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On some Staphylinidae from Natmataung National Park, Chin State, Myanmar (Coleoptera: Staphylinidae: Paederinae, Staphylininae)

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Abstract

A selection of Staphylinidae from Natmataung National Park (Chin State, Myanmar) is treated. Two new species are described and illustrated: *Gabrius victoriae* sp.n. and *Anchocerus apterus* sp.n. The male characters of two species, *Paederus natmataungensis* WILLERS & SCHILLHAMMER, 2015 and *Algon angelikae* SCHILLHAMMER, 2011, are described and illustrated for the first time. The description and genital illustration of *Algon semiaeneus* CAMERON, 1932 are improved and *Gabrius sagittifer* SCHILLHAMMER, 1997 is recorded from Myanmar for the first time.

Key words: Coleoptera, Staphylinidae, Paederinae, Staphylininae, *Paederus*, *Gabrius*, *Anchocerus*, *Algon*, new data, new species, taxonomy, Myanmar.

Introduction

Natmataung National Park is situated in southern Chin State and comprises an area of ca. 723 km² (ISTITUTO OIKOS & BANCA 2011). It is an endemism hotspot, particularly around its highest peak, Mt. Victoria (Natmataung, 3200 m), notable for the occurrence of two out of ten of Myanmar's endemic bird species. Ongoing research has mostly been focusing on plants, avifauna and mammals, but very little has been done in the field of entomology, particularly in beetles.

An expedition of the NMW in 2010 has already shown that the majority of Coleoptera species, especially those with little dispersal ability, belong to undescribed taxa. In 2018, a follow-up expedition was carried out in the same area and the neighboring mountain range, with the goal of complementing the inventory and to collect additional specimens of species which have been represented only by females during the former survey.

This paper serves to describe the male characters of two species which have been available only by females so far, and to describe two further species new to science. In addition, new records and descriptive data for two additional species are provided.

Acknowledgements, abbreviations and methods

CNC	Canadian National Collection, Ottawa, Canada (A.J. Brunke)
cRS	Rudolf Schuh, private collection, Wiener Neustadt, Austria
NMW	Naturhistorisches Museum Wien, Austria

I am grateful to Rudolf Schuh and U Soe Min Aye for their substantial contribution in making the 2018 trip a success. Adam Brunke carefully proof-read the manuscript.

For imaging and drawing techniques, see SCHILLHAMMER (2017).

Subfamily Paederinae

Paederus natmataungensis WILLERS & SCHILLHAMMER, 2015

Material studied: 12 ♂♂, 3 ♀♀: "MYANMAR: Chin State, Natmataung NP, WNW Kanpetlet Township, 21°12'44.4"N 94°00'14.9"E, 2390 m, 26.5.2018, leg. Schuh (219)" (13 NMW, 1 CNC, 1 cRS).

The species was described from four females collected during the 2010 expedition to Natmataung National Park. Males were collected in a series for the first time in 2018, and their sexual characters are described below.

Male: Sternites IV–VII (Fig. 3) with a median depression, which is inconspicuous on sternite IV, becoming increasingly larger on subsequent sternites, occupying posterior half of sternites V and VI, and almost entire length of sternite VII; depression with dense punctation and pubescence; sternite VIII with shallow, impunctate depression at base, with very deep medioapical emargination, occupying half of sternite length, margin sharply bordered in proximal half of emargination, spoon-like flattened in distal half; sternite IX slightly asymmetrical, with longitudinal depression; aedeagus (Figs. 4–6) broadly ovoid, dorsal lobe broad, with sharply pointed apex; parameres fused with median lobe as in the other species described from that locality (WILLERS & SCHILLHAMMER 2015), apical lobes broad, extended into acute pincer-like apices.

NOTE: The other species described from females only, *P. goellnerae* WILLERS, 2015, was also collected during the 2018 expedition in numerous specimens, but no males were found.

Subfamily Staphylininae

Subtribe Philonthina

Gabrius victoriae sp.n.

Holotype ♂: "MYANMAR: Chin State, WNW Kanpetlet, Natmataung Nat. P. \ 21°13'16"N 93°58'00"E, 2500 m, 26.-30.5.2018, leg. Schillhammer & Soe Min Aye (218B)" (NMW).

DESCRIPTION: 4.9 mm long (2.6 mm, abdomen excluded). Black, mandibles dark reddish, palpi pale brownish, antennae black with basal three segments brownish and bases of these segments narrowly reddish, last segment dark reddish brown, legs reddish yellow, medial faces of hind tibiae infuscate.

Head subovoid, about 1.1 times as long as wide, tempora subparallel, 1.8 times as long as eyes, antennae rather short, segments 4–7 about as long as wide, 8–10 slightly transverse, surface of head with dense but fine microsculpture of transverse waves; pronotum slightly oblong (ratio 1.12), widest in posterior half, narrowed anteriad in almost straight line, posterior half of lateral margin and posterior margin forming continuous arc, dorsal rows with six almost equidistant punctures, surface with microsculpture as on head; elytra along sides markedly longer than pronotum along midline (ratio ca. 1.3), punctation moderately dense, punctures separated by 1.0–1.5 puncture diameters in transverse direction; scutellum finely and sparsely punctate; abdominal tergites very finely and loosely punctate, punctures in places forming irregular transverse rows.

Male: Aedeagus (Fig. 7a–c) similar to that of *G. xanthipes* SCHILLHAMMER, 1997 (see SCHILLHAMMER 1997), but median lobe with distinctly rounded apex (Fig. 7a), and paramere (Fig. 7c) only slightly notched medioapically.

Female unknown.

DIAGNOSIS: As with most members of the *G. imitator* group, the species can be reliably recognized only by the shape of the aedeagus.

BIONOMICS: The species was sifted from wet leaf litter in an almost undisturbed part of the mountain forest.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The species is named after the highest peak of the National Park, Mt. Victoria (Natmataung).

Gabrius sagittifer SCHILLHAMMER 1997

Material studied: 1 ♂: "MYANMAR: Chin State, Natmataung NP, W Mindat \ km 16 on road to Matupi, 21°23'20"N 93°52'24.1"E, 1950 m, 8.6.2018, leg. Schuh (234)" (NMW).

New record for Myanmar! The species was described from NW-India and Nepal. This new find extends the distribution range substantially and it might thus be expected also from the areas in between: NE-India (Arunachal Pradesh) and the southward extending mountain range of the Naga Hills in India and Myanmar.

Subtribe Acylophorina

Anchocerus apterus sp.n.

Holotype ♂: "MYANMAR: Chin State, WNW Kanpetlet, Natmataung Nat. P. \ 21°13'24.7"N 93°58'49.8"E, 2470 m, 31.5.2010, sifting of leaf litter, leg. Schillhammer (174)" (NMW). – **Paratypes** (9 exs.): 1 ♂, 1 ♀: same data as holotype (NMW); 1 ♂, 1 ♀: "MYANMAR: Chin State, WNW Kanpetlet, Natmataung Nat. P. \ 21°13'21.2"N 93°58'09.6"E, 2470 m, 1.6.2010, sifting of leaf litter, leg. Aung Zaw Lin (176)" (NMW); 3 ♂♂, 2 ♀♀: "MYANMAR: Chin State, WNW Kanpetlet, Natmataung Nat. P. \ 21°13'05.2"N 93°59'00"E, 2460 m, 28.-30.5.2018, sifting of leaf litter, leg. Schillhammer (221A)" (3 NMW, 2 CNC).

DESCRIPTION (Habitus: Fig. 1): 6.4–7.8 mm long (2.8–3.2 mm, abdomen excluded). Black, shining, mandibles reddish testaceous, palpi pale reddish yellow, antennae pale reddish with segments 3–7(8) often somewhat darkened, posterior margins of abdominal segments IV–VII narrowly and posterior third of VIII obscurely reddish, legs reddish, hind legs often somewhat darker than front and middle legs.

Head large, rounded quadrangular, 1.2–1.3 times as wide as long, tempora behind eyes subparallel to slightly convex, narrowed toward broad neck in almost regular arc or forming an inconspicuous angle, 2.1–2.5 times as long as very small eyes, surface with double punctation characteristic for the genus, with a pair of interocular punctures at about level of hind margin of eye, distance between puncture and eye about 1.5 times the distance between each puncture; antennae with segment 1 about as long as 2–4 combined, 3 distinctly and 4–5 slightly oblong, segments 9–10 slightly transverse; pronotum 1.12–1.23 times as wide as long, sides more or less regularly convex, dorsal surface with double punctation as on head, in addition, with two pairs of macropunctures forming a dorsal row, posterior pair at about midlength, anterior pair slightly in front of it; scutellum densely and coarsely punctate; elytra very short, along sides shorter than pronotum along midline (ratio ca. 1.15), posterior margin bisinuate, at shoulders with a small acute angle bearing a few stout and short bristles, punctation coarse and dense, punctures separated by a puncture diameter or less, hind wings reduced to non-functional stumps; abdominal tergites coarsely and densely punctate, with longitudinal punctural grooves, shorter on anterior tergites, becoming increasingly longer and narrower on posterior tergites, between punctures with very fine transverse microsculpture, almost imperceptible on tergites III and IV, becoming more distinct on tergites VII and VIII.

Male: Styli of tergite IX extremely broad, slightly concave ventrally, recalling the shape of oars: Aedeagus (Fig. 8a–b) with huge basal portion, occupying about half of aedeagal length, apical

portion of median lobe very slender, paramere deeply bilobed, without any peg setae or normal setae.

Female: Styli of tergite IX not modified, slender.

DIAGNOSIS: This is currently the only known wingless species in the genus; it is easily recognized by the short elytra.

BIONOMICS: The specimens were sifted from very wet leaf litter in an almost undisturbed portion of mountain forest at an elevation of slightly below 2500 m.

DISTRIBUTION: The species is at present known only from the type locality.

ETYMOLOGY: The specific epithet is the latinized Greek adjective *apterus* (= wingless) and refers to the fact that this species is not capable of flight.

Subtribe Algonina

Algon semiaeneus CAMERON, 1932

Material studied: 1 ♂, 2 ♀♀: "MYANMAR: Chin State, Kanpetlet, Oasis Mt. Resort \ 21°11'52.4"N 94°02'27.8"E, 1700 m, 25.-31.5.2018, leg. Schuh (217)" (NMW); 1 ♂: "MYANMAR: Chin State, Mindat town, Mindat Hotel, 21°22'35.2"N 93°59'10.7"E, 1400 m, 1.-8.6.2018, leg. local collector (225)" (NMW).

Habitus as in Fig. 2

The species was described from a single male from Hakha (Chin State). The additional specimens match the description of the holotype (see SCHILLHAMMER 2006: 155) to a large extent, but they allow an assessment of the variability, particularly the proportions of the head structures. Body length 16.3–18.7 mm (8.0–9.0, abdomen excluded); head 1.29–1.32 times as wide as long, eyes 1.66 times as long as tempora in males, 1.8 times in females. More material would be necessary to confirm that the difference in eye size represents a sexual dimorphism.

Fig. 9a–c shows a better illustration of the aedeagus since the drawing in SCHILLHAMMER (2006) was done from a genital that was treated with lactic acid and might have been artificially swollen.

The new specimens extend the distribution southward. The species obviously has a wide distribution range in the Chin Hills.

NOTE: The single female from Mt. Victoria collected by G. Heinrich at a (seemingly estimated) elevation of 1000 m (SCHILLHAMMER 2006: 185) has to be re-studied. Although I compared it to another species, *A. viridis* BOHAČ, 1992, it might turn out that it also belongs to *A. semiaeneus*.

Algon angelikae SCHILLHAMMER, 2011

Material studied: 1 ♀: "MYANMAR: Chin State, WNW Kanpetlet, Natmataung Nat. P. \ 21°13'16"N 93°58'00"E, 2500 m, 26.-30.5.2018, sifting of leaf litter, leg. Schuh (218B)" (NMW); 1 ♂: "MYANMAR: Chin State, Natmataung Nat. P., W Mindat \ km 27.5 on road to Matupi, 21°24'19.5"N 93°48'30.6"E, 2500 m, 2.-6.6.2018, leg. Schillhammer (226)" (NMW).

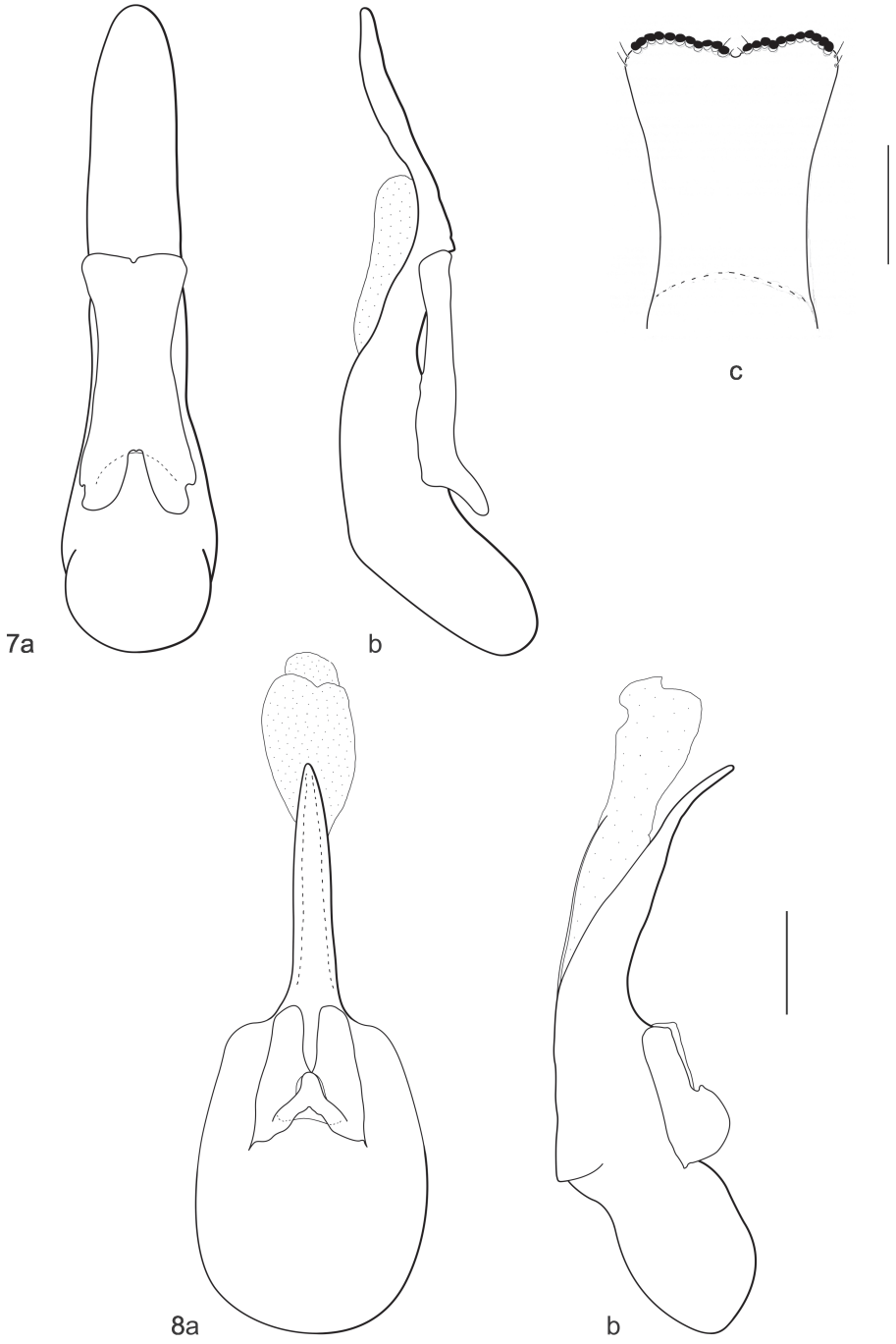
The species was described from two females. The 2018 expedition yielded two more specimens, another female from the type locality and a male from the next mountain range further north. I have no doubt that this male is conspecific with the specimens from the type locality.

Aedeagus (Fig. 10a–c) slender, median lobe rod-like with rather acute tip, slightly bent ventrad in lateral view; paramere (Fig. 10c) very slender, slightly shorter than median lobe, laterally depressed, side facing median lobe sharp as a blade, carrying a few weakly pigmented peg setae, mostly located on the lateral face of the paramere.

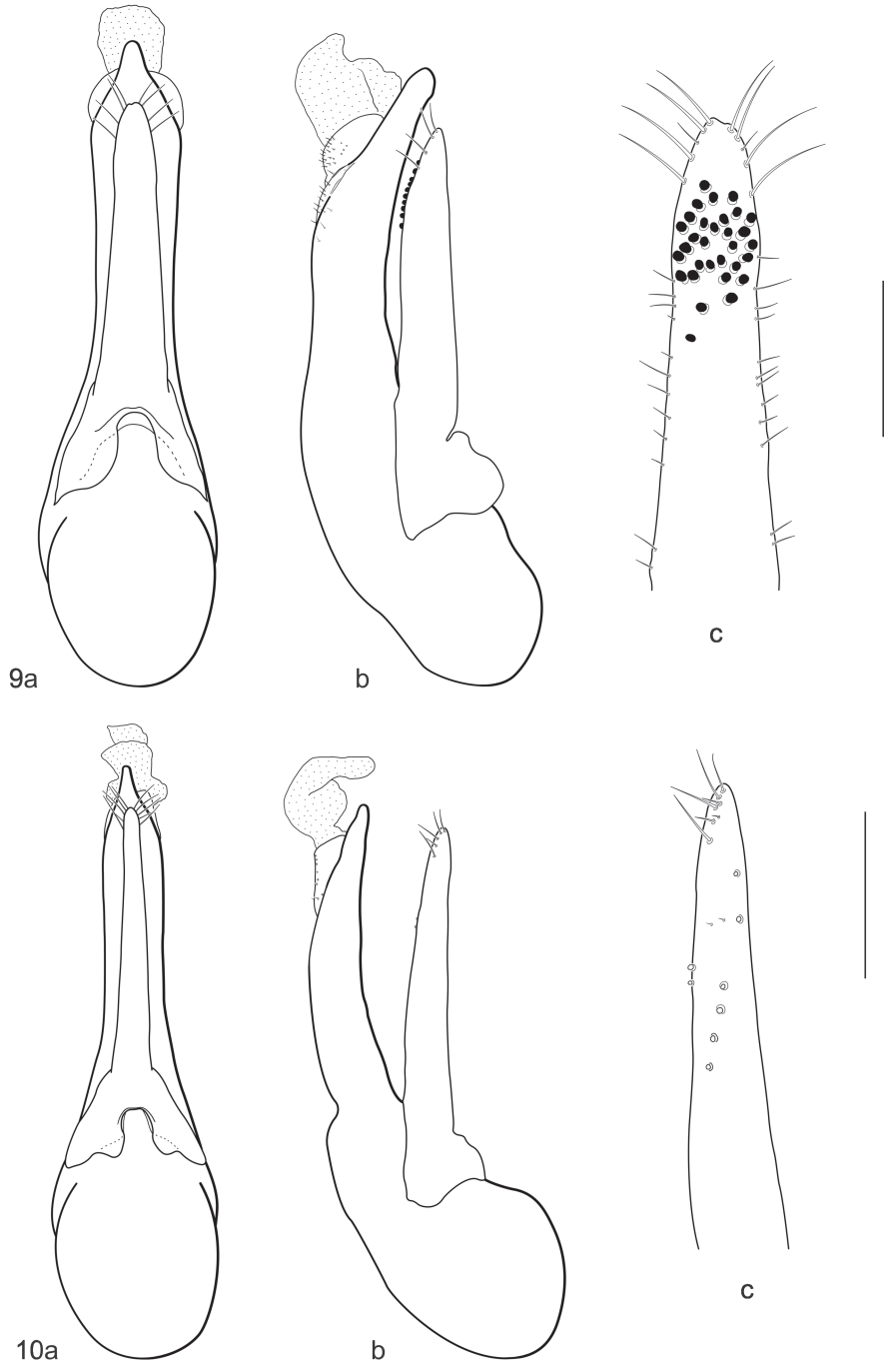
Fig. 1: Habitus of *Anchocerus apterus*, paratype.

Fig. 2: Habitus of *Algon semiaeneus.*

Figs. 3–6: *Paederus natmataungensis*; 3) abdomen, ventral view; 4-6) aedeagus in dorsal (4), ventral (5) and lateral (6) view.



Figs. 7–8: Aedeagus of 7) *Gabrius victoriae*; 8) *Anchocerus apterus*; a) ventral view, b) lateral view, c) paramere. – Scale bar: 0.2 mm (a, b), 0.1 mm (c).



Figs. 9–10: Aedeagus of 9) *Algon semiaeneus*; 10) *A. angelikae*; a) ventral view, b) lateral view, c) paramere (10c, lateral view of paramere). – Scale bar: 0.5 mm (a, b), 0.25 mm (c).

In the original description, the species was compared to *A. rugulipennis* SCHILLHAMMER, 2006, the latter being originally listed under "species incertae sedis". Usually, the shape of the aedeagus in combination with external morphology provides enough evidence as to which species group a species might belong. However, in this case the aedeagus, differing substantially from that of *A. rugulipennis*, did not provide any further lead. For the time being it is best to list *A. angelikae* as species incertae sedis as well.

Zusammenfassung

Eine Auswahl an Staphyliniden vom Natmataung Nationalpark wird behandelt. Zwei neue Arten werden beschrieben: *Gabrius victoriae* sp.n. and *Anchocerus apterus* sp.n. Die männlichen Merkmale von zwei Arten, *Paederus natmataungensis* WILLERS & SCHILLHAMMER, 2015 und *Algon angelikae* SCHILLHAMMER, 2011, werden zum ersten Mal beschrieben und abgebildet. Die Beschreibung und Genitalabbildung von *Algon semiaeneus* CAMERON, 1932 werden überarbeitet, und *Gabrius sagittifer* SCHILLHAMMER, 1997 wird zum ersten Mal für Myanmar gemeldet.

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