: *Calycina major* Nomura, Sumatra, female: 45 - habitus; 46 - antenna; 47 - protarsus. 48-52: *Calycina sericeobrunnea* (Blair), holotype, female: 48 - habitus; 49 - maxillary palpus; 50 - antenna; 51 - protarsus; 52 - metatarsus. Scale: a - 49; b - 45, 48; c - 46, 47, 50, 51; d - 52.

Obr. 45-52. 45-47: *Calycina major* Nomura, Sumatra, samice: 45 - postava; 46 - tykadlo; 47 - přední chodidlo. 48-52: *Calycina sericeobrunnea* (Blair), holotypus, samice: 48 - postava; 49 - čelistní makadlo; 59 - tykadlo; 51 - přední chodidlo; 52 - zadní chodidlo. Měřítko: a - 49; b - 45, 48; c - 46, 47, 50, 51; d - 52.

Calycina sericeobrunnea (Blair, 1915)
(Figs 48-52)

Mordella sericeobrunnea Blair, 1915: 589.
Calycella sericeobrunnea: Blair, 1922a: 223.
Calycina sericeobrunnea: Blair, 1922b: 250.

Geographic distribution. New Guinea.
Material examined. Holotype, female (NHML), Dutch N. Guinea, Utakwa R. Exp., Sep. 1912 to Mch. 1913, A. F. R. Wollaston, 1913-244, labelled "Type H. T." (red label) and "*Mordella sericeobrunnea* Blair, Type, det. K. G. Blair".

Paraphungia Ermisch, 1968

Paraphungia Ermisch, 1968: 3-4. Type species: *Calycella tarsalis* Blair, 1922 (= *Paraphungia laosensis* Ermisch, 1968) (by monotypy).

Included species. Monotypic genus.
Comments. Entire body black-brown, only impressions at the base of pronotum light brown. Pubescence of elytra grey-yellow with an indistinct black spot at the base of elytra, long black lateral stripes and black tips of elytra. Elytra strongly narrowed behind humeri, in posterior portion almost parallel-sided, leaving abdominal segments exposed laterally (Fig. 53). Head comparatively very large, build as in *Calycina*. Protarsomeres in males from first to fourth extremely dilated, the fourth one emarginate in distal half. Antennae beginning from the fifth antennomere serrate, terminal antennomere short and clavate, with shallowly emarginate apex (Fig. 56). Terminal maxillary palpomere of male with three long and strongly pubescent tentacular processes, which are shorter than in *Macrotomoxia* (Fig. 54). Metatibiae and metatarsi without dorsal ridges. Parameres similar to those in *Macrotomoxia* and *Calycina*, symmetrical, with short and broad dorsal processes (Fig. 57).

Examination of a new material from Malaysia containing both sexes revealed that *Paraphungia laosensis* (described after one female) is conspecific with *Calycina tarsalis* and must be considered its junior synonym.

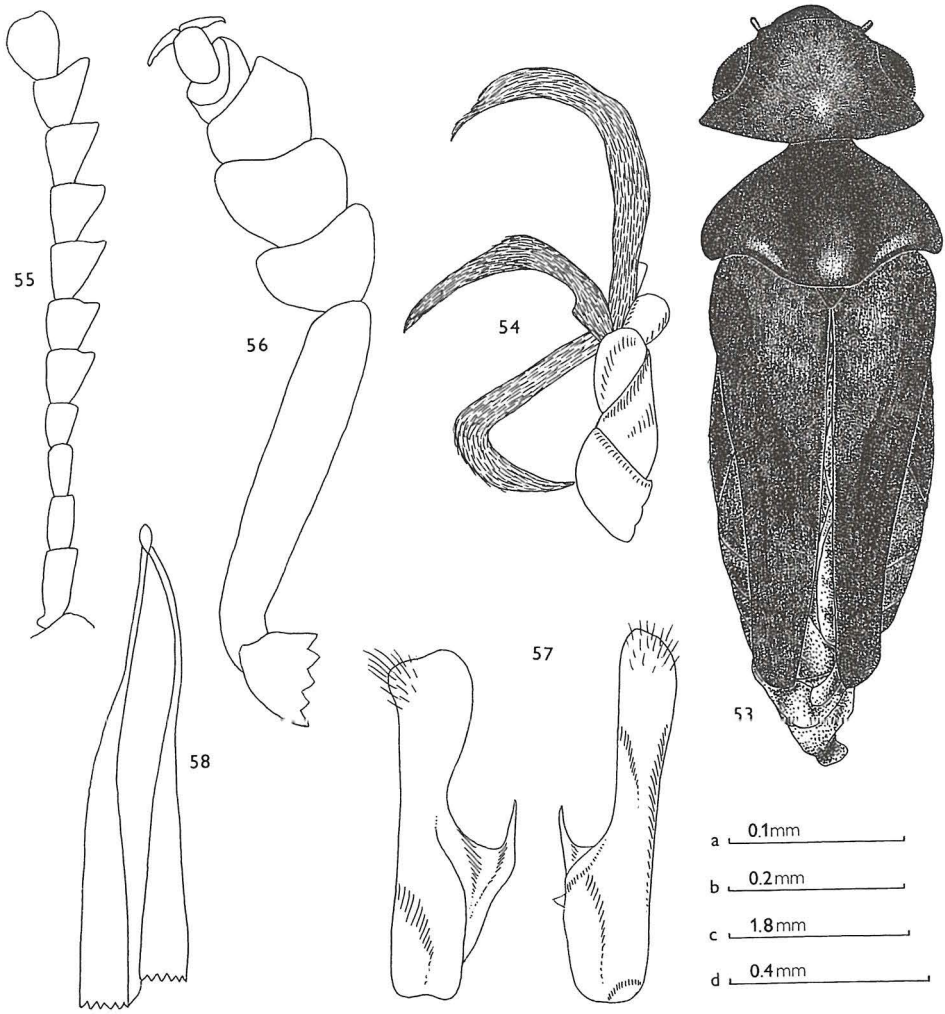
Paraphungia tarsalis (Blair, 1922), **comb. n.**
(Figs 53-58)

Calycella tarsalis Blair, 1922a: 223-224.
Calycina tarsalis: Blair, 1922b: 250.
Paraphungia laosensis Ermisch, 1968: 3-6, **syn. n.**

Geographic distribution. Laos, Malaysia, Borneo.
Material examined. Holotype (by monotypy), male (NHML), Borneo, Sandakan, Baker, Brit. N. Borneo, 1919-207, C. F. Baker, labelled "Type" (red label) and "*Calycella tarsalis* Blair, Type", subsequently labelled as holotype by myself.
Further material: 1 female (holotype of *P. laosensis*, SMTD), Laos, Vientiane; 1 male (CHP), Laos, Louang Namtha prov., Namtha to Muang Sing, 900-1200 m, 21°09'N, 101°19'E, 5.-31.v.1997, V. Kubáň leg.; 1 male, 3 females (CHP), C. Malaysia, Pahang, Beno Mts., Lata Jarom, 2 km of Kampong Ulu Dong, March to April 1997, I. Jeniš leg., ex larvae.

Comments. Both sexes of this interesting species were described as distinct species, male as *Calycella tarsalis*, female as *Paraphungia laosensis*. Since the recently collected material from Malaysia contained syntopic specimens of both sexes, it was possible to identify *P. laosensis* Ermisch, 1968 as conspecific with *P. tarsalis* (Blair, 1922). Peculiar characters of *P. tarsalis* are the extremely dilated protarsi in male (Fig. 56) and the very short parameres (Fig. 57).

Variation. Considerable variation in body size of both sexes is probably caused by development in dry dead wood (I. Jeniš, pers. comm.). Remarkable is also the occurence of two different types



Figs 53-58. *Paraphungia tarsalis* (Blair), holotype, male: 53 - habitus; 54 - maxillary palpus; 55 - antenna; 56 - protibia and protarsus; 57 - paramere; 58 - apex of penis. Scale: a - 57; b - 58; c - 53; d - 54-56.

Obr. 53-58. *Paraphungia tarsalis* (Blair), holotypus, samec: 53 - postava; 54 - čelistní makadlo; 55 - tykadlo; 56 - přední holeň a chodidlo; 57 - paramery; 58 - špice penisu. Měřítko: a - 57; b - 58; d - 54-56.

of the colouration of pubescence: in the first one (both sexes) is the pubescence uniform, grey-yellow (known from Borneo, Malaysia and Laos), in the second one, known from Malaysia and Laos (see original description of *P. laosensis*) is the pubescence golden-yellow with a black pattern (Fig. see Ermisch, 1969: 5) (females only).

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SOUHRN

Díky možnosti revize typového materiálu z rodů popsaných M. Picem a K. G. Blairem bylo možné zrevidovat systematiku „rodové skupiny *Calycina*" sensu Franciscolo (1965). Největší systematické omyly byly v minulosti způsobeny tím, že nebyl studován typový materiál z Picovy sbírky z Národního přírodovědeckého muzea v Paříži. Z tohoto důvodu byl rod *Phungia* Pic, 1922 (viz Pic 1922b) chybně zařazen do příbuzenstva rodu *Cothurus* Champion, 1891 Ermischem (1949) a následkem toho opětovně popsán Franciscolem (1961) jako rod *Dollmania* Franciscolo, 1961. Obdobně byl nedostatečně popsán i rod *Macrotomoxia* Pic, 1922 a později chybně interpretován Ermischem (1949), což také zavinilo jeho nový popis jako rod *Higehananomia*

Kôno, 1935. Také sám Pic (1932) popsal evidentní druh z rodu *Phungia* (který sám popsal) v rodu *Calycina* Blair, 1922, a navíc pro něj vytvořil nový podrod *Calycellina* Pic, 1932. Mezi druhy v rodu *Calycina* byl uveden druh (*C. borneensis*) z rodu *Phungia*, což ukazuje na to, že Blair (1922a) v té době ještě tyto dva rody nerozlišoval. Díky novému materiálu z Malajsie obsahujícím obě pohlaví druhu *Calycina tarsalis* Blair, 1922, bylo možné tento druh přeřadit do rodu *Paraphungia* Ermisch, 1968 a jako jeho nové synonymum stanovit druh *P. laosensis* Ermisch, 1968.

Tato práce řeší celou rodovou problematiku a v některých případech i druhovou. Stále však zůstávají nedořešené systematické vztahy u afrotropických druhů rodu *Phungia*, protože některé jsou popsány pouze podle samic a dosud není k disposici žádný další materiál. Podle nejnovějších poznatků vyplývajících z revize typů je celá „skupina *Calycina*" velmi nehomogenní a jako její společný znak v rámci tribu Mordellini lze uvést pouze velmi ojediněle utvářená makadla. Obdobně utvářená makadla lze však nalézt i u rodů *Glipodes* LeConte, 1862 v tribu Conaliini a *Calyce* Champion, 1891 v tribu Mordellistenini.

Klíč rodů skupiny *Calycina*

1(2) Zadní holeně a články zadních chodidel se zřetelnými dorsálními vruby (obr. 8, 20). Oči jsou velmi velké a nezasahují na spodní stranu hlavy. Spánky jsou úzké, ale zřetelné a jsou dosti paralelní. Krátké, zavalité druhy (obr. 1, 5, 16) s jednotným červenohnědým zbarvením. Paramery jsou asymetrické (obr. 3, 13). Aethiopská a orientální oblast. ..... *Phungia* Pic

2(1) Zadní holeně, ani články zadních chodidel, nemají vytvořeny dorsální vruby (obr. 52), pouze vzácně jsou vytvořeny dorsální zrnka. Paramery jsou symetrické (obr. 23, 36, 42, 57).

3(4) Oči jsou velmi velké a zasahují na spodní stranu hlavy. Spánky jsou poměrně široké a klínovité. Velké až velmi velké druhy (samice) jsou jednotně hnědě zbarvené. Orientální oblast. ..... *Macrotomoxia* Pic

4(3) Oči jsou velmi malé (obr. 32) a nezasahují na spodní stranu hlavy. Spánky jsou extrémně rozšířené.

5(6) Středně až velmi velké druhy: 6,0-16,2 mm. Chodidlové články předních noh jsou u samce nerozšířené, jsou užší nebo stejně široké jako přední holeně (obr. 35, 40, 47, 51). Krovky se od ramenou dozadu stejnoměrně zužují a po stranách zcela zakrývají zadečkové články (obr. 27, 31, 38, 45, 48). Celá tropická oblast. ..... *Calycina* Blair

6(5) Malý druh: 3,9-9,5 mm. Chodidlové články předních noh jsou u samce extrémně rozšířené, jsou zřetelně širší než přední holeně (obr. 56). Krovky se za rameny silně zužují dozadu, takže po stranách zřetelně odkrývají zadečkové články (obr. 53). Orientální oblast. ..... *Paraphungia* Ermisch

Klíč druhů rodu *Calycina*

1(4) Tělo je dvoubarevně zbarvené, je rezavé s černými konci krovek a s černou hlavou (u C. *nigroapicalis* Nomura není zbarvení hlavy uvedeno).

2(3) 1. a 3. článek tykadel jsou stejně velké, 3x tak dlouhé jako 2. a 2x tak dlouhé jako 4. článek (obr. 29). Od 4. článku jsou tykadla silně pilovitá, 4. článek je stejně dlouhý jako široký, 10. je o třetinu širší než dlouhý. Spánky mají vytvořen do strany silně vystupující a ostrý spánkový roh. 4. článek chodidel u obou předních párů noh je vykrojený do dvou třetin délky článku obr. 30). Délka: 12 mm. Známa pouze 1 samice. Malajsie. ..... *C. nigriceps* (Blair)

3(2) 3. článek tykadel je stejně velký jako 2. a je jen o málo kratší než 4., 1. článek je zřetelně větší než 3. a je jen o málo delší než 2. Od 4. článku jsou tykadla jen slabě pilovitá a jednotlivé články jsou nepatrně delší než široké. Spánky nemají spánkový roh vytažený v ostrou špici. 4. článek chodidel u obou předních párů noh je jen mírně vykrojený. Známa pouze 1 samice. Délka: 6 mm. Taiwan. ..... *C. nigroapicalis* Nomura

4(1) Celé tělo je jednobarevně černé až černohnědé.

5(6) Krovky jsou 2x (u samice) a 2,35x (u samce) tak dlouhé jako dohromady široké. Pygidium je zcela zakryté krovkami u samice, zřetelně vybíhající zpod krovek u samce a je jen nepatrně delší než hypopygium. Základní chloupkování krovek je tmavě hnědé se zlatostříbřitou kresbou: rozsáhlá a neohraničená skvrna na humerách a široká příčná skvrna za středem délky krovek (obr. 31). Délka: 9,0-10,4 mm. Afrika (Guinejský záliv). ..... *C. guineensis* (Blair)

6(5) Krovky jsou 2,4-2,7x tak dlouhé jako dohromady široké. Pygidium zřetelně přesahuje krovky, někdy je odkryté zcela, je přibližně 2x tak dlouhé jako hypopygidium. Chloupkování krovek je červenohnědé až hnědé, je jednolité, pouze někdy je při švu zřetelný podélný proužek zlatohnědého chloupkování (obr. 38, 45, 48).

7(8) Postranní okraj štítu je při pohledu z boku přímý, zadní rohy jsou téměř pravoúhlé. Štít má lehce vystouplý pouze zadní lalok. Krovky jsou bez světlého chloupkování při švu (obr. 38). Chodidlové články na předních nohách jsou nerozšířené a dorsální výběžky paramer jsou velmi dlouhé a relativně úzké (obr. 42). Délka: 14,7 mm. Brazílie (Bahía). .... *C. palpalis* (Blair)

8(7) Postranní okraj štítu je při pohledu z boku vypouklý, zadní rohy jsou velmi silně tupoúhlé. Štít má ve středu ploše vyklenutý podélný kýl vybíhající od zadního laloku až k hlavě. Krovky mají při švu více či méně zřetelný zlatohnědě chloupkovaný proužek (obr. 45, 48).

9(10) Krovky jsou dlouhé a štíhlé, 2,6-2,7x tak dlouhé jako dohromady v ramenou široké, za rameny ve středu každé krovky je zřetelný podélný vtisk dosahující až ke konci krovek (obr. 45). Hlava a štít jsou černě zbarveny. Známy pouze 3 samice. Délka: 15-16 mm. Taiwan, západní Sumatra. ..... *C. major* Nomura

10(9) Krovky jsou kratší, 2,4x tak dlouhé jako dohromady v ramenou široké, za rameny ve středu pouze s nepatrně naznačeným vtiskem (obr. 48), který za polovinou délky krovek již není zřetelný. Hlava a štít jsou tmavě hnědě zbarveny, jsou pouze o málo tmavší než krovky. Známa pouze 1 samice. Délka: 16,2 mm. Nová Guinea. ..... *C. sericeobrunnea* (Blair)