

**Three new species of the genus *Aristolebia* Bates from South Asia  
(Coleoptera: Carabidae: Lebiini)**

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**Taxonomy, description, new species, Coleoptera, Carabidae, Lebiini, *Aristolebia*, Malaysia, Laos**

**Abstract.** Three new species of the Lebiine genus *Aristolebia* Bates, 1892 are described from South Asia: *A. bastai* sp. nov. and *A. flavipennis* sp. nov. from Malaysia, and *A. laosensis* sp. nov. from Laos. All three species are closely related to *A. apicalis* Baehr, 2010 from Sumatra, but differ in certain external characters as body size, relative shape of prothorax and elytra, and somewhat also in colour of the dorsal surface and the appendages. For the species of the *apicalis*-group a key is provided.

INTRODUCTION

Through courtesy of J. Bašta (Brno) I received a few specimens of the Lebiine genus *Aristolebia* Bates, 1892 from Malaysia, which represent two closely related new species that are described in the present paper. At an insect exchange days I also detected another specimen from Laos which likewise represents a new species. All three species are closely related to *A. apicalis* Baehr, 2010, described from Sumatra.

The recorded range of the genus *Aristolebia* extends from India to China, The Philippines, Sumatra, certain Lesser Sunda Islands, Sulawesi, Timor, New Guinea, and northern Australia (Csiki 1932, Jedlička 1963, Darlington 1968, Moore et al. 1987, Lorenz 1998, 2005, Baehr 2004, 2010, 2011, 2015, Baehr & Reid in press, Kirschenhofer 2012). Presently 15 species have been described. Most species so far are only available in small numbers and some are even known only from the holotype, which is most probably caused by the almost unrecorded habits of the species and, as a consequence, by the apparently inadequate sampling methods employed. Of the new species likewise only one species is available by two specimens, both other species just by the holotype.

The few records and the apparent difficulties in sampling of specimens suggest that the distribution of the species, as well as the number of existing species, is yet inadequately known, and that additional species may be detected in future within, but probably also outside of, the hitherto recorded range of the genus occurrence.

MATERIAL AND METHODS

In the taxonomic survey standard methods are used. For dissecting the genitalia, the specimens were relaxed overnight in a jar under moist atmosphere, then cleaned for a short

while in 10% KOH. The habitus photograph was obtained by a digital camera using ProgRes CapturePro 2.6 and AutoMontage and subsequently was processed with Corel Photo Paint 14.

Measurements were taken using a stereo microscope with an ocular micrometer. Body length was measured from apex of labrum to apex of elytra, length of pronotum along midline, length of elytra from the most produced part of the humerus to the most produced part of the apex.

The holotypes of the new species are stored in the working collection of the author in Zoologische Staatssammlung, München (CBM), a paratype in the collection J. Bašta, Brno (CBB).

### **Genus *Aristolebia* Bates, 1892**

*Aristolebia* Bates, 1892: 428 - for additional citations see Baehr (2011).

**Type species:** *Aristolebia quadridentata* Bates, 1892 (by monotypy).

**Diagnosis.** Main diagnostic characters of the genus *Aristolebia* are: rather wide, depressed body, large, laterad remarkably protruded eye, semicircular pronotum without definite apical angles, acute or short-spined external angle of the elytra, concave excision of the apex of the elytra, presence of two preapical excisions at the inner surface of the mesotibia in males, apparently also by the odd-shaped, very strongly sclerotized aedeagus and the usually similarly odd-shaped and comparatively very large genital ring of the males, and the wide, more or less triangular, aetose gonocoxite 2 of the female.

In many other characters, *Aristolebia* is rather similar to the large genus *Lebia* Latreille, 1802 (*sensu lato*), with which *Aristolebia* certainly is closely related.

The three new species are rather closely related and have in common some characters of the mouth parts which are unimportant for their differentiation. Therefore they are enumerated below and not explicitly mentioned in the descriptions:

Labrum anteriorly straight, 6-setose, surface depressed. Mentum with shallow, apically slightly rounded convexity. Glossa elongate, polysetose at apex, paraglossae wide, foliaceous, as long as glossa and fused to it, densely setose at margin. Galea with wide, rather depressed last segment that is extremely densely pilose. Lacinia large, with very elongate terminal hook and rather dense row of teeth at the inner margin. Palpi of normal size, very sparsely pilose. Mentum aetose, but submentum with a very elongate seta at either side. Mandibles short and wide, markedly curved inwards.

### ***Aristolebia bastai* sp. nov.**

(Figs. 1, 4)

**Type material.** Holotype (♂) labelled: "MALAYSIA, W. KELANTAN 70 km NE of Hus Musang Mt. Chamah, 1900m Kampong Perias 17.iv.-9.v.2014 Petr Čechovský lgt.", (CBM). Paratype: (1 ♀) labelled: "MALAYSIA, W. Kelantan, Kg. Tunku, Mt. Noring Timur, 150 km S. of Jeli, 21.2.-14.3.2013, 1200m, P. Čechovský lgt.", (CBB).

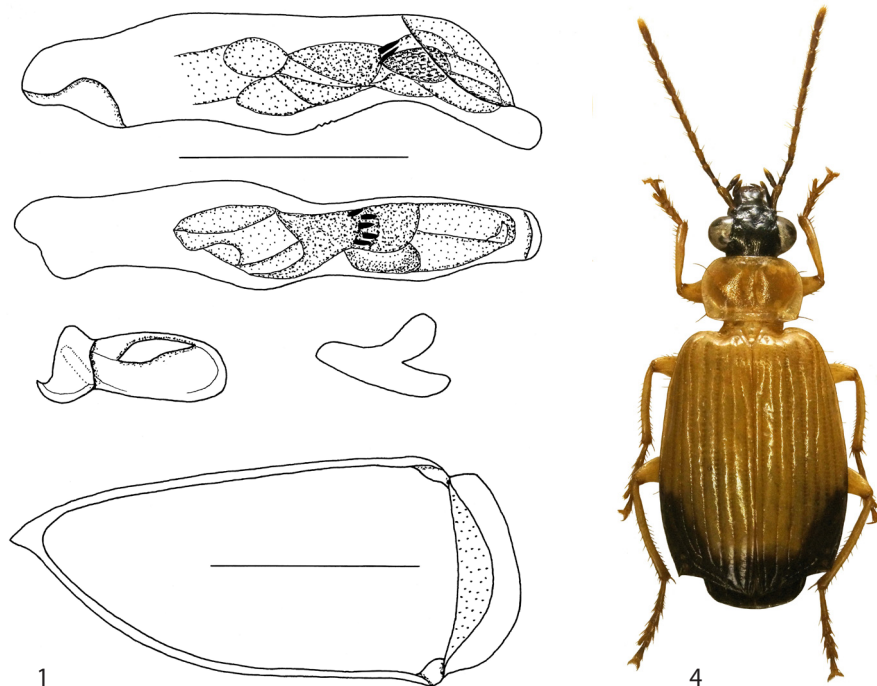


Fig. 1. *Aristolebia bastai* sp. nov. Male genitalia: aedeagus, left side, upper surface, left and right parameres, genital ring. Scale bars: 1 mm.

Fig. 4. *Aristolebia bastai* sp. nov. Habitus. Body length 6.9 mm.

**Description.** Measurements and ratios. Body length: 6.9-7.8 mm; width: 3.3-3.55 mm. Width/length of pronotum: 1.50-1.56; width of pronotum/width of head: 1.12-1.14; width of base/apex of pronotum: 1.61-1.62; length/width of elytra: 1.42-1.46; width of elytra/width of pronotum 1.79-1.81.

Colour (Fig. 4). Head including clypeus and labrum black; mandibles black with reddish-piceous apex; apical palpomere of labial palpus and two apical palpomeres of maxillary palpus black, the basal palpomeres red; apex of both palpi pale. Antenna rufous but 2<sup>nd</sup> and 3<sup>rd</sup> antennomeres dark. Pronotum pale red with wide, pale yellow lateral margin. Elytra pale red, with horseshoe-shaped black apex. Legs uniformly pale red. Lower surfaces pale red, except the black head and the four apical abdominal sterna.

Head (Fig. 4). Of moderate size. Eye very large, semicircular, laterad remarkably protruded, orbit barely perceptible. Neck with fairly shallow transverse impression. Antenna slender and elongate, surpassing the base of the pronotum by c. three antennomeres. Three basal antennomeres glabrous, median antennomeres c. 2.5 x as long as wide. Labrum impunctate, with distinct, isodiametric microreticulation. Clypeus barely punctate, with fairly distinct microreticulation. Frons with shallow, triangular impression behind clypeal suture and a shallow, longitudinal impression in middle, almost devoid of wrinkles, with rather sparse, coarse punctures. Microreticulation fine and very superficial, isodiametric, surface glossy.

Pronotum (Fig. 4). Comparatively narrow. Anterior half about semicircular, widest slightly in front of middle, moderately narrowed towards base, therefore base much wider than apex. Apex straight to very slightly concave, apical angle widely rounded; lateral margin in apical half convex, in basal half oblique and almost straight, basal angle slightly more than rectangular, slightly obtuse at tip; base in middle produced, laterally slightly convex. Both apex and base margined, basal margin in middle faint. Anterior transverse sulcus shallow, situated close to apex. Median line moderately shallow, incomplete. Posterior transverse sulcus deeply impressed. Lateral margin anteriorly moderately wide, widened and widely explanate towards base, marginal sulcus shallow, margin little upturned. Disk gently convex. Anterior lateral seta situated slightly behind anterior third, slightly removed from margin, posterior seta situated at basal angle. Surface of disk with fine, irregular, transverse striae, with few, scattered punctures, and with fine, very superficial microreticulation, glossy.

Elytra (Fig. 4). Moderately elongate, rather widened apicad, widest about at apical third, upper surface convex but on disk slightly depressed. Humerus evenly rounded, lateral margin slightly convex throughout. External apical angle and sutural angle both denticulate. Apex oblique and gently concave. Striae complete, well impressed, barely to extremely finely crenulate. Intervals considerably raised. 3<sup>rd</sup> interval with two setiferous punctures, situated at basal third and apical sixth, and attached to the inner margin of the 3<sup>rd</sup> stria. 15-16 marginal setiferous punctures present, series slightly interrupted in middle. Intervals with an irregular row of sparse, fine punctures and with superficial, isodiametric to slightly transverse microreticulation which is arranged in irregularly transverse rows, surface rather glossy. Metathoracic wings fully developed.

Lower surface. Prosternal process with a seta at middle. Lower surface with sparse but elongate, slightly declined pilosity. Metepisternum elongate, c. twice as long as wide at anterior margin. Terminal sternum in male with c. 8, in female with c. 10 elongate setae, in female also the margin with a series of shorter setae.

Legs. Of average size. 4<sup>th</sup> tarsomeres of all legs widened, very deeply (c. 4/5 of tarsomere) excised, with dense tarsal brush. 5<sup>th</sup> tarsomere with two rows of several setae on lower margin. Tarsal claws very densely dentate with 7-8 small teeth of about equal length at either side. 1<sup>st</sup> - 3<sup>rd</sup> tarsomeres of male protarsus biserially squamose.

Male genitalia (Fig. 1). Aedeagus and genital ring weakly sclerotized, because the holotype seems to be rather freshly hatched. Genital ring large, slightly longer than the aedeagus, rather narrow, asymmetric, with small, acute apex. Aedeagus moderately elongate, straight. Lower surface bisinuate, without pilosity, but in middle with some transverse sulci. Orificium short, gently turned to the left side. Apex short and wide, somewhat spatulate. Internal sac with two moderately sclerotized and finely denticulate, slightly twisted plates and few smaller, less sclerotized folds. On the dorsal side in middle with a transverse, slightly curved ring of c. 6 small sclerotized teeth. Parameres very dissimilar, aetose, the left one elongate, the right one odd-shaped.

Female gonocoxites. Not dissected due to the incomplete sclerotization, because the female seems to be rather freshly hatched.

Variation. Apart from the difference in body size, minor variation noted in relative length of elytra which is slightly shorter and wider in the female.

**Differential diagnosis.** Small species (in genus), characterized by the yellow or pale red elytra with semicircular, black apex. Distinguished from all species with the same colouration by lesser body size and some differences in shape of pronotum and elytra.

**Distribution.** West Malaysia.

**Etymology.** The name is a patronym in honour of J. Bašta (Brno, Czech Republic).

*Aristolebia laosensis* sp. nov.

(Figs. 2, 5)

**Type material.** Holotype (♂) labelled: "LAOS 31.V. - 4.VI.2004 35 km NE Vientiane , 50 m Lao Pako, N18°10, E102°52 E. Jendek & O. Šauša leg.", (CBM).

**Description.** Measurements and ratios. Body length: 9.4 mm; width: 4.1 mm. Width/length of pronotum: 1.50; width of pronotum/width of head: 1.18; width of base/apex of pronotum: 1.72; length/width of elytra: 1.49; width of elytra/width of pronotum 1.72.

Colour (Fig. 6). Head including clypeus and labrum black; mandibles black with reddish piceous apex; apical palpomere of labial palpus and two apical palpomeres of maxillary palpus black, the basal palpomeres red; apex of both palpi pale. Antenna uniformly rufous. Pronotum pale red with wide, pale yellow lateral margin. Elytra pale red, with horseshoe-

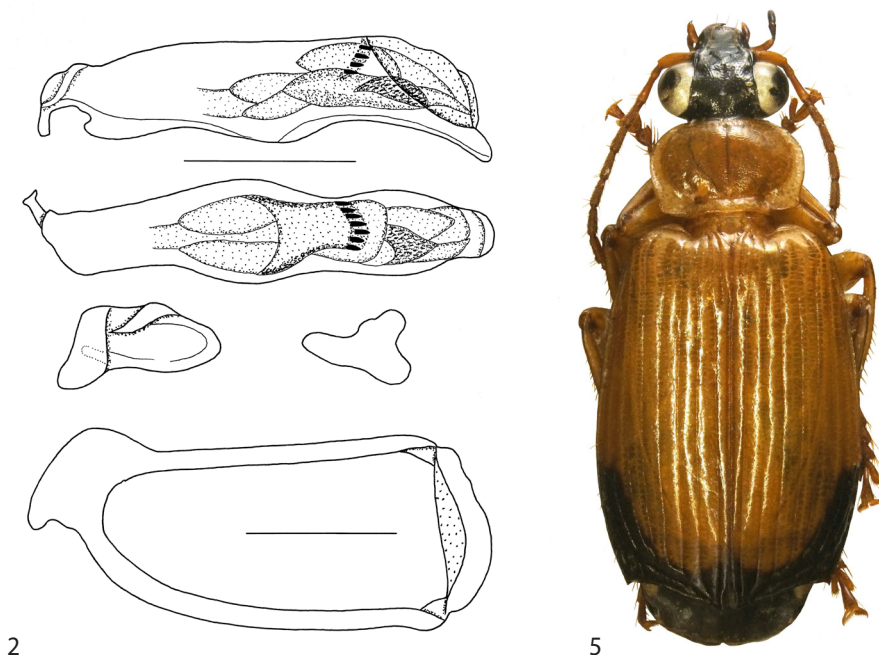


Fig. 2. *Aristolebia laosensis* sp. nov. Male genitalia: aedeagus, left side, upper surface, left and right parameres, genital ring. Scale bars: 1 mm.

Fig. 5. *Aristolebia laosensis* sp. nov. Habitus. Body length 9.4 mm.

shaped black apex. Legs uniformly pale red. Lower surfaces pale red, except the black head and the four apical abdominal sterna.

Head (Fig. 5). Of moderate size. Eye very large, semicircular, laterad remarkably protruded, orbit barely perceptible. Neck with fairly shallow transverse impression. Antenna slender and elongate, surpassing the base of the pronotum by > three antennomeres. Three basal antennomeres glabrous, median antennomeres c. 2.75 x as long as wide. Labrum finely punctate and with distinct, isodiametric microreticulation. Clypeus with fine, irregularly spaced punctures and fairly distinct microreticulation. Frons with shallow triangular impression behind clypeal suture and a shallow, longitudinal impression in middle, with some indistinct, irregular, longitudinal wrinkles, and with coarse punctures which on the neck become more regular. Microreticulation fine and very superficial, isodiametric, surface rather glossy.

Pronotum (Fig. 5). Comparatively narrow. Anterior half about semicircular, widest slightly in front of middle, moderately narrowed towards base, therefore base much wider than apex. Apex slightly concave, apical angle widely rounded, lateral margin an apical half convex, in basal half oblique and almost straight, basal angle slightly more than rectangular, slightly obtuse at tip; base in middle produced, laterally slightly convex. Apex indistinctly margined, base margined except in middle. Anterior transverse sulcus shallow, situated close to apex. Median line moderately shallow, incomplete. Posterior transverse sulcus deeply impressed. Lateral margin anteriorly moderately wide, widened and widely explanate towards base, marginal sulcus shallow, margin little upturned. Disk gently convex. Anterior lateral seta situated slightly behind anterior third, slightly removed from margin, posterior seta situated at basal angle. Surface of disk with fine, irregular, transverse striae, with few, scattered punctures, and with fine, very superficial microreticulation, glossy.

Elytra (Fig. 5). Rather elongate, slightly widened apicad, widest about at apical third, upper surface convex but on disk slightly depressed. Humerus evenly rounded, lateral margin slightly convex throughout. External apical angle and sutural angle both denticulate. Apex oblique and gently concave. Striae complete, well impressed, extremely finely crenulate. Intervals considerably raised. 3<sup>rd</sup> interval with two setiferous punctures, situated at basal third and apical sixth and attached to the inner margin of the 3<sup>rd</sup> stria. 16-17 marginal setiferous punctures present, series slightly interrupted in middle. Intervals with an irregular row of sparse, fine punctures and with superficial, isodiametric to slightly transverse microreticulation which is arranged in irregularly transverse rows, surface rather glossy. Metathoracic wings fully developed.

Lower surface. Prosternal process with a seta at middle. Lower surface with sparse but elongate, slightly declined pilosity. Metepisternum elongate, > 2 x as long as wide at anterior margin. Terminal sternum in male with c. 8 elongate setae.

Legs. Of average size. 4<sup>th</sup> tarsomeres of all legs widened, very deeply (c. 4/5 of tarsomere) excised, with dense tarsal brush. 5<sup>th</sup> tarsomere with two rows of several setae on lower margin. Tarsal claws very densely dentate with c. 10 small teeth of about equal length on either side. 1<sup>st</sup> - 3<sup>rd</sup> tarsomeres of male protarsus biserially squamose.

Male genitalia (Fig. 2). Both, aedeagus including parameres, and genital ring heavily sclerotized. Genital ring large, longer than the aedeagus, rather narrow, parallel sided, with large, very asymmetric apical part. Aedeagus moderately elongate, straight, in middle

suddenly widened. Lower surface bisinuate, without pilosity, but in middle with some transverse sulci. Orificium short, gently turned to the left side. Apex short and wide, somewhat spatulate. Internal sac with two moderately sclerotized and finely denticulate, slightly twisted plates and few smaller, less sclerotized folds. On the dorsal side in middle with a transverse, slightly curved ring of c. 8 small sclerotized teeth. Parameres very dissimilar, asetose, the left one elongate, then right one odd-shaped.

Female gonocoxites. Unknown.

Variation. Unknown.

**Differential diagnosis.** Moderately large species (in genus), characterized by pale rufous elytra with dark apex. Distinguished from the similarly patterned species *A. apicalis* Baehr, 2010 from Sumatra by slightly lesser body size and laterally less convex pronotum, and from *A. bastai*, spec. nov. by larger size, uniformly red antenna, and slightly differently shaped and structured aedeagus.

**Distribution.** Laos. Recorded only from the type locality.

**Etymology.** The name refers to the occurrence of the species in Laos.

*Aristolebia flavipennis* sp. nov.

(Figs. 3, 6)

**Type material.** Holotype (♀) labelled: "MALAYSIA, W. Pahang 50 km NW. of Kuala Rompin, G. Keriung 9.-30.4.2008, 1200 m, P. Čechovský leg.", (CBM).

**Description.** Measurements and ratios. Body length: 8.5 mm; width: 3.8 mm. Width/length of pronotum: 1.59; width of pronotum/width of head: 1.20; width of base/apex of pronotum: 1.74; length/width of elytra: 1.47; width of elytra/width of pronotum 1.61.

Colour (Fig. 6). Head including clypeus and labrum black; mandibles black with reddish piceous apex; apical palpomere of labial palpus and two apical palpomeres of maxillary palpus black, the basal palpomeres red; apex of both palpi pale; antenna black but most of 1<sup>st</sup> antennomere yellow. Pronotum pale red with wide, pale yellow lateral margin. Elytra uniformly pale red. Legs pale red, knees, apex of tibiae, and tarsi black. Lower surfaces almost uniformly pale red, except parts of head.

Head (Fig. 6). Of moderate size. Eye very large, semicircular, laterad remarkably protruded, orbit barely perceptible. Neck with fairly shallow transverse impression. Antenna slender and elongate, surpassing the base of the pronotum by c. three antennomeres. Three basal antennomeres glabrous, median antennomeres c. 2.6 x as long as wide. Labrum sparsely punctate, with distinct, isodiametric microreticulation. Clypeus barely punctate, with fairly distinct microreticulation. Frons with shallow, slightly oblique frontal furrows behind the clypeal suture, near eye and in middle with shallow, irregular impressions; almost devoid of wrinkles, with moderately dense, coarse punctures. Microreticulation fine and very superficial, isodiametric, surface glossy.

Pronotum (Fig. 6). Moderately wide. Anterior half about semicircular, widest slightly in front of middle, moderately narrowed towards base, therefore base much wider than

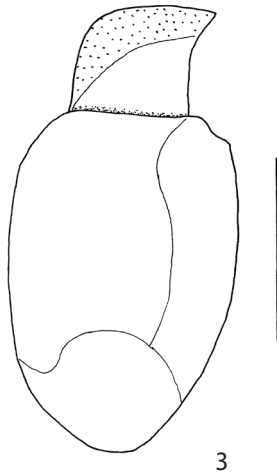


Fig. 3. *Aristolebia flavipennis* sp. nov. Female gonocoxites 1 and 2. Scale bar: 0.5 mm.

Fig. 6. *Aristolebia flavipennis* sp. nov. Habitus. Body length 8.5 mm.



apex. Apex slightly concave, apical angle widely rounded, lateral margin an apical half convex, in basal half oblique and almost straight, basal angle slightly more than rectangular, slightly obtuse at tip; base in middle produced, laterally slightly convex. Both apex and base completely margined. Anterior transverse sulcus shallow, situated close to apex. Median line rather deep, incomplete. Posterior transverse sulcus deeply impressed. Lateral margin anteriorly moderately wide, widened and widely explanate towards base, marginal sulcus shallow, margin little upturned. Disk rather convex. Anterior lateral seta situated slightly behind anterior third, slightly removed from margin, posterior seta situated at basal angle. Surface of disk with fine, irregular, transverse striae, with few, scattered punctures, and with fine, extremely superficial microreticulation, glossy.

Elytra (Fig. 6). Moderately elongate, rather widened apicad, widest about at apical third, upper surface convex but on disk slightly depressed. Humerus evenly rounded, lateral margin slightly convex throughout. External apical angle and sutural angle both denticulate. Apex oblique and gently concave. Striae complete, well impressed, finely crenulate. Intervals considerably raised. 3<sup>rd</sup> interval with two setiferous punctures, situated at basal third and apical sixth and attached to the inner margin of the 3<sup>rd</sup> stria. 16 marginal setiferous punctures present, series slightly interrupted at middle. Intervals with an irregular row of sparse, rather



coarse punctures and with superficial, isodiametric microreticulation, surface rather glossy. Metathoracic wings fully developed.

Lower surface. Prosternal process with a seta at middle. Lower surface with sparse but elongate, slightly declined pilosity. Metepisternum elongate, > twice as long as wide at anterior margin. Terminal sternum in female with c. 10 elongate setae, also the margin with a series of shorter setae.

Legs. Of average size. 4<sup>th</sup> tarsomeres of all legs widened, very deeply (c. 4/5 of tarsomere) excised, with dense tarsal brush. 5<sup>th</sup> tarsomere with two rows of several setae on lower margin. Tarsal claws very densely dentate with 9 small teeth of about equal length at either side. Squamosity of male protarsus unknown.

Male genitalia. Unknown.

Female gonocoxites (Fig. 3). Gonocoxite 1 large, elongate, without setae at the apical rim. Gonocoxite 2 only partly sclerotized, the sclerotized part triangular, without any setae.

Variation. Unknown.

**Differential diagnosis.** Medium sized species (in genus), characterized by the uniformly reddish elytra without any dark pattern. Distinguished from *A. rubiginosa* Kirschenhofer, 2012 from north-eastern India and *A. rutilipennis* Baehr, 2015 from Vietnam by much lesser body size and wider pronotum.

**Distribution.** West Malaysia. Recorded only from the type locality.

**Etymology.** The name refers to the unicolourous yellow elytra.

**Tab. 1. Comparison of measurements and ratios of the species of the *apicalis*-group of the genus *Aristolebia*.**

N = Number of specimens measured, l = body length in mm, w/l pr = ratio width/length of pronotum, w pr/h = ratio width of pronotum/width of head, w b/a = ratio width of base/width of apex of the pronotum, l/w el = ratio length/width of elytra, w el/pr = ratio width of elytra/width of pronotum striae on the elytra.

	N	l	w/l pr	w pr/h	w b/a	l/w el	w el/pr
<i>apicalis</i>	2	9.9-10.2	1.53-1.56	1.23	1.60-1.61	1.43-1.47	1.67-1.69
<i>laosensis</i>	1	9.4	1.50	1.18	1.72	1.49	1.72
<i>bastai</i>	2	6.9-7.8	1.50-1.56	1.12-1.14	1.61-1.62	1.42-1.46	1.78-1.81
<i>flavipennis</i>	1	8.5	1.59	1.20	1.74	1.47	1.61

#### REVISED KEY TO THE SPECIES OF THE GENUS *ARISTOLEBIA* WITH UNICOLOUROUS YELLOW OR BROWN OR APICALLY DARK ELYTRA

1. Colouration of elytra almost uniformly yellow, light brown, or piceous .....2
- Distinct colour pattern present on the elytra .....6
2. Body size smaller, length < 8.5 mm. Malaysia, New Guinea, Australia: eastern Queensland .....3
- Body size larger, length > 12 mm. North-eastern India, North Vietnam, China .....4

3. The whole surface, including antennae and legs uniformly dirty yellow to pale red. New Guinea, Australia: eastern Queensland..... *wau* Darlington, 1968
- Head black, antenna black from 3<sup>rd</sup> antennomere; knees and tarsi black (Fig. 6). West Malaysia.....  
.....*flavipennis* sp. nov. 5
4. Colour almost uniformly piceous. China.....*prattiana* (Bates, 1889)
- Colour of elytra yellow or pale reddish, head black. North-eastern India, North Vietnam ..... 5
5. Pronotum largely black; all tibiae and meso- and metafemora black. North-eastern India .....  
.....*rubiginosa* Kirschenhofer, 2012
- Pronotum almost completely pale reddish, except middle of apex; all femora and tibiae yellow, only knees black. North Vietnam .....*rutilipennis* Baehr, 2015
6. Sutural angle of elytra rounded; tarsal claws with 5 small teeth on either side. Western Papua Indonesia: Vogelkop Peninsula ..... *capitis* Darlington, 1968
- Sutural angle of elytra angulate; tarsal claws with 7-9 small teeth at either side ..... 7
7. Elytra yellow or pale red, only the latero-apical margin narrowly black (Figs. 4, 5) ..... 8
- Colour pattern of elytra different ..... 10
8. Body size small, < 8.0 mm; 2<sup>nd</sup> and 3<sup>rd</sup> antennomeres dark; ratio width pronotum/head < 1.14, ratio width elytra/pronotum > 1.78; aedeagus in middle suddenly widened, internal sac on top with a row of c. 6 small teeth (Fig. 1). West Malaysia ..... *bastai* sp. nov.
- Body size larger, > 9.4 mm; antenna unicolourous yellow; ratio width pronotum/head > 1.18, ratio width elytra/pronotum < 1.72; aedeagus in middle suddenly widened, internal sac on top with a row of c. 8 small teeth (Fig. 2), or unknown. Sumatra, Laos ..... 9
9. Body size slightly larger, > 9.9 mm, pronotum slightly wider, ratio width/length > 1.53, with more convex lateral margin and comparatively narrower base, ratio base/apex < 1.61; aedeagus unknown. Sumatra .....  
.....*apicalis* Baehr, 2010
- Body size slightly smaller, 9.4 mm, pronotum slightly narrower, ratio width/length 1.50, with less convex lateral margin and comparatively wider base, ratio base/apex 1.72; aedeagus in middle suddenly widened, internal sac on top with a row of c. 8 small teeth (Fig. 2). Laos ..... *laosensis* sp. nov.
10. As caption 4. in key (Baehr 2011).

## REMARKS

In body shape and colouration the three new species are rather similar to *A. rubiginosa* Kirschenhofer, 2012 from north-eastern India, *A. rutilipennis* Baehr, 2015 from Vietnam, and *A. apicalis* Baehr, 2010 from Sumatra, and probably together with these species they form a distinct group within the genus. They differ either in body size, either in colouration, and also in some minor characters of the external and genital morphology.

The discovery of additional new species demonstrates that neither distribution nor number of species of the genus *Aristolebia* are adequately known. The reason for that deficiency is most probably the unsatisfactory knowledge about the habits of any species, so that specimens of *Aristolebia* are only casually collected and have not been, or presently cannot be, systematically sampled.

Although almost nothing has been reported, or can be learned from labels of recently collected specimens, about ecology or ethology of any *Aristolebia* species, it seems that they are arboreal (Darlington 1968) and may live primarily in rain forest. The wide and on the lower surface densely squamose 4<sup>th</sup> tarsomeres and the densely denticulate tarsal claws would support this assumption. It is unknown, however, whether they live preferably on logs or trunks, or rather on leaves, or in the canopy. Darlington suggested that at least the New Guinean species are diurnal, but he also states that some specimens have been sampled in light traps, which means that they are also roaming about at night. Nothing is known about feeding habits and food, but the very large, protruding eyes suggest that they may chase their prey by eyesight. This would support their diurnal habits.

ACKNOWLEDGEMENT. I am very grateful to J. Bašta (Brno, Czech Republic), for the kind loan and gift of some of the specimens.

## REFERENCES

- BAEHR M. 2004: A new species of the genus *Aristolebia* Bates from Thailand, with notes on some Papuan and Australian species (Insecta, Coleoptera, Carabidae, Lebiinae). *Spixiana* 27: 247-251.
- BAEHR M. 2010: New species of the genera *Lebia* Latreille and *Aristolebia* Bates from Indonesia (Coleoptera: Carabidae: Lebiini). 3<sup>rd</sup> supplement to "The genus *Lebia* Latreille in the Australian-Papuan Region". *Stuttgarter Beiträge zur Naturkunde A, Neue Serie* 3: 111-121.
- BAEHR M. 2011: Two new species of the genus *Aristolebia* Bates from the Lesser Sunda Islands (Insecta, Coleoptera, Carabidae, Lebiinae). *Tijdschrift voor Entomologie* 154: 215-222.
- BAEHR M. 2015: A new species of the genus *Aristolebia* Bates from North Vietnam (Insecta, Coleoptera, Carabidae, Lebiini). *Spixiana* 38: 43-47.
- BAEHR M. & C. REID (in press): On a collection of Carabidae from East Timor, with description of nine new species (Insecta: Coleoptera, Carabidae). *Records of the Australian Museum*
- BATES H. W. 1892: Viaggio di Leonardo Fea in Birmania e regione vicine. XLIV. List of the Carabidae. *Annali del Museo Civico di Storia Naturale de Genova* 32: 267-428.
- CSIKI E. 1932: Carabidae: Harpalinae VII. Pp. 1279-1598. In: Junk W. & Schenkling S. (eds.): *Coleopterorum Catalogus. Vol. III. Pars 124*. Berlin: W. Junk.
- DARLINGTON P. J. Jr. 1968: The Carabid Beetles of New Guinea. Part III. Harpalinae (continued): Perigonini to Pseudomorphini. *Bulletin of the Museum of Comparative Zoology* 137: 1-253.
- JEDLIČKA A. 1963: Monographie der Truncatipennen aus Ostasien. Lebiinae - Odacanthinae - Brachyninae (Coleoptera, Carabidae). *Entomologische Abhandlungen und Berichte aus dem Museum für Tierkunde Dresden* 28: 269-579.
- KIRSCHENHOFER E. 2012: Neun neue Arten der Gattungen *Aristolebia* Bates, 1892, *Coptodera* Dejean, 1825, *Dolichoctis* Schmidt-Göbel, 1846 und *Setolebia* Jedlička, 1941 (Coleoptera: Carabidae) aus der Orientalischen Region. *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen* 64: 45-60.
- LORENZ W. 2005: *Systematic List of extant Ground Beetles of the World (Insecta Coleoptera "Geadephaga": Trachpachidae and Carabidae incl. Paussinae, Cicindelinae, Rhyssodidae)*. Tutzing: printed by the author, 530 pp.
- MOORE B. P., WEIR T. A. & PYKE J. E. 1987: Rhyssodidae and Carabidae. Pp. 23-320. In: LAWRENCE J. F., MOORE B. P., PYKE J. E. & WEIR T. A.: *Zoological Catalogue of Australia, Volume 4. Coleoptera: Archostemata, Myxophaga and Adephaga*. Canberra: Australian Government Publishing Service, viii + 444 pp.

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