

The genus *Derosphaerus* Thomson (Coleoptera: Tenebrionidae: Cnadaloniini) in Borneo, with description of a new species¹

WOLFGANG SCHAWALLER

A b s t r a c t

Distributional data, photos of the beetles and drawings of the aedeagi (except *D. coeruleascens*) are given for all nine species of the tenebrionid genus *Derosphaerus* Thomson, 1858 (subfamily Stenochiinae Kirby, 1837, tribe Cnadaloniini Gistel, 1856) from Borneo. A new species (*D. emasicus n. sp.*) is described, which is unique in the genus because of the humped elytra and the mucronate female elytral apex. *D. metallescens* Fairmaire, 1893 is considered a new junior synonym of *D. viriditinctus* (Fairmaire, 1882). *Derosphaerus ericmatthewsi n. nom.* for *D. matthewsi* Schawaller, 2005 (not *D. matthewsi* Kaszab, 1987) is proposed. A key to the species is added.

K e y w o r d s : Coleoptera, Tenebrionidae, *Derosphaerus*, Borneo, taxonomy, new species, elytral mucro, distribution.

Z u s a m m e n f a s s u n g

Alle neun Arten der Tenebrioniden-Gattung *Derosphaerus* Thomson, 1858 (Unterfamilie Stenochiinae Kirby, 1837, Tribus Cnadaloniini Gistel, 1856) aus Borneo werden anhand von Funddaten, Fotografien der Käfer und Zeichnungen der Aedaeagi (außer *D. coeruleascens*) zusammenfassend dargestellt. Eine neue Art (*D. emasicus n. sp.*) wird beschrieben, deren gebuckelte Elytren und Mukro-ähnliche Elytrenspitze der Weibchen einmalig sind innerhalb der Gattung. *D. metallescens* Fairmaire, 1893 wird als neues jüngeres Synonym von *D. viriditinctus* (Fairmaire, 1882) angesehen. *Derosphaerus ericmatthewsi n. nom.* für *D. matthewsi* Schawaller, 2005 (nicht *D. matthewsi* Kaszab, 1987) wird vorgeschlagen. Ein Bestimmungsschlüssel der behandelten Arten ist angefügt.

C o n t e n t s

1	Introduction	289
2	The species	290
3	Key to the Bornean species of <i>Derosphaerus</i>	295
4	References	296

1 Introduction

The tenebrionid genus *Derosphaerus* Thomson, 1858 (subfamily Stenochiinae Kirby, 1837, tribe Cnadaloniini Gistel, 1856) contains about 100 species occurring in the southeastern Palaearctic (in a wider sense including China) and the Oriental, Australian-Papuan and Africa-Madagascar regions. KASZAB (1987) revised the Australian-Papuan species giving also a preliminary diagnosis of the genus, and SCHAWALLER (2007) summarized the few Himalayan species. The numerous congeners of the other regions have never been revised, therefore species identifications are problematic and the distributional range of most species is widely unknown. Moreover, newly collected species with peculiar characters might modify the generic limits (SCHAWALLER 2005). The aedeagi of the congeners differ not only in shape (compare Figs. 10–17), but also strongly vary in the relation of the aedeagal length/body length (between 13.5 % and 38 %, see Tab. 1).

Tab. 1. *Derosphaerus* spp. from Borneo, aedeagus length, body length, and relation aedeagus length/body length of selected specimens.

Species	Aedeagus length (mm)	Body length (mm)	Aedeagus length/ body length (percent)
<i>D. aeruginosus</i>	2.4	13.0	18.5
<i>D. coeruleascens</i>	—	15.0	—
<i>D. emasicus</i> n. sp.	3.4	12.5	27.2
<i>D. ericmatthewsi</i>	3.5	12.0	29.2
<i>D. fuscatus</i>	2.3	17.0	13.5
<i>D. hauschildi</i>	1.8	11.0	16.4
<i>D. morio</i>	3.6	18.0	20.0
<i>D. vicinus</i>	4.5	11.8	38.0
<i>D. viriditinctus</i>	1.9	12.5	15.4

GEBIEN (1914) presented a preliminary list and an identification key to the Bornean species of *Derosphaerus* un-

¹ Contributions to Tenebrionidae, no. 89. – For no. 88 see: Stuttgarter Beiträge zur Naturkunde A, Neue Serie 4 (2011).

der the name *Encyalesthus* Motschulsky, 1860, which is a junior synonym of *Derosphaerus* (KASZAB 1987). In the context of the description of a new species with an “unusual” elytral mucro in the females (Fig. 1), I take the chance and present newly collected material of all species from Borneo. Photographs of all Bornean species are added to facilitate subsequent identifications. Altogether, nine species of *Derosphaerus* are currently known from Borneo. An additional species with doubtful origin remains unnamed. A few records from Sumatra, Seram, Java, and the Philippines are also included.

Acronyms of depositories

BMNH	The Natural History Museum, London
CCZG	Collection Dr. CARSTEN ZORN, Gnoien
CRGT	Collection Dr. ROLAND GRIMM, Tübingen
HNHM	Hungarian Natural History Museum, Budapest
MHNG	Muséum d'Histoire Naturelle, Genève
NHMB	Naturhistorisches Museum, Basel
SMNS	Staatliches Museum für Naturkunde, Stuttgart
ZSM	Zoologische Staatssammlung, München

Acknowledgments

For the loan of material and hospitality during my visits for comparative studies I thank Dr. MICHAEL BALKE (Munich), MAX BARCLAY (London), Dr. MICHEL BRANCUCCI (Basel), Dr. ROLAND GRIMM (Tübingen), Dr. IVAN LÖBL (Geneva), Dr. OTTO MERKL (Budapest), Dr. EVA SPRECHER (Basel) and Dr. CARSTEN ZORN (Gnoien). JOHANNES REINBIZT (Stuttgart) prepared the photographs by using a Leica DFC 480 digital camera on a Leica MZ16 APO microscope, and subsequently processed the digital photographs using Leica LAS software. Thanks are due to the referees, Dr. ROLAND GRIMM and Dr. OTTO MERKL, for their helpful comments.

2 The species

Derosphaerus aeruginosus (Fabricius, 1787) (Figs. 2, 12)

Helops aeruginosus Fabricius, 1787.
Encyalesthus aeneus Pic, 1929 syn.

Studied material: Sumatra, Dolok Merangir, 1972–1991, leg. D. ERBER & W. DIEHL, 6 ex. SMNS. – Sumatra, Padang Panjang, 700–1000 m, 21.–25.I.1995, leg. C. ZORN, 2 ex. CCZG. – Borneo, without further data, 1 ex. SMNS. – Borneo, Sarawak, Pama near Kuching, 5.VIII.1993, without collector, 1 ex. CRGT. – Borneo, Sabah, Mt. Kinabalu, 28.V.1999, leg. Z. SMRŘ, 1 ex. SMNS. – Borneo, Sabah, Tambunan, 16.–19.I.2010, leg. R. GRIMM, 4 ex. CRGT. – Borneo, Sabah, Tenom, 300 m, 24.–25.I.2010, leg. R. GRIMM, 3 ex. CRGT. – Borneo, Sabah, S Tenom, Kuala Tomani, 25.I.2010, leg. R. GRIMM, 2 ex. CRGT. – Borneo, Sabah, Kudat, Bak Bak, 25.III.2007, leg. R. GRIMM, 4 ex. CRGT. – Borneo, Sabah, Danum Valley, 75 km SW Lahad Datu, 200–600 m, leg. M. HIERMEIER, 1 ex. CRGT. – Borneo, Kalimantan, Apokayan, Long Ampung, 700 m, 10.–25.II.1997, leg. C. & P. ZORN, 1 ex. SMNS.

Distribution: Southeastern Asia (Nepal, NE India, Laos, W Malaysia), Borneo (type locality), Sumatra, Java.

Derosphaerus coerulescens (Guérin-Méneville, 1830) (Fig. 4)

Helops coerulescens Guérin-Méneville, 1830.
Encyalesthus transversicollis Fairmaire, 1893 syn.
Encyalesthus coelestinus Fairmaire, 1896 syn.
Encyalesthus ceramensis Gebien, 1920 syn.
Encyalesthus robustus Pic, 1923 syn.

Studied material: Ceram [= Seram], without further data, 1 ♀ SMNS.

Remarks: *Encyalesthus transversicollis* Fairmaire, 1893, described from Borneo, was synonymized by ARDOIN (1969) based on the examination of the types. New material from Borneo, which is identical with the above listed female from Seram, is unknown to me. However, because of zoogeographical reasons, it might be possible that *D. transversicollis* (Fairmaire, 1893) is a valid species and not a synonym of *D. coerulescens* (Guérin-Méneville, 1830). Unfortunately, the type of *D. transversicollis* was not available for comparison.

Distribution: Buru (type locality), Seram, Borneo (?).

Derosphaerus emasicus n.sp.

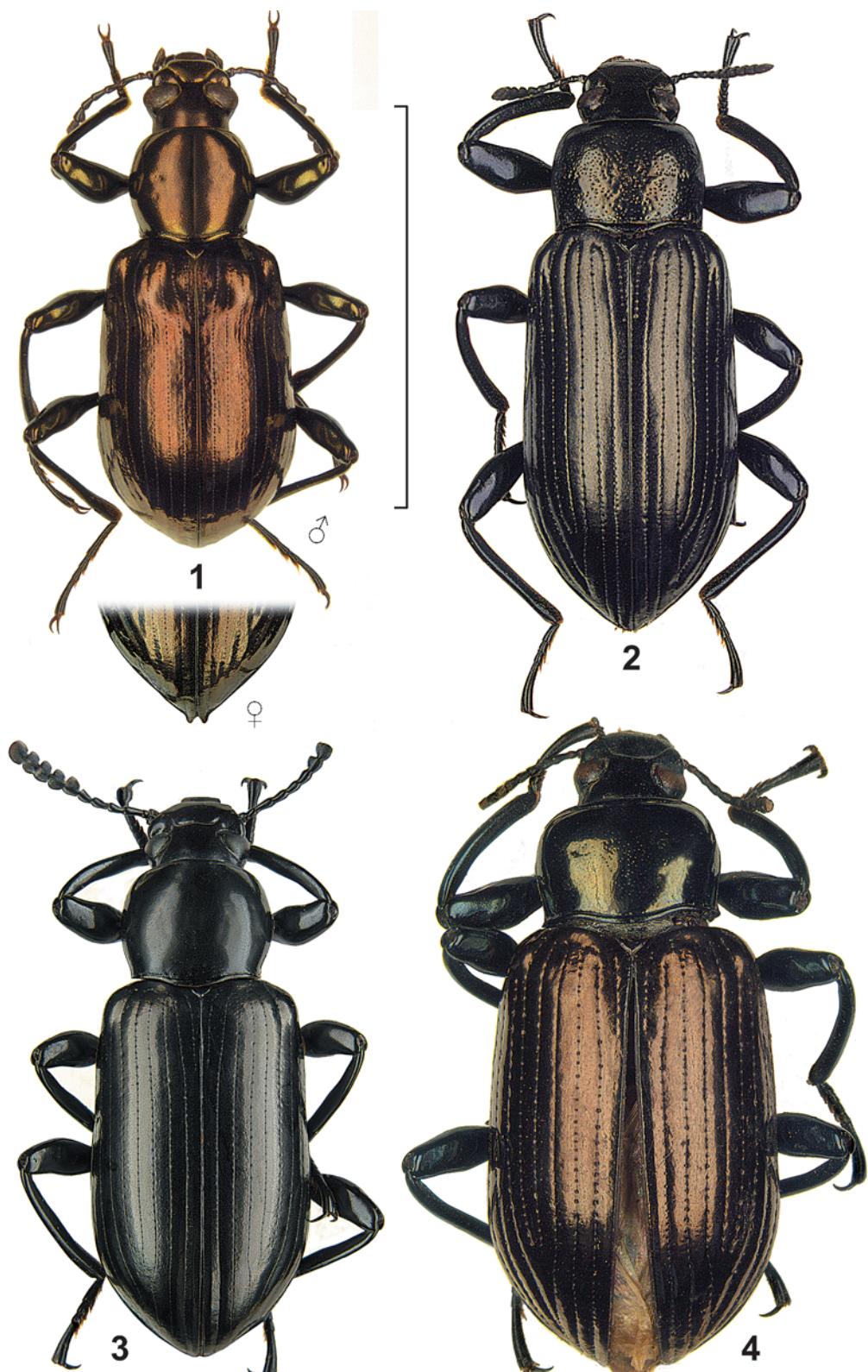
(Figs. 1, 16)

Holotype (♂): Borneo, Sabah, Crocker Range NP, Gunung Emas, 1600 m, 6.–18.VI.1996, leg. J. KODADA & F. CIAMPOR, SMNS.

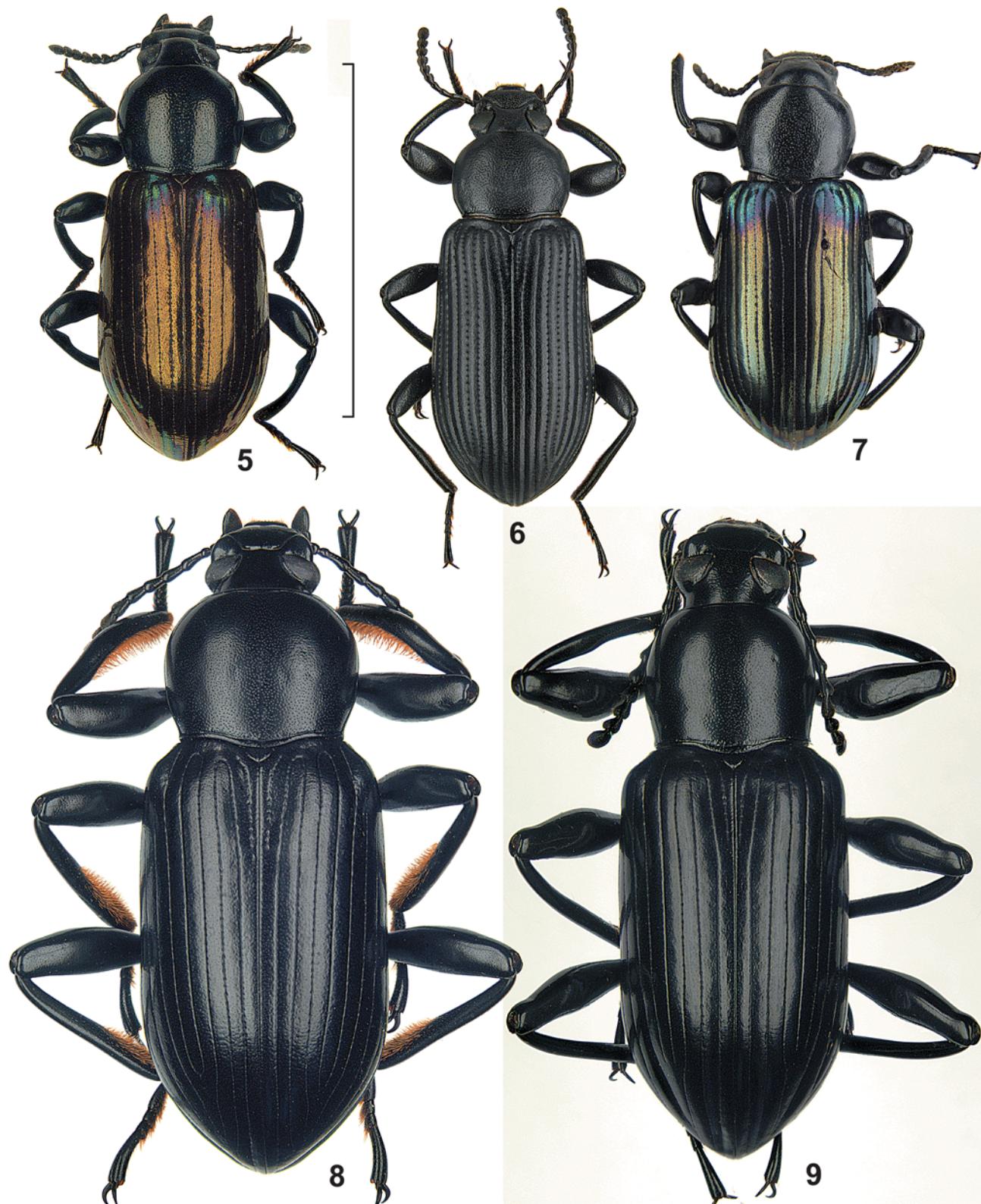
Paratypes: Borneo, Sabah, Sapulut, 23.VI.1998, leg. J. KODADA & F. CIAMPOR, 1 ♂ SMNS. – Borneo, Sabah, Kinabalu NP, Headquarters, 1300–1600 m, 23.VIII.1998, leg. D. BARTSCH & C. HÄUSER, 1 ♂ SMNS. – Borneo, Sabah, Kinabalu NP, Headquarters, 1560 m, 3.–13.VIII.1988, leg. A. SMETANA, 1 ex. MHNG. – Borneo, Sabah, Crocker Range NP, Gunung Emas, 15.–27.IV.1993, leg. I. JENIŠ & M. STRBA, 1 ex. ZSM. – Borneo, Sabah, Crocker Range NP, Gunung Emas, 500–1900 m, 6.–21.V.1995, leg. I. JENIŠ, 6 ex. ZSM, 2 ♀♀ SMNS, 2 ex. BMNH, 1 ex. HNBM. – Borneo, Sabah, Crocker Range, road Kota Kinabalu to Tambunan, Gunung Emas, 1650 m, 22.III.–6.IV.2000, leg. L. BOLM, 1 ex. NHMB. – Borneo, Sabah, Kinabalu NP, Headquarters, 1600 m, 8.–10.VII.1992, leg. E. HEISS, 1 ex. CRGT. – Borneo, Sabah, Kinabalu NP, Headquarters, 1550 m, 22.–25.V.2005, leg. R. GRIMM, 2 ex. CRGT. – Borneo, Sabah, Kinabalu NP, Headquarters, 1550 m, 28.XI.2006, leg. R. GRIMM, 2 ex. CRGT. – Borneo, Sabah, Kinabalu NP, Headquarters, 1550 m, 27.III.2007, leg. R. GRIMM, 5 ex. CRGT. – Borneo, Sabah, Kinabalu NP, Headquarters, 1550 m, 7.–9.I.2010, leg. R. GRIMM, 1 ex. CRGT.

Etymology: The new species is named after Gunung (= Mount) Emas in the Crocker Range, where the holotype has been collected.

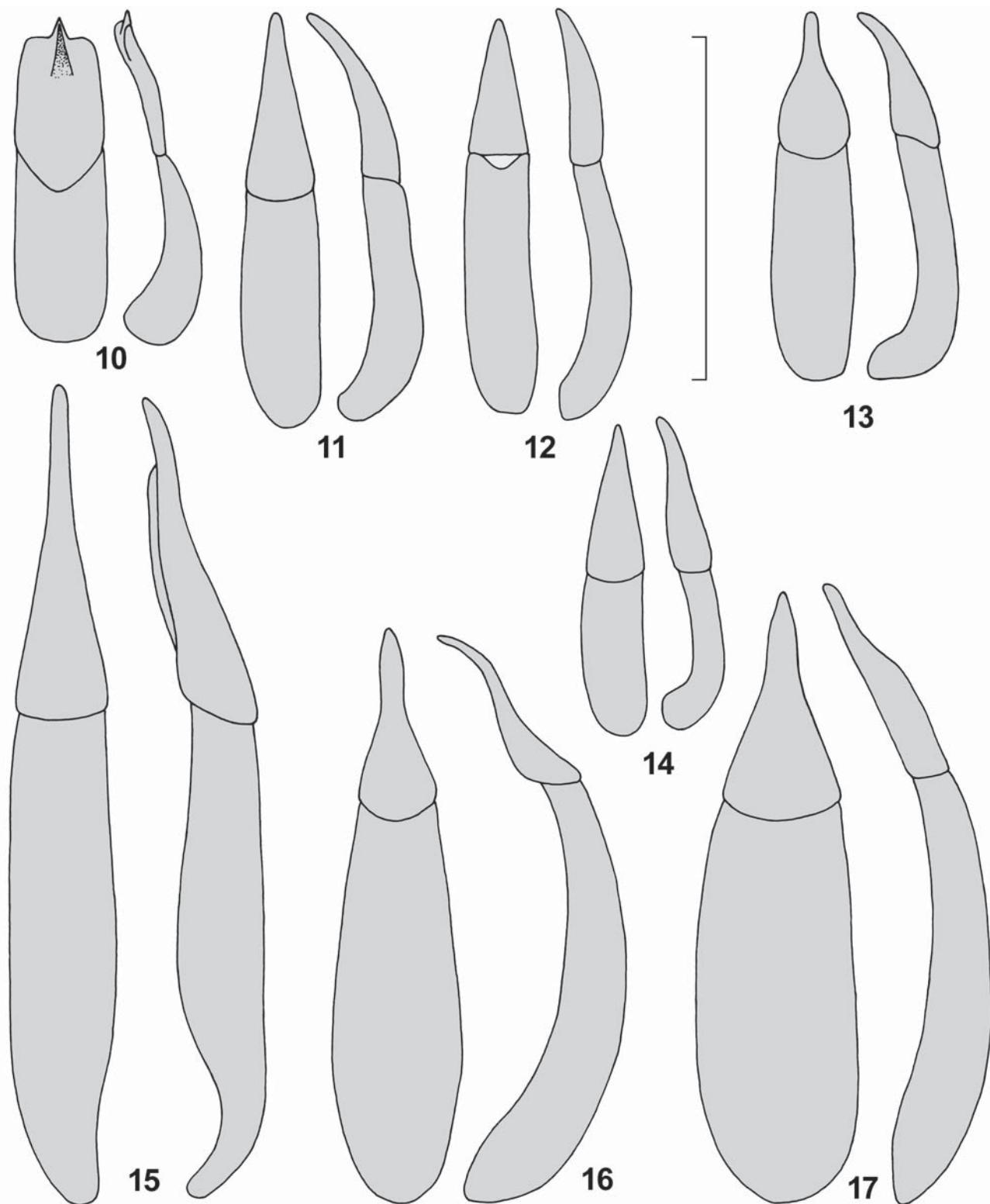
Description: Body length 12.0–13.0 mm. Body elongate, subparallel-sided; surface, including legs and antennae, uniformly shining olive-bronze metallic, without setation. Head with fine and equal punctation; genae not widened, fronto-clypeal suture deep; eyes not divided, distance between eyes on frons in both sexes as wide as length of eyes, frons without impressions or other



Figs. 1–4. *Derophaeus* spp. from Borneo, dorsal views. – 1. *D. emasicus* n. sp., ♂ holotype and ♀ elytral mucro. 2. *D. aeruginosus*. 3. *D. sp.* 4. *D. coeruleascens*. – Scale: 10 mm.



Figs. 5–9. *Derophaeus* spp. from Borneo, dorsal views. — 5. *D. viriditinctus*. 6. *D. vicinus*. 7. *D. hauschildi*. ♂ lectotype. 8. *D. fus-
catus*. 9. *D. morio*. — Scale: 10 mm.



Figs. 10–17. *Derosphaerus* spp. from Borneo, aedeagi, dorsal (left) and lateral (right) views. – 10. *D. viriditinctus*. 11. *D. fuscatus*. 12. *D. aeruginosus*. 13. *D.* sp. 14. *D. hauschildi*. 15. *D. vicinus*. 16. *D. emasicus* n. sp. 17. *D. morio*. – Scale: 2 mm.

modifications; supraorbital furrow deep; shape of antennomeres see Fig. 1, last antennomeres broader but not forming a distinctly separated club. Pronotum convex, about as broad as long, widest in the middle; lateral margins very fine and broadly interrupted in the middle; anterior corners not protruding, posterior corners not prominent; basal margin with broad border; dorsal surface with punctuation as on head; propleura smooth without punctuation; prosternal apophysis not prominent. Elytra longitudinal, sides somewhat widened posteriorly, basal part slightly humped in both sexes, tip of elytra mucronate, i. e. with small prolongation in females (Fig. 1); surface with nine rows of punctures without distinct striae and with an additional scutellar row; punctures of rows distinctly larger than those on pronotum, without setae; elytral intervals flat and with similar fine punctuation as on pronotum; epipleura complete, continuously narrowing to tip, anterior to tip with impression. Hind wings completely developed; metaventrite medially with longitudinal furrow, surface smooth. Abdominal ventrites with shining, wrinkled surface and distinct punctuation, with exposed intersegmental membranes; last ventrite not bordered and without groove in both sexes, and with distinct pale and adpressed setation in males. Legs long and with smooth surface, femora clavate, tibiae long and narrow and without longitudinal keels, shape of all tibiae similar in both sexes, in males middle tibia somewhat broadened apically; inner side of apices of all tibiae fringed with dense setation in males; tibial spurs short and not striking; anterior tarsomeres 1–4 not widened in males, tarsomere 5 of anterior tarsus somewhat longer than tarsomeres 1–4 combined, tarsomere 5 of posterior tarsus distinctly shorter than tarsomeres 1–3 combined, tarsomere 1 of posterior tarsus prolonged. Aedeagus (Fig. 16) extremely long in relation to body size (Tab. 1).

D i a g n o s i s : *Derosphaerus emasicus* n. sp. can be recognized by the uniform, shining olive-bronze metallic surface also on legs and antennae, the round and convex pronotum with very fine punctuation and widely interrupted lateral margin, the slightly humped elytra in the basal part, sexually dimorphic elytra with distinct mucro in the females, unmodified tibiae and denser inner setation of the tibiae in the males, sexually dimorphic last ventrite with dense setation in males, and the shape of the aedeagus. The humped elytra and the mucronate elytral apex of the females are unique in the genus, and also the striking metallic surface is characteristic (compare Fig. 1 and Figs. 2–9).

Derosphaerus ericmatthewsi n. nom.

(SCHAWALLER 2005: figs. 1–6, 21)

Derosphaerus matthewsi Schawaller, 2005 (not *D. matthewsi* Kaszab, 1987).

S t u d i e d m a t e r i a l : Borneo, Sabah, 1 ex. ZSM.

H o m o n y m y : This species needs a new name, because it is not conspecific with *Derosphaerus matthewsi* Kaszab, 1987 from Australia. Unfortunately, the latter was overlooked when describing *D. matthewsi* Schawaller, 2005 from Sumatra.

R e m a r k s : In 2008, the above listed specimen was identified by the present author, unfortunately without registering all collecting data. According to M. BALKE (pers. comm.), this specimen cannot be found again in ZSM, so it is currently not possible to complete the label data.

D i s t r i b u t i o n : Sumatra (type locality), Borneo.

Derosphaerus fuscatus (Fairmaire, 1893)

(Figs. 8, 11)

Encyalesthus fuscatus Fairmaire, 1893.

Derosphaerus impunctatus Pic, 1923 syn.

S t u d i e d m a t e r i a l : Borneo, Sabah, Kampung Taka-la, Kinabatangan River, 5.VI.1998, leg. J. KODADA & F. CIAMPOR, 6 ex. SMNS. – Borneo, Sabah, Gum Gum, Lower Kinabatagan, VI.2005, leg. H. TAKANO & T. OWEN EDMUNDS, 2 ex. BMNH. – Borneo, Sabah, Kinabalu NP, Poring, 380 m, 9.–11.III.2007, leg. R. GRIMM, 1 ex. CRGT.

R e m a r k s : *D. fuscatus* and *D. morio* are similar in appearance, however, the sexually dimorphic tibiae, the depth of the fronto-clypeal sutures, the punctuation of the elytral intervals, and the shape and relative length of the aedeagi are different (compare Figs. 11 and 17).

D i s t r i b u t i o n : Sumatra (type locality), Borneo.

Derosphaerus hauschildi (Gebien, 1914)

(Figs. 7, 14)

Encyalesthus hauschildi Gebien, 1914.

S t u d i e d m a t e r i a l : Borneo [Sabah], Kinabalu, 1♂ syntype NHMB (collection FREY), designated herewith as lectotype. – Borneo [Sabah], Kinabalu, 2♀♀ syntypes (now paratypes) NHMB (collection FREY). – Borneo, Sarawak, Belaga, Long Linau, 17.–21.III.1990, leg. A. RIEDEL, 1♀ SMNS.

R e m a r k s : Similar as *D. viriditinctus* (Fairmaire, 1882), but somewhat smaller, with different aedeagus (compare Figs. 10 and 14), and without modified posterior tibia in males.

D i s t r i b u t i o n : Borneo (type locality).

Derosphaerus morio (Gebien, 1914)

(Figs. 9, 17)

Encyalesthus morio Gebien, 1914.

S t u d i e d m a t e r i a l : Borneo, Sabah, 20 km S Tenom, 600 m, 19.III.2007, leg. W. SCHAWALLER, 1 ex. SMNS. – Borneo, Sabah, near Keningau, fogging from *Melanolepis* sp., 18.II.2001, leg. A. FLOREN, 2 ex. CRGT.

D i s t r i b u t i o n : Borneo (type locality), W Malaysia.

Derosphaerus vicinus Pic, 1923
(Figs. 6, 15)

S t u d i e d m a t e r i a l: Java, without further data, 1 ex. NHMB (collection FREY) (det. ARDOIN, compared with type). – Borneo, Sabah, Kudat, 16.–17.V.2005, leg. R. GRIMM, 2 ex. CRGT. – Borneo, Sabah, Kudat, 14.–16.II.2006, leg. R. GRIMM, 3 ex. CRGT, 2 ex. SMNS. – Borneo, Sabah, Kudat, 25.–26.III.2007, leg. R. GRIMM, 1 ex. CRGT. – Borneo, Sabah, Kota Belud, 50 m, 24.III.2007, leg. R. GRIMM, 1 ex. CRGT.

R e m a r k s : The new material from Borneo shows no differences to the above mentioned specimen from Java, which was compared with Pic's type by ARDOIN. However, it might be possible, that *D. vicinus* Pic, 1923 is a junior synonym of the widespread *D. rotundicollis* (Laporte, 1840) (type locality Manille = Manila), and that also *D. interstitialis* Fairmaire, 1883 (type locality Saleyer Island) belongs to the *D. rotundicollis* species-group. *D. alutaceus* Fairmaire, 1882 (type locality Sumatra) is also similar in outer appearance, but the pronotum has no lateral border (with distinct border in *D. vicinus*).

D i s t r i b u t i o n : Java (type locality), Borneo.

Derosphaerus viriditinctus (Fairmaire, 1882)
(Figs. 5, 10)

Encyalesthus viriditinctus Fairmaire, 1882.

Encyalesthus metallescens Fairmaire, 1893 **n. syn.**

S t u d i e d m a t e r i a l: Sumatra, 1 paratype of *E. metallescens* NHMB (collection FREY). – Sumatra, Bengkulu, 20 km S Muko Muko, 16.VIII.1991, leg. D. ERBER, 2 ex. SMNS. – Borneo, Sabah, Sandakan, leg. BAKER, 1 ex. NHMB (collection FREY) (*E. metallescens* det. GEBIEN). – Borneo, Sarawak, Gunung Penrissen, 1000 m, 23.V.1994, leg. I. LÖBL & D. BURCKHARDT, 1 ♀ MHNG. – Borneo, Sarawak, Kuching, Reservoir Park, 8.IV.2009, leg. R. GRIMM, 1 ex. CRGT. – Borneo, Sabah, Tenom, 300 m, 24.–25.I.2010, leg. R. GRIMM, 1 ex. CRGT. – Borneo, Sabah, Crocker Range, road Kota Kinabalu to Tambunan, Gunung Emas, 1650 m, 22.III.–6.IV.2000, leg. L. BOLM, 1 ex. NHMB, 1 ex. SMNS. – Borneo, Sabah, Kinabalu NP, Poring, 500 m, 23.–24.XI.1996, leg. W. SCHAWALLER, 2 ex. SMNS. – Borneo, Sabah, Crocker Range, Apin Apin, 27 km NE Keningau, 700–800 m, 21.–22.III.2000, leg. M. HIERMEIER, 4 ex. CRGT, 1 ex. SMNS. – Borneo, Sabah, 24 km NE Keningau, Apin Apin, 500 m, 18.II.2006, leg. R. GRIMM, 1 ex. CRGT. – Borneo, Sabah, Tambunan, 16.–19.I.2010, leg. R. GRIMM, 1 ex. CRGT. – Borneo, Sabah, Crocker Range, Gunung Alab, VI.2007, leg. CHEW, 1 ex. CRGT. – E Bali, N Semarapura, SW Besakih, Menanga, 500 m, 12.XII.2007, leg. R. GRIMM, 1 ex. CRGT. – Philippines, Palawan, Port Barton, 150 m, 14.–18.XII.1990, leg. L. BOLM, 1 ex. SMNS.

R e m a r k s : I could not find true differences between specimens deposited under *Derosphaerus viriditinctus* (Fairmaire, 1882) or *D. metallescens* (Fairmaire, 1893) in various collections, and also the original descriptions do not provide convincing differences. Although I could not reexamine types of both taxa, I consider the latter as junior synonym. *D. viriditinctus* is characterized by the unusual shape of the aedeagus (Fig. 10) and by the male posterior tibia dilated in the mediobasal part (Fig. 5).

D. metalleascens is missing in the species list of the genus (KASZAB 1987), neither cited as valid species nor as synonym. *D. brevicornis* (Mäklin, 1863) from Indochina is similar in appearance, but the aedeagus is completely different and the male posterior tibia is not dilated.

D i s t r i b u t i o n : Sumatra (type localities of *D. viriditinctus* and *D. metalleascens*), Borneo, Bali, W Malaysia, Thailand, Palawan.

Derosphaerus sp.
(Figs. 3, 13)

S t u d i e d m a t e r i a l: Borneo, Sabah, Mt. Kinabalu, 600 m, 26.IV.1993, leg. P. HOFFMANN, 1 ex. CRGT.

R e m a r k s : The studied single male, blackish without metallic lustre, represents an additional species, which cannot be identified. The specimen was said to be collected at Mt. Kinabalu, but this species was not found by other skilled tenebrionid collectors in that region and even in other Bornean localities. Thus, this specimen might be mislabelled and is perhaps not from Borneo. It also differs from other Oriental species known to me. Because of the uncertain origin the single male is figured herein to facilitate subsequent identification, but is not described as a new species.

3 Key to the Bornean species of *Derosphaerus*

- 1 Dorsal surface dull or shining black, without metallic lustre.. **2**
- Entire surface or at least elytra with metallic lustre. **4**
- 2 Body length 10–12 mm; dorsal surface dull; elytra with punctural rows in shallow striae (Figs. 6, 15)..... ***D. vicinus***
- Body length 17–20 mm; dorsal surface shining; elytra with distinct striae without punctures. **3**
- 3 Clypeal suture deep; all male tibiae with dense setation apically at inner side; aedeagus small with regular triangular apicale (Figs. 8, 11)..... ***D. fuscatus***
- Clypeal suture weak; male tibiae without dense setation; aedeagus large with laterally excavate apicale (Figs. 9, 17).... ***D. morio***
- 4 Eyes large, with their major part on dorsal side of head, nearly touching each other on frons; male anterior tibiae sinuated at the inner side. ***D. ericmatthewsi***
- Eyes of normal size, situated on lateral part of head, interocular space wide; male anterior tibiae without modifications. ... **5**
- 5 Entire dorsal surface with metallic lustre..... **6**
- Only elytra with metallic lustre, head and pronotum black without metallic lustre. **8**
- 6 Pronotum with rough, partly confluent punctuation, surface somewhat wrinkled (Figs. 2, 12)..... ***D. aeruginosus***
- Pronotum with extremely fine, separated punctuation, surface smooth. **7**
- 7 Body length 12–13 mm; pronotum rounded, convex; interocular space smaller than eye diameter; elytra humped anteriorly, female elytra with mucronate apex; legs long (Figs. 1, 16). ***D. emasicus* n. sp.**
- Body length about 15 mm; pronotum subquadrate, flat, interocular space wider than eye diameter; elytra unmodified; legs of normal length (Fig. 4). ***D. coeruleescens***

- 8 Male posterior tibiae dilated in the mediobasal part; aedeagus with plate-like apicale (Figs. 5, 10).....*D. viriditinctus*
- Male posterior tibiae without modification; aedeagus with regular triangular apicale (Figs. 7, 14).*D. hauschildi*

4 References

- ARDOIN, P. (1969): Note synonymique (Col. Tenebrionidae). – Bulletin de la Société entomologique de France **74**: 124–127.
- GEBIEN, H. (1914): Die Tenebrionidenfauna Borneos. Erster Teil. – Sarawak Museum Journal (2) **5**: 1–58.
- KASZAB, Z. (1987): Die papuanisch-australischen Arten der Gattung *Derosphaerus* Thomson, 1858 (Coleoptera: Tenebrionidae). – Acta zoologica Academiae scientiarum hungaricae **33**: 41–85.
- SCHAWALLER, W. (2005): Three new tenebrionids (Coleoptera: Tenebrionidae) from Sumatra – New species or new genera? – Annales zoologici **55**: 565–569.
- SCHAWALLER, W. (2007): The genus *Derosphaerus* Thomson in the Nepal Himalayas (Coleoptera: Tenebrionidae). – Entomologica basiliensis **29**: 171–175.

Author's address:

Dr. WOLFGANG SCHAWALLER, Staatliches Museum für Naturkunde, Rosenstein 1, 70191 Stuttgart, Germany;
e-mail: wolfgang.schawaller@smns-bw.de

Manuscript received: 7.VI.2010, accepted: 2.VII.2010.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Stuttgarter Beiträge Naturkunde Serie A \[Biologie\]](#)

Jahr/Year: 2011

Band/Volume: [NS_4_A](#)

Autor(en)/Author(s): Schawaller Wolfgang

Artikel/Article: [The genus Derosphaerus Thomson \(Coleoptera: Tenebrionidae: Cnodialonini\) in Borneo, with description of a new species 289-296](#)