New and little known species of Tenebrionidae (Coleoptera) from Borneo (9)

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RESEARCH ARTICLE

New and little known species of Tenebrionidae (Coleoptera) from Borneo (9)

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Abstract

Nesocaedius borneensis **sp. n.** (Tenebrioninae Latreille, 1802: Opatrini Brullé, 1832) from Borneo is described. For some species already cited in a previously published checklist, exact data are given for Borneo for the first time. New locality data are provided for rarely found species.

Keywords: Malaysia, new records, new species Sabah, Sarawak.

Zusammenfassung

Nesocaedius borneensis **sp. n.** (Tenebrioninae Latreille, 1802: Opatrini Brullé, 1832) aus Borneo wird beschrieben. Für einige Arten, die in einer bereits veröffentlichten Checkliste aufgeführt werden, werden erstmals genauere Daten für Borneo angegeben. Neue Funddaten für bislang nur selten gefundene Arten werden angeführt.

Introduction

The genus *Nesocaedius* was established by Kolbe (1915). According to Grimm & Lillig (2020), the genus included six species until now. In this paper, a new species is described from Kalampunian Beach in north-eastern Borneo, near the "Tip of Borneo", Malaysia. Its congeners are psammophilic seashore tenebrionids and might feed on seaweed fungi or scavenge on seaside plants, but no detailed information has been reported (Ando & Yamasako 2015).

In the present ninth part of the series concerning new and little known species of Tenebrionidae from Borneo, exact data for some species cited from Borneo by Grimm & Schawaller (2021) are given for the first time, and new locality data are provided for rarely found species.

Masumoto (1993a, 1993b) revised the "Larger Flattened Species of Camariine Genera from Asia". There had been no new data about Bornean species so far, and therefore new data are listed herein.

Material and methods

Acronyms of depositories

CRG Dr. Roland Grimm collection, Neuenbürg, Germany (now in SMNS);

MZB Museum Zoologi Bogor, Indonesia; obtained by Royal Ontario Museum (ROM), Toronto, Canada (Dr. D. Chris Darling);

NHMUK Natural History Museum, London, UK (Mr. Maxwell Barclay);

SMNS Staatliches Museum für Naturkunde, Stuttgart, Germany (Dr. Arnaud Faille and Dr. Wolfgang Schawaller);

ZSM Zoologische Staatssammlung Munich, Germany (Dr. Michael Balke).

The species

Tenebrioninae Latreille, 1802
Amarygmini Gistel, 1856

Amarygmus (*Amarygmus*) *elegans* Bremer, 2002

Remarks

Amarygmus (*A.*) *elegans* was described from W. Malaysia (Bremer 2002) and was recorded also for Borneo (Bremer 2010), but this citation was based on an error (Bremer, pers. comm.).

Distribution

W. Malaysia (Bremer 2010; Bremer & Lillig 2014).

Amarygmus (*Amarygmus*) *genalis* Bremer, 2009

Material

Sabah, Danum Valley, 4°58′N/117°48′E, M. D. F. Ellwood, "*Parashorea tementella*, *Asplenium nidus*", Tembaling, 2: FogTray 4, 19.X.1999, 2 ex. (NHMUK).

[1] Article published posthumously.

Remarks

Amarygmus (*A.*) *genalis* was described from W. Malaysia (Bremer 2009) and was cited also from Sabah (Bremer 2010). No exact data from Borneo had been previously published.

Distribution

W. Malaysia, E. Malaysia/Sabah (Bremer 2010).

Amarygmus (*Amarygmus*) *silvester* Bremer, 2004

Material

Sabah, Mt. Kinabalu Nat. Park, Poring Hot Springs, 9–11.III.2007, R. Grimm leg., 1 ex. (CRG). – Sarawak, Kubah Nat. Park, Matang Wildlife Centre, 19–22.IX.2008, R. Grimm leg., 1 ex. (CRG). – Sarawak, Gunung Gading Nat. Park, 100–300 m, 4–7.IV.2016, R. Grimm leg., 1 ex. (CRG). – W. Kalimantan, Gunung Palung Nat. Park, Cabang Panti Res. Sta., 1e rainforest, 100–400 m, 1°15′S/110°05′E, 15.VI.–1.VII.1991, Darling, Rosichon & Sutrisno leg., 1 ex. (ROM).

Remarks

Amarygmus (*A.*) *silvester* was described from W. Malaysia and Sumatra (Bremer 2004) and was cited also from Sabah (Bremer 2010). No exact data from Borneo had been previously published.

Distribution

W. Malaysia, Sumatra, Borneo (Bremer 2010).

Diaperinae Latreille, 1802
Diaperini Latreille, 1802

Ceropria caesarea Gebien, 1925

Material

Sabah, Mt. Kinabalu Nat. Park, Poring Hot Springs, 525 m, 8–10.IV.2013, R. Grimm leg., 1 ♂, 1 ♀ (CRG).

Remarks

Ceropria caesarea was described from W. Malaysia (Gebien 1925) and was cited from Borneo without exact data (Masumoto 1995).

Distribution

Malaysia, Borneo (Masumoto 1995).

Hypoplaeini Billberg, 1820

Corticeus (*Cnemophloeus*) *cephalotes* (Gebien, 1913)

Material

Sabah, E Keningau, Bingkor, 30.III.2007, R. Grimm leg., 2 ex. (CRG). – Sabah, Tenom, 300 m, 24–25.I.2007, R. Grimm leg., 1 ex. (CRG).

Remarks

Corticeus (*C.*) *cephalotes* was already mentioned in the checklist of darkling beetles of Borneo (Grimm & Schawaller 2021), but up to now no exact data from Borneo had been published.

Distribution

India including Andaman Islands, Thailand, Vietnam, Taiwan, Philippines: Luzon, Palawan; Indonesia: Sumatra, Lombok; Australia, Comoros (Bremer 1999); E. Malaysia/Sabah (new record).

Tenebrioninae Latreille, 1802
Opatrini Brullé, 1832

Nesocaedius borneesis **sp. n.**
(Figs 1–4)

Type material

Holotype ♂: Kalampunian Beach, near "Tip of Borneo", 22.II.2014, leg. R. Grimm (CRG, now SMNS).

Paratypes: Same data as for holotype, 21 ex. CRG, 3 ex. SMNS. – Same locality as holo-type, but 22–23.I.2010, leg. R. Grimm, 3 ex. (CRG, now SMNS).

Etymology

Named after Borneo, where the type series was collected.

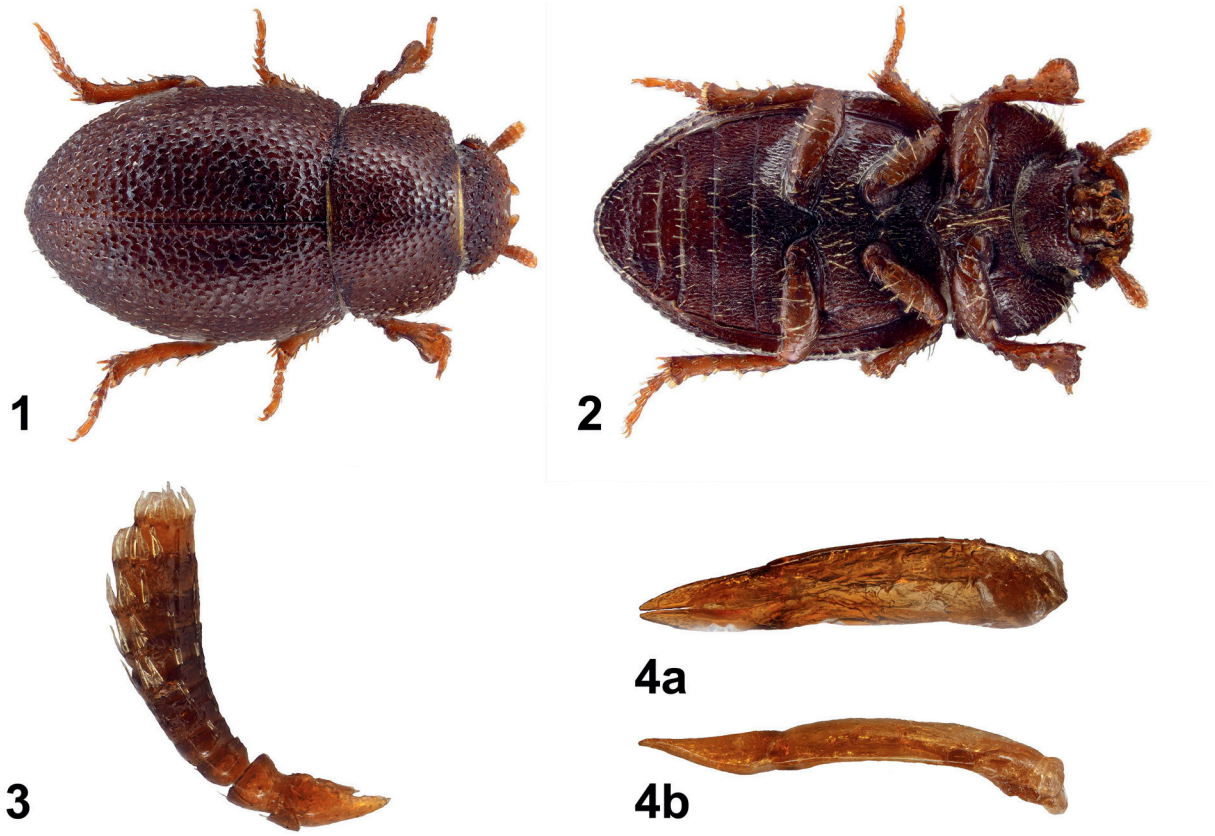
Description

Ovoid, distinctly convex above; body dark reddish brown to black; setae yellowish brown. Body length 2.8–3.2 mm, width 1.3–1.6 mm.

Head widest across genae, transversely elliptical, weakly convex, with granules dense, large and flat; clypeus deeply notched at apex, devoid of fronto-epistomal suture; genae basally arcuate at lateral ends. Apical maxillary palpomeres distinctly securiform, with external margin about three times as long as inner margin. Antenna (Fig. 3) 11-segmented, feebly clavate, compactly articulate; antennomeres 8–9 widest, 10th subquadrate, with dense sensory hairs at apex. Eyes constricted by genal canthus; each in narrowest part one facet wide. Mentum reverse trapezoidal. Gula deeply depressed.

Pronotum transverse, width/length ratio 1.59–1.92, widest near middle, anterior margin straight; lateral margins straight in the middle, arcuately narrowed to basal corners, basal margin entirely arcuate; anterior angles rounded; basal angles obtusely arcuate; disc distinctly convex, with compact, flattened granules. Scutellum invisible. Prosternal process rhombic, depressed in middle, irregularly tuberculate.

Elytra oval, strongly convex, weakly rounded at sides, widest near middle; disc irregularly and densely granulate, bearing short and irregular setae apically at posterior end; granules almost subtriangular and moderately erect; lateral margins with irregularly serrate granules throughout.



Figs. 1–4. *Nesocaedius borneensis* **sp. n.**, body length 2.8–3.2 mm. – **1**. Dorsal view. **2**. Ventral view. **3**. Antenna. **4**. Aedeagus in dorsal (**a**) and lateral (**b**) view.

Ventral side densely granulate, irregularly setiferous; prothoracic hypomera unevenly flattened, sparsely and minutely tuberculate, with dense and long setae along lateral margins. Mesoventrite lower than coxae. Metaventrite short, as long as first abdominal ventrite, weakly convex, irregularly granulate, and longitudinally depressed in the middle. Abdominal ventrites densely granulate.

Legs of fossorial type, robust. Tibiae irregularly tuberculate; protibiae dilated, explanate and flattened, with sinuate and setiferous outer margin and shallowly arcuate inner margin. Femora short and very thick, irregularly setaceous.

Aedeagus: see Fig. 4.

Diagnosis

The known species of the genus are quite similar. Of the six hitherto known species, four occur in Southeast Asia (Grimm & Lillig 2020): *N. insularis* Ando & Yamasako, 2015 (Bali), *N. schultzei* Kolbe, 1915 (Philippines), *N. taiwanus* Shibata, 1979 (Taiwan) and *N. vermiculatus* Shibata, 1979 (Taiwan). According to Ando & Yamasako (2015), *N. schultzei* and *N. taiwanus* have eye at narrowest part of the combined width of two facets. *Nesocaedius insularis* is characterized, among other characters, by the obviously produced genal process (Ando & Yamasako 2015: fig. 1). *Nesocaedius vermiculatus* has, according to Shibata (1979), the elytra with irregular striae that are rather distinct on the basal half, formed by vermiculate granules.

Stenochiinae Kirby, 1837
Cnodalonini Gistel, 1856

Borneocamaria laticornis (Waterhouse, 1882)

Material

Sabah, Poring Hot Springs, 380 m, 9–11.III.2007, leg. R. Grimm, 1ex. (CRG). – Sabah, Tenom, 300 m, 25.I.2010, leg. R. Grimm, 1ex. (CRG). – Sabah, Kinabalu Nat. Park, Headquarter, 1600 m, 20.VIII.1998, leg. D. Bartsch & C. Häuser, 1 ex. (SMNS). – Sabah, Tawau Hillls Park, Tawau River, 8.VI.1998, J. Kodada & F. Ciampor, 1 ex. (SMNS).

Distribution

Borneo, Indonesia: Sumatra (Masumoto 1993).

Cerocamptus malayanus (Fairmaire, 1893)

Material

Sabah, SW Sandakan, Kuamat, 700 m, 5°13′N/117°30′E, 10.IV.2014, leg. S. Chew [Bosuang], 1 ex. (CRG).

Distribution

Borneo (Masumoto 1993).

Hoploedipus bidentulus Fairmaire, 1898

Material

Sarawak, Santubong Penisula, Permai Rainforest Resort, 30–150 m, 10–14.II.2012, R. Grimm leg., 1 ex. (CRG). – Same locality, but 29.III.–3.IV.2016, R. Grimm leg., 1 ex. (CRG).

Remarks

Hoploedipus bidentatus was described by Fairmaire (1898) from Singapore and described again by Gebien (1917), as *H. acanthosternum*, from Matang/Sarawak. The synonymy was proposed by Kaszab (1984).

Distribution

Singapore, E. Malaysia/Sarawak (Kaszab 1984).

Picocamaria geniculata (Pic, 1915)

Material

Sabah, Crocker Mts., Gunung Emas, 500–900 m, 6–21.V. 1986, leg. I. Jenis, 1 ex. (ZSM). – Sabah, Mt. Trus Madi, 1100 m, 1–15.IV.2005, leg. K. Martini , 2ex. (CRG). – Sabah, Crocker Range, Gunung Emas Highland Resort, 11–13.V.2002, leg. T. Kothe, 1 ex. (CRG). – Sabah, Mt. Kinabalu Nat. Park, headquarter, 1550 m, 7–9.I.2010, leg. R. Grimm, 1 ex. (CRG). –Sabah, Kinabalu Nat. Park, headquarter, 1500 m, 19–28.III.2001, leg. S. Löffler, 1 ex. (SMNS).

Distribution

E. Malaysia/Sabah (Masumoto 1993b).

Picocamaria subparallela (Pic, 1915)

Material

Sabah, Mt. Trus Madi, 1100 m, 1–15.IV.2005, leg. K. Martini, 2 ex. (CRG). – Sabah, 16 miles point from Keningau, 7–8.IV.1991, leg. O. Furata, 1 ex. (ZSM). – Sabah, Crocker Range, 24.IV.2005, leg. S. Chew [Bosuang], 1 ex. (SMNS).

Distribution

Borneo (Masumoto 1993b).

Robustocamaria andoi (Masumoto, 1989)

Material

Sabah, Crocker Range, Gunung Alab, V.2005, leg. S. Chew [Bosuang], 2 ex. (CRG). – Sabah, vic. Ranau, 22.IV.2007, leg. S. Chew [Bosuang], 1 ex. (CRG). – Sabah, Crocker Range, Kimanis Road, 1100–1300 m, 2–4.IX.1998, leg. D. Bartsch & C. Häuser, 1 ex. (SMNS).

Distribution

Borneo (Masumoto 1993b).

Robustocamaria tibialis (Kulzer, 1954)

Material

Sabah, Mt. Trus Madi, 14.V.2007, leg. S. Chew [Bosuang], 2 ex. (CRG). – Sabah, SW Sandakan, Kuamat, 700 m, 5°13′N/117°30′E, 10.IV.2014, leg. S. Chew [Bosuang], 2 ex. (CRG).

Distribution

Borneo (Masumoto 1993b).

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