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# New species of the leleupidiine genus *Colasidia* Basilewsky from mainland Asia (Insecta: Coleoptera: Carabidae: Zuphiinae)

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Abstract

Three additional new species of the leleupidiine genus *Colasidia* Basilewsky are described from Malaysia and Thailand: *Colasidia longicollis* **n. sp.** and *C. harpago* **n. sp.**, both from Malaysia, and *C. adusta* **n. sp.** from Thailand. The latter species is the first record of a leleupidiine species from Thailand.
Keywords: Coleoptera, Carabidae, *Colasidia*, new species, Asia.

Zusammenfassung

Aus der Leleupidiinen-Gattung *Colasidia* Basilewsky werden drei neue Arten aus Malaysia und Thailand beschrieben: *Colasidia longicollis* **n. sp.** and *C. harpago* **n. sp.**, beide aus Malaysia, und *C. adusta* **n. sp.** aus Thailand. Die letztere Art ist der erste Nachweis einer Leleupidiine aus Thailand.

Contents



## 1 Introduction

By courtesy of Dr. W. Schawaller of Staatliches Museum für Naturkunde, Stuttgart, I received a few specimens of the leleupidiine ground beetle genus *Colasidia* Basilewsky for identification that again include additional new species. Among these, the first record of a leleupidiine beetle from Thailand is most noteworthy.

Leleupidiine beetles are small, elongate, convex animals bearing an elongate, sometimes even triangular head with usually small eyes. They are still very rare in collections, because they normally can be sampled only by sieving litter or by Berlese extraction of the upper soil layer, and such sampling methods are not regularly carried out by most collectors. So, in mainland Asia, leleupidiines were mainly sampled by collectors who are in particular interested in soil and litter inhabiting insects.

From Asia three genera are known: *Gunvorita* Landin that is distributed along the southern margin of the Himalayas from Central Nepal through Sikkim, West Bengal to Khasi Hills in northeast India (BAEHR 1998, 2001, 2002, 2003); *Paraleleupidia* Basilewsky, subgenus *Megaleleupidia* Mateu, that occurs in a restricted area in southern India (MATEU 1981, BAEHR 1990); and *Colasidia* Basilewsky that has the widest, nevertheless so far remarkably dismembered range that, at the present state of knowledge, extends from the southern half of Malayan Peninsula through Sumatra and the northern part of Borneo, in a restricted area in northeastern New Guinea, and in a very restricted area in northeastern Queensland, Australia (BAEHR 1997, 1998). As explained in the mentioned papers cited above, *Colasidia* is a highly diverse genus in terms of external and genital morphology that has its apparent most ancestral members in the Malayan Peninsula, whereas phylogenetically derived species are mainly found in the Greater Sunda Islands and on New Guinea, with the single Australian species *C. monteithi* Baehr probably being the most highly evolved member of the genus that bears the largest numbers of apomorphic character states. However, even in the Malayan Peninsula certain quite derived species exist which suggests a complex biogeographic history of the genus.

The genus *Colasidia* was described by BASILEWSKY (1954: 215, fig. 1). An extensive diagnosis of the genus, a key to all species at that time known, and complete reference to the relevant literature can be found in my monograph on this genus (BAEHR 1997). Additional species from New Guinea were described in BAEHR (2000, 2004), with a key to all New Guinean and Australian species included in the 2004 paper.

Dissecting methods and measurements follow BAEHR (1997).

Acknowledgement

My sincere thanks are due to Dr. W. SCHAWALLER (Stuttgart) for the kind loan of the material.

### 2 Deposition of types

The holotypes of the new species are deposited in Staatliches Museum für Naturkunde, Stuttgart (SMNS). A paratype is deposited in the working collection of the author at Zoologische Staatssammlung, München (CBM).

## 3 Characters of the species of *Colasidia*

As explained in BAEHR (1997), best characters for the differentiation of species are the male genitalia that exhibit remarkably different shapes and structures. All previously known species described so far, and likewise one of the new species described herein, may be recognised immediately by their characteristic aedeagi. In addition, body shape, in particular shape of head, size of eyes in combination with shape of

orbits, shape of pronotum, relative length of elytra, and also degree and arrangement of punctuation of surface can be used as differentiating characters. Measurements and certain ratios may help to distinguish species if the male genitalia are not yet known. In certain species, even colouration may be of some use. These latter non-genital characters, however, are of special use for the differentiation of females, because the female genitalia, especially the stylomeres, are quite constant within the genus and do not allow reasonable distinction of species.

## 4 Descriptions of new species of *Colasidia*

### 4.1 *Colasidia longicollis* **n. sp.** (Figs. 2, 5, 8)

Holotype (♀): W-Malaysia: Lake Kenyir, 5 km SW dam, 50 km SW Kuala Terengganu, –350 m, 7.–12. VII.2001, leg. A. SCHULTZ & K. VOCK (SMNS).

#### Etymology

The name refers to the narrow and elongate prothorax in relation to those of related species.

#### Diagnosis

A large, depressed, piceous species with large, posteriorly evenly rounded head and large eyes. It is distinguished from related species by the narrow and elongate prothorax; also distinguished from *C. oviceps* Baehr by its smaller size and decidedly longer head; and from *C. rougemonti* Morvan and *C. depressa* Baehr by its relatively larger eyes and wider elytra.

#### Description

Measurements. Body length: 5.2 mm; body width: 1.8 mm. – Ratios. Length/width of head: 1.48; length orbit/eye: 2.25; length/width of pronotum: 1.24; width widest diameter/base of pronotum: 1.38; width pronotum/head: 1.18; length/width of elytra: 1.44; width elytra/pronotum: 2.0.

Colour (Fig. 2). Head very dark piceous, almost black, pronotum and elytra brown. Labrum, palpi, legs, and antennae yellow.

Head (Fig. 5). Large and rather elongate, regularly oval-shaped, not widened behind eyes, orbit posteriorly evenly rounded off. Upper surface rather depressed. Frons not grooved. Eyes fairly large, though depressed, length slightly > $^2/_5$ of orbit length. Clypeus anteriorly almost straight, lateral angles (above base of antenna) barely projecting. Clypeal suture laterally with shallow grooves. Labrum anteriorly rather excised, 6-setose, though inner 4 setae short, lateral margin densely pilose. Mandibles short. Mentum with wide, at apex slightly excised tooth. Labium truncate. Maxillary palpus elongate, apex obtusely rounded. Terminal segment of labial palpus large and very elongate. Antenna comparatively elongate, surpassing middle of pronotum. Median antennomeres distinctly longer than wide, 3rd antennomere slightly shorter than the elongate 1st one, almost twice as long as 2nd antennomere. Surface with traces of microreticulation that is most distinct on clypeus and anterior-lateral part of frons, rather glossy. Punctuation dense and coarse, distance between punctures less than diameter of punctures. Lateral punctures rather confluent to irregular transverse sulci. Pilosity dense, though short, markedly depressed, in-

clined anteriorly. Both supraorbital setae broken though probably elongate, posterior supraorbital setae probably situated far behind eye, but puncture of setae not recognizable within the coarse punctuation.

Pronotum (Fig. 8). Comparatively elongate, much longer than wide, distinctly wider than head, slightly cordiform, widest in anterior third. Upper surface rather depressed, disk slightly convex though depressed again along median line. Lateral margin moderately convex in anterior half, sinuate in front of posterior angles, though almost straight and fairly oblique in basal third. Apex rather wide, well excised, anterior angles convex, slightly projecting. Base wide, laterally gently excised and oblique, posterior angles barely projecting but finely denticulate. Lateral margin slightly raised, with distinct border line and with rather wide marginal channel. Median line distinct, sulcate. Prebasal grooves moderately deep. Both anterior marginal setae broken, though pore situated at anterior fourth of pronotum, posterior seta short, inconspicuous, situated right on basal angle. Surface with barely recognizable traces of microreticulation, fairly glossy, with very dense, coarse, coriaceous punctuation that forms irregular transverse furrows. Diameter of punctures much wider than their distance between them. Pilosity dense, short, inclined anteriorly, rather depressed.

Elytra (Fig. 2). Wide, inversely oviform, laterally evenly curved, widest in posterior third, upper surface rather depressed, odd intervals near humerus slightly raised. Humeri wide, rounded off, though slightly produced. Apex wide, slightly convex, oblique, redressed to suture. Striae barely marked, punctuation dense, moderately coarse, highly irregular, punctures confluent to irregular transverse or oblique furrows, surface markedly coriaceous. Third interval with three very short fixed setae which are not easily recognised within the dense pilosity. Series of marginal pores difficult to detect because most setae broken, apparently consisting of 8 basal, 3 postmedian, 6 apical pores, and 1 pore at apex of 3rd stria. Setae very elongate. Surface with fine traces of microreticulation in the bottom of punctures, rather glossy. Pilosity dense, short, irregular, inclined posteriorly, depressed.

Male genitalia. Unknown.

Female genitalia. Stylomere 2 rather elongate with acute apex, with 2 elongate ventral ensiform setae, the lower one being considerably shorter, one elongate dorsal ensiform seta, and a nematiform seta arising from a large groove in apical third of median surface. Apex of stylomere 1 asetose.

Variation. Unknown.

## Distribution

South-eastern Malayan Peninsula. Known only from type locality.

## Collecting circumstances

Unknown.

## Relationships

This species belongs to a group of large, depressed species which possess large, parallel, and at base not widened and evenly rounded head and comparatively large eyes, and that presumably include the most ancestral members of the genus. Because its male genitalia are yet unknown, the relationships of *C. longicollis* still remain

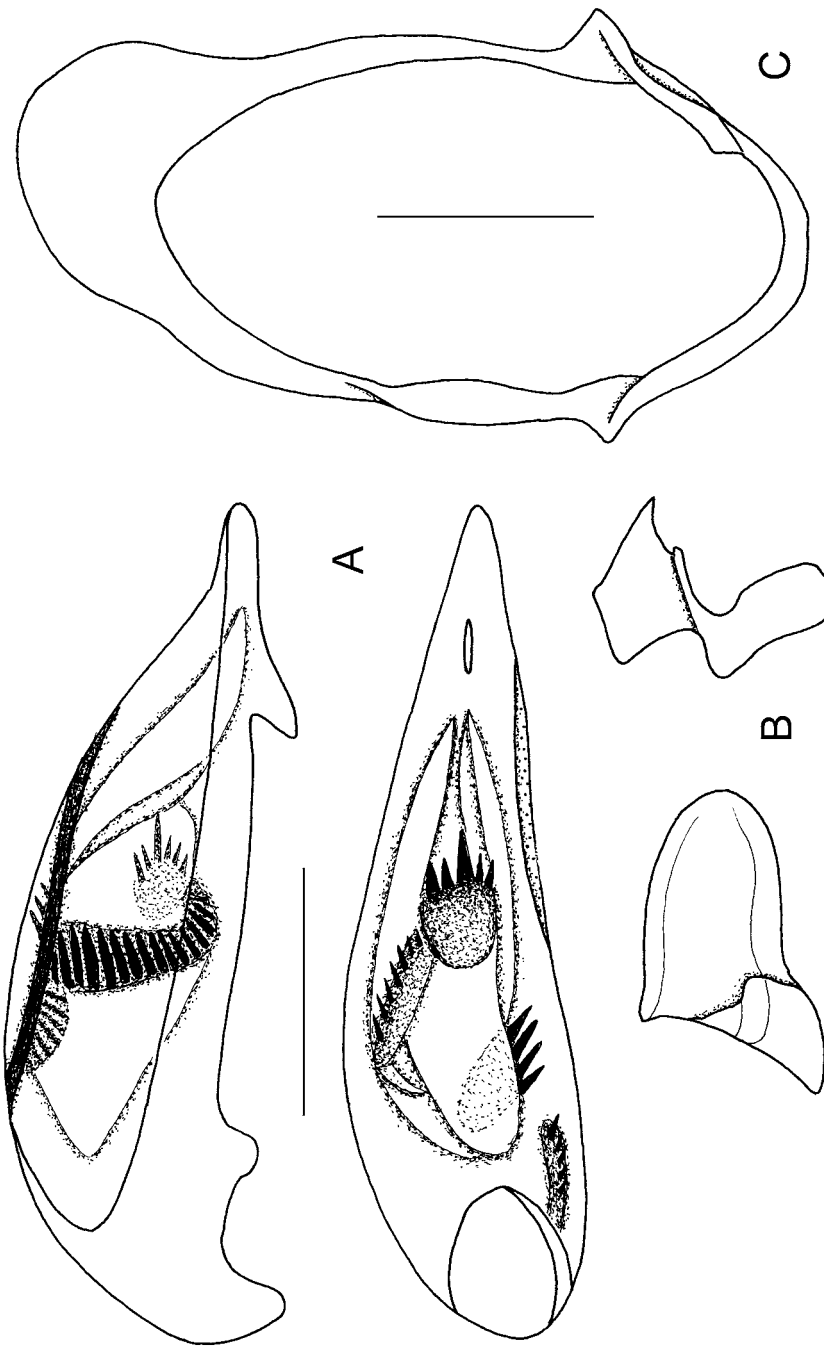



**Fig. 1**. *Colasidia harpago* n. sp., male genitalia. – **A**. Aedeagus, left side and from below. **B**. Left and right parameres. **C**. Genital ring. – Scales: 0.25 mm.

somewhat obscure, although certainly this new species belongs in the group of *C. oviceps* Baehr, *C. depressa* Baehr, and *C. rougemonti* (Morvan) and may be most closely related to both latter species.

### 4.2 *Colasidia harpago* **n. sp.** (Figs. 1, 3, 6, 9)

Holotype (♂): W-Malaysia: Lake Kenyir, 5 km SW dam, 50 km SW Kuala Terengganu, –350m, 7.–12. VII.2001, leg. A. SCHULZ & K. VOCK (SMNS).
Paratype: 1 ♂, same data (CBM).

#### Etymology

Latin "harpago" means "grappling-iron" or German "Enterhaken" and refers to the markedly hook-shaped aedeagus of this species.

#### Diagnosis

Small species with remarkably triangular head and small eyes; though in its external morphology it is similar to several other species, at once distinguished from all similarly shaped species by the uncinate aedeagus which is so far unique in the genus *Colasidia*.

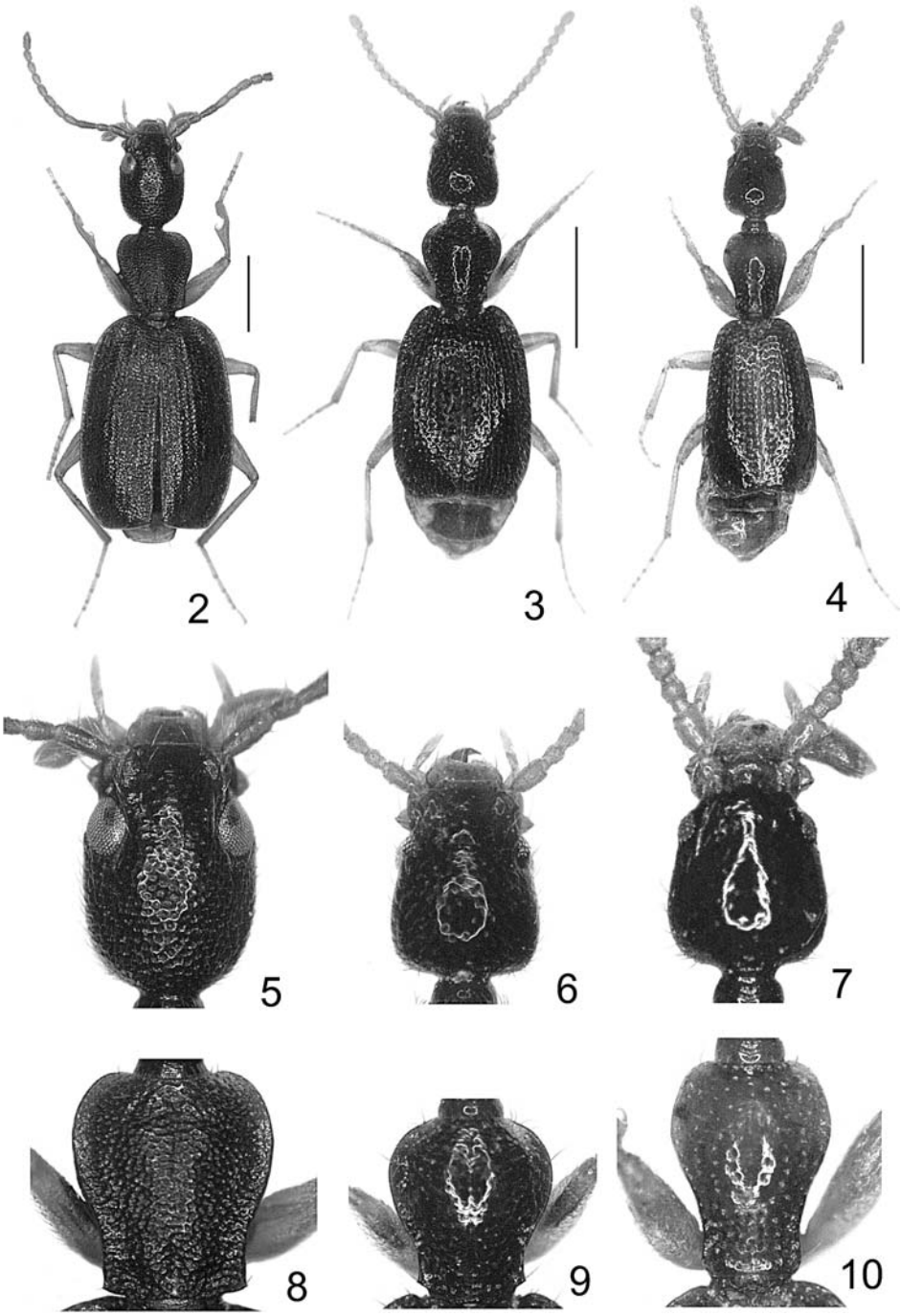
#### Description

Measurements. Body length: 3.20–3.25 mm; body width: 1.15–1.20 mm. – Ratios. Length/width of head: 1.44; length orbit/eye: 4.8–4.9; length/width of pronotum: 1.12–1.13; width widest diameter/base of pronotum: 1.54–1.55; width pronotum/head: 1.06–1.10; length/width of elytra: 1.40–1.42; width elytra/pronotum: 1.73–1.74.

Colour (Fig. 3). Dark piceous. Labrum, palpi, legs, and antennae yellow.

Head (Fig. 6). Elongate, remarkably triangular, distinctly widened behind eyes, orbits posteriorly very shortly rounded. Upper surface fairly convex. Frons with a shallow transverse impression. Eyes very small, laterally barely projecting, length slightly > $^1/_5$ of orbit length. Clypeus anteriorly almost straight, lateral angles (above base of antenna) slightly projecting. Clypeal suture deeply impressed. Labrum anteriorly excised, 6-setose, inner 4 setae little shorter, lateral margin densely pilose. Mandibles short. Mentum with unidentate, triangular tooth. Labium truncate. Maxillary palpus comparatively short, apex obtusely rounded. Terminal segment of labial palpus large and elongate. Antenna very short, not attaining middle of pronotum. Median antennomeres distinctly wider than long, 3rd antennomere much shorter than 1st, slightly longer than 2nd antennomere. Surface without traces of microreticulation, glossy. Punctuation coarse and moderately dense. Diameter of punctures about as large as their distance between them. Pilosity fairly dense, elongate, somewhat hirsute, moderately depressed, inclined anteriorly. Both supraorbital setae elongate, fairly well distinct from pilosity, posterior supraorbital setae situated far behind eye.

Pronotum (Fig. 9). Rather wide and short, fairly cordiform, slightly wider than head, widest in anterior third. Upper surface convex, in middle not impressed. Lateral margin strongly convex in anterior half, moderately sinuate in front of posterior angles, though basal quarter almost straight. Apex narrow, slightly excised, anterior angles convex, not projecting. Base rather narrow, laterally excised and somewhat oblique, basal angles very slightly projecting, finely denticulate. Lateral margin




**Figs. 2–10**. Habitus (2–4), head (5–7) and prothorax (8–10) of *Colasidia* spp. – **2**, **5**, **8**. *C. longicollis* n. sp. – **3**, **6**, **9**. *C. harpago* n. sp. – **4**, **7**, **10**. *C. adusta* n. sp. – Scales: 1 mm.

slightly raised, with distinct border line and with very narrow marginal channel. Median line distinct, though hardly sulcate. Prebasal grooves rather shallow. Anterior marginal seta elongate, situated at anterior fourth of pronotum, posterior seta rather short, situated right on basal angle. Surface without microreticulation, glossy, with fairly dense, rather coarse punctuation that is of similar size as punctuation of head. Diameter of punctures about as wide as their distance between them. Pilosity fairly dense, moderately elongate, somewhat hirsute, inclined anteriorly, oblique.

Elytra (Fig. 3). Rather wide, somewhat triangular, laterally regularly curved, widest in posterior third. Upper surface moderately depressed. Humeri rather narrow, projecting though rounded off. Apex wide, slightly convex, faintly oblique, slightly redressed to suture. Striae marked by rows of rather coarse punctures, punctuation fairly dense, coarse, regular. Third interval with three rather short fixed setae, these fairly difficult to recognise within the dense pilosity. Series of marginal pores difficult to detect when setae broken, apparently consisting of 8 basal, 3 postmedian, 6 apical pores, and 1 pore at apex of 3rd stria. Setae very elongate. Surface without microreticulation, glossy. Pilosity fairly dense, rather short, irregular, inclined posteriorly, fairly depressed.

Male genitalia (Fig. 1). Genital ring rather wide, oval-shaped, apex very wide, asymmetrical. Aedeagus rather short and stout, tapering from base to apex, with rather short and thick, at tip rather obtuse apex. Lower surface gently convex, at apical third with a strong, acute, recurved tooth. Internal sac in basal half with three very strongly sclerotised, remarkably denticulate, coiled sclerites, one running from top on left side to bottom, another on top of right side, and a third, narrower one at top behind both sclerites. Parameres quite dissimilar, left paramere rather elongate.

Female genitalia. Unknown.

Variation. Apart from slight differences in some body ratios, little variation noted.

## Distribution

South-eastern Malayan Peninsula. Known only from type locality.

## Collecting circumstances

Unknown.

## Relationships

Although in external shape and structure quite similar to other species from the Malayan Peninsula, e. g. *C. malayica* Basilewsky and *C. lagadiga* Morvan, this species differs and is unique in its remarkably hook-shaped aedeagus. Such crotchet-bearing aedeagi were so far unknown in the genus *Colasidia*, although they are quite common in the related genus *Gunvorita* Landin that occurs in Nepal, Sikkim and north-eastern India. As in *Colasidia* shape and structure of the aedeagus can differ substantially between species that are highly similar in external morphology, in this genus the aedeagus may not be as important for phylogenetic considerations as it is for distinction of species.

### 4.3 *Colasidia adusta* **n. sp.** (Figs. 4, 7, 10)

Holotype (♀): Thailand: Khao Lak N. P. Thone Chong Fa Fall, 100–300m, 6.–15.I.1998, leg. A. SCHULZ & K. VOCK (SMNS).

#### Etymology

The name refers to the posterolaterally infuscate elytra of this species.

#### Diagnosis

A very small species with remarkably triangular head and small eyes; it is easily distinguished from all similarly shaped species by its light colour and unusually distinct colour pattern, and by its sparse but very coarse punctuation that is even incomplete on the elytra.

#### Description

Measurements. Body length: 3.05 mm; body width: 0.85 mm. – Ratios. Length/width of head: 1.60; length orbit/eye: 4.25; length/width of pronotum: 1.35; width widest diameter/base of pronotum: 1.64; width pronotum/head: 1.0; length/width of elytra: 1.65; width elytra/pronotum: 1.72.

Colour (Fig. 4). Dirty yellowish to light brown, lateral parts and apex of elytra distinctly though ill delimited darker than disk. Labrum, palpi, legs, and antennae yellow.

Head (Fig. 7). Elongate, remarkably triangular, distinctly widened behind eyes, orbits posteriorly very shortly rounded. Upper surface fairly convex. Frons with two large, circular grooves. Eyes very small, laterally barely projecting, length slightly < $^1/_4$ of orbit length. Clypeus anteriorly almost straight, lateral angles (above base of antenna) slightly projecting. Clypeal suture laterally with large, deep grooves. Labrum anteriorly excised, 6-setose, inner 4 setae little shorter, lateral margin densely pilose. Mandibles very short. Mentum with unidentate, triangular tooth. Labium truncate. Maxillary palpus comparatively short, apex obtusely rounded. Terminal segment of labial palpus large and elongate. Antenna very short, not attaining middle of pronotum. Median antennomeres much wider than long, 3rd antennomere much shorter than 1st, not significantly longer than 2nd antennomere. Surface without traces of microreticulation, very glossy. Punctuation fine and very sparse. Pilosity sparse, fairly elongate, somewhat hirsute, moderately depressed, inclined anteriorly. Both supraorbital setae elongate, fairly well distinguished from pilosity, posterior supraorbital setae situated far behind eye.

Pronotum (Fig. 10). Narrow and elongate, little cordiform, as wide as head, widest in anterior third. Upper surface convex, in middle not depressed. Lateral margin moderately convex in anterior half, very gently sinuate in front of posterior angles, basal third almost straight. Apex fairly wide, slightly excised, anterior angles convex, slightly projecting over middle. Base narrow, laterally somewhat oblique, basal angles not projecting, not denticulate, obtuse at tip. Lateral margin barely raised, with inconspicuous border line, almost without any marginal channel. Median line distinct, though hardly sulcate. Prebasal grooves barely recognizable. Both anterior marginal setae broken, situated at anterior fourth of pronotum, posterior seta fairly elongate, situated right on basal angle. Surface without any traces of microreticulation, highly glossy, with rather sparse, though very coarse punctuation

that is by far coarser than punctuation of head. Diameter of punctures almost as wide as their distance between them. Pilosity sparse, moderately elongate, somewhat hirsute, inclined anteriorly, oblique.

Elytra (Fig. 4). Narrow and elongate, slightly widened towards apex though not markedly triangular. Humeri rather wide, projecting, though rounded off. Lateral margin little curved throughout, elytra widest in posterior fifth. Upper surface in middle rather depressed. Apex comparatively wide, almost straight, remarkably oblique and redressed to suture. Striae marked by very coarse punctures, but not impressed, punctuation sparse, very coarse, regular, though punctures becoming finer laterally and towards apex, apex almost glabrous. Third interval with three fairly elongate erect setae which are well recognizable within the rather inclined pilosity. Series of marginal pores difficult to detect because almost all setae broken, apparently consisting of 8 basal, 3 postmedian, 6 apical pores, and 1 pore at apex of 3rd stria. Length of setae unknown. Surface without any traces of microreticulation, very glossy. Pilosity sparse, fairly elongate, regular, inclined posteriorly, fairly depressed.

Male genitalia. Unknown.

Female genitalia. Stylomere 2 short with obtuse apex, with 1 elongate ventral ensiform seta near base, one large and stout dorsal ensiform seta, and a nematiform seta arising from a large groove in apical third of median surface. Apex of stylomere 1 asetose.

Variation. Unknown.

### Distribution

Southern Thailand. Known only from type locality.

### Collecting circumstances

Unknown.

### Relationships

This species is not only unique, because it is the first record of the genus *Colasidia*, and generally of Leleupidiini, from Thailand, but likewise in its shape, reduced punctuation, and colouration. Although the male genitalia are yet unknown, certainly it can be predicated that this species is a very derived one referring to its phylogenetic status.

## 5 Recognition of the newly described species

For *C. harpago* n. sp. of which males are available, identification is rather easy with aid of the figures of the aedeagus when compared with those in BAEHR (1997): The aedeagi of all described species of *Colasidia* are so characteristic that hardly mistakes are possible when the figures are carefully compared. However, identification of females is still difficult, unless they are associated with males, because many species are very similar in certain external characters. Hence, whenever females can be associated with males, male genitalia should be examined.

Although the aedeagus of *C. harpago* n. sp. is very characteristic and the figure should be self explanatory, this species and *C. adusta* n. sp. are inserted in the most recent key for the Oriental species of the genus (BAEHR 1997). Because the New Guinean and Australian species received a separate key (BAEHR 2004), the older key can still be used without losing information.

For *C. longicollis* n. sp. of which only the female holotype is at hand, only external characters can be used, and in this species, which is very similar in colour, size, body shape, and structure of surface, to related species, measurements and ratios are most useful for differentiation from the latter species. For the benefit of the reader, ratios used in the monograph (BAEHR 1997) for three most similar species thus are repeated for comparison in a table.

## *Colasidia longicollis* n. sp.

In the key (BAEHR 1997: 614) caption 5 is easily reached which leads to the three most similar species. As caption 5 – is ambiguous when *C. longicollis* is included, the reader should use Tab. 1 below for comparison. In particular body size, relative length of head in combination with relative eye length, and length/width ratio of pronotum are discriminating this species from the other three ones.

**Tab. 1**. Measurements and ratios of species of the *oviceps*-group of the genus *Colasidia*. – L = body length (in mm); l/w h = length/width of head; l o/e = length of orbit/length of eye; l/w pr = length/width of pronotum; w d/b = width widest diameter/base of pronotum; w pr/h = width of pronotum/width of head; l/w el = length/width of elytra; w el/pr = width of elytra/width of pronotum.

| Species | L | l/w h | l o/e | l/w pr | w d/b | w pr/h | l/w el | w el/pr |
|---|---|---|---|---|---|---|---|---|
| *oviceps* | 5.7–5.75 | 1.40–1.42 | 2.20–2.25 | 1.09–1.11 | 1.43–1.49 | 1.23 | 1.47–1.53 | 1.77–1.83 |
| *depressa* | 5.05–5.25 | 1.42–1.52 | 2.6–2.7 | 1.11–1.15 | 1.38–1.46 | 1.19–1.30 | 1.43–1.46 | 1.87–1.89 |
| *rougemonti* | 5.2 | 1.71 | 2.8 | 1.18 | 1.44 | 1.26 | 1.42 | 1.94 |
| *longicollis* | 5.2 | 1.48 | 2.25 | 1.24 | 1.38 | 1.18 | 1.44 | 2.0 |

## *C. harpago* n. sp. and *C. adusta* n. sp.

Both species can be immediately recognised by their colouration or their unique aedeagus, respectively. In the key (BAEHR 1997: 614) they key out at caption 13 which immediately leads to caption 14 and again to caption 16 (provided the sentence about shape of aedeagus in caption 16 is omitted). Caption 16 then may be changed as following:

**16** Size very small, < 3.5 mm; aedeagus either with distinct crotchet on lower surface at a distance from apex (Fig. 1), or unknown, in latter case colouration light and elytra bicolourous (Fig. 3) . . . . . **16a**

– Size larger, > 4 mm; aedeagus either with straight, very elongate, unarmed apex, or unknown; colouration always unicolourous . . . . . **16b**

**16a** Colour dirty yellow to light brown and elytra bicolourous being laterally and at apex considerably darkened; punctuation on head very sparse and much finer than on pronotum (Figs. 7, 10); aedeagus unknown. – Thailand . . . . . ***adusta* n. sp.**

– Colour uniformly piceous; punctuation on head denser and as coarse as on pronotum (Figs. 6, 9); aedeagus with conspicuous crotchet on lower surface at a distance from apex (Fig. 1). – Malayan Peninsula . . . . . ***harpago* n. sp.**

**16b** Head shorter and wider, wider than pronotum; pronotum shorter, basal angles barely projecting; elytra shorter, more triangular and depressed, punctuation less coarse; aedeagus unknown. – Singapore . . . . . ***malayica*** Basilewsky
– Head longer and narrower, distinctly narrower than pronotum; pronotum longer, basal angles markedly projecting; elytra longer, less triangular and rather convex, punctuation coarser; aedeagus with straight, very elongate apex. – North Queensland, Australia . . . . . ***monteithi*** Baehr

## 6 Remarks

The present description of three additional new species of the genus *Colasidia* once more demonstrates the extremely little knowledge that we possess about taxonomic diversity and distribution of this genus. Certainly it requires very specialised sampling methods to obtain specimens of these soil- and litter inhabiting small insects. Though even if those methods are employed, the number of specimens sampled is usually very low and hence, of most of the presently 35 described species (including the three ones described in the present paper) we only know very few or even single specimens. Certainly, this scarcity is due to the secrete habits of all species, but it also suggests remarkably restricted ranges of most, if not all species which, on the other hand, are dependent on the absence of flying wings of all species. As a consequence, we can expect many more species, provided sampling in Southeast Asia is intensified and appropriate methods are used. The first record of a leleupidiine species from Thailand demonstrates that such intensified collecting efforts could fill up some, if not all, of the striking gaps in the distribution of the genus.

The remarkably disjunct but very wide range of the genus *Colasidia* is still a problem and we do not know whether this is due to inadequate sampling, whether it matches real distribution gaps that we are unable to explain at present. Although the genus ranges from the Malayan Peninsula in the northwest to northeastern Australia, any records were so far missing from any other country in mainland Asia, the southern three fourths of Borneo, Java, the Lesser Sunda Islands, Sulawesi and the Moluccas, the Philippines, and the whole western half of New Guinea.

One of the new species from Malaysia, namely *C. longicollis* n. sp., belongs to a group of species that probably form the basic stock of the genus, but the other new Malaysian species, *C. harpago* n. sp., is highly apomorphic not only in its external morphology (small size, remarkably triagonal head, small eyes, convex pronotum, regular punctuation of elytra), but also in its very unusual male aedeagus. At least in its external morphology, *C. adusta* n. sp. from Thailand is even more apomorphic which is expressed in its likewise very small size, triagonal head, very small eyes, and convex pronotum, but even more so in its very sparse punctuation on head and pronotum, the even sparser and coarser, and moreover imcomplete punctuation of elytra, and the quite unusual colouration. Unfortunately, we do not yet know its male genitalia. The common occurrence of very primitive and very specialised species at the same place even complicates any considerations about biogeographic history of the genus as outlined in the monograph (Baehr 1997). I even guess that no final conclusions should be drawn further, until much more sampling work is done within the genus' range.

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