

Two new *Yamatosa* R. T. Bell & J. R. Bell, 1979 species (Coleoptera: Carabidae: Rhysodini) from the Oriental Region

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Abstract. The new species *Yamatosa viktorai* sp. nov. from Laos, and *Yamatosa tanahrataensis* sp. nov. from the Malaysian state Pahang are described, illustrated and compared with congeners.

INTRODUCTION

The genus *Yamatosa* R. T. Bell & J. R. Bell, 1979 is a genus of Rhysodini known from South Eastern Asia and comprises eighteen known species; eight species occur in eastern and south-eastern part of the Palaearctic Region (from Japan to western China, northern India and Pakistan, Taiwan), ten species are known from the Oriental Region (Laos, Thailand, Vietnam, Malay Peninsula, Greater Sunda Islands) (Bell & Bell 1978, 1979, 1985, 1987, 1989, 2002, 2009; Hovorka 2010, 2015 and 2018). The purpose of this work is to describe two new species from Laos and Malaysia belonging to this genus.

MATERIAL AND METHODS

This paper is based on the study of type material of the new species described below and of representatives of related species from the authors collection. The specimens included in this study are deposited in the following institutional and private collections:

NMPC National Museum, Praha, Czech Republic (Jiří Hájek);

OHPC Oldřich Hovorka private collection, Praha, Czech Republic.

Measurements were made with a SZP 1102-T ZOOM stereoscopic microscope. Measurements of body parts and corresponding abbreviations used in the text are as follows: EL = elytral length - length of left elytron measured along the suture from basal border to apex;

EW = elytral width - maximal width of both elytra combined;

HL = length of head - measured from apex of clypeus to posterior margin of temporal lobe;

HW = width of head - maximal width of head (including eyes);

PL = pronotal length - length of pronotum measured along mid-line;

PW = pronotal width - maximal width of pronotum;

TL = total length - length measured from the apex of left mandible (mandibles closed) to the apex of left elytron.

The morphological terms used in this study are adopted from Bell & Bell (1978, 1979).

The colour photographs of the habitus and diagnostic characters were taken by the author with a Canon EOS 5D Mark IV digital camera with an attached Canon MP-E65mm f/2.8 1–5× macro lens as numerous separate images at different focal planes and afterwards combined using Helicon Focus 8.2.0 software.

Exact label data are cited for the type material and given in quotation marks. Authors' additional remarks are provided in square brackets; [p]- preceding data are printed. Separate label lines are indicated by a slash (/), separate labels by a double slash (/).

DESCRIPTION

Yamatosia viktorai sp. nov.

(Figs. 1-6)

Type locality. Laos, Xianghouang (alternatively Xieng Khouang, Siang Khuang) Province, Mt. Phou Samsoum, 2291 m a.s.l., 19°08'28"N, 103°48'12"E (Fig. 6).

Type material. Holotype (♂) labelled: "Laos, Xiangkhouang prov. / Mt. Samsoum, 2291 m / 19°08'28"N, 103°48'12"E / 23.v.2024, P. Viktora lgt. [p] // *Yamatosia* / *viktorai* sp. nov. / det. O. Hovorka, 2026 / HOLOTYPE [p, red label]", (OHPC).

Description. Habitus (Fig. 1) - the new species is medium-sized, habitually very similar to its congeners. Body colour is dark (chestnut) brown, legs and antennae are reddish-brown, with femora darker than tibiae, and tarsi are brown-yellow. Palpomeres are yellow. Body elongate, narrow. TL 6.7 mm. Head only very slightly shorter than wide, HL:HW 0.98. Pronotum 1.15 times wider than head, distinctly longer than wide (PL : PW 1.48). Elytrae elongate, EL : EW 2.59, widest before the midlength.

Head (Fig. 2) relatively short, broad, with large eyes. Antennomeres I-X with ring of apical setae and few very small, hardly visible punctures on basal antennomeres, without pollinosity. Antennomeres V-X with narrow apical ring of minute setae. Antennomere XI longer than wide, with acute apex forming minute but distinct apical stylet. Anterior tentorial pits small, but distinct. Frontal, postclypeal and antennal grooves narrow and deep, distinct. Median lobe short, with narrowly rounded, blunt tip, and few very minute punctures on surface. Frontal space narrow, elongate, deep. Temporal lobe elongate with median margin slightly emarginate, medial angles only slightly separated; posterior medial margin slightly concave, so that medial angles relatively sharp, occipital angle blunt but distinct; surface with several dozen of microscopic, very fine punctures, almost regularly distributed on entire surface; temporal setae absent. Mentum and submentum without pollinosity (Fig. 3); mentum punctured, seta-bearing punctures arranged in several irregular transverse rows. One pair of postlabial setae, numerous prelabial setae and „beard“ present.

Pronotum (Fig. 2) elongate, its sides slightly convex, widest point well beyond the middle, slightly narrowed at the base, more strongly at apex. Lateral pronotal margin strongly sinuate anterior to hind angle, both lateral setae and angular seta absent. Marginal grooves complete. Median groove with both anterior and posterior median pit only slightly developed. Basal



Figs. 1-5. *Yamatosa viktorai* sp. nov. (1-5), 1- habitus, dorsal view; 2- head and pronotum, dorsal view; 3- head and pronotum, ventral view; 4- median lobe of aedeagus and left paramere, lateral view; 5- left posterior tibia of male.

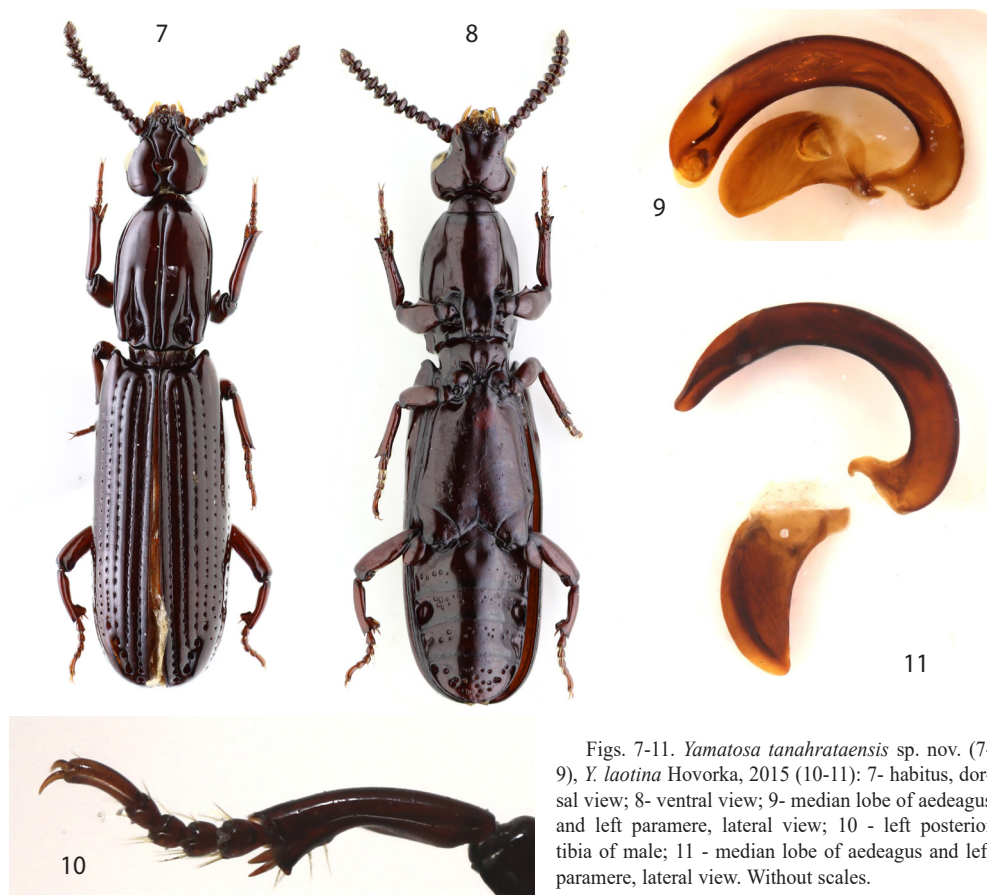


Fig. 6. Type locality of *Y. viktorai* sp. nov. (photo by P. Viktora)

impression elongate, discal striole reaching anterior 0.61 of pronotal length. Epipleuron of pronotum, prosternite and proepisternite without punctures and pollinosity. Precoxal carina absent. Prosternal process with longitudinal median impression and terminally with deep, transverse fovea.

Punctures of elytral striae fine, distinctly elongated in inner striae; stria I very deep, much deeper than other striae; striae II, III, V and VI abbreviated at base; stria VII more reduced, starting near the 0.25 of elytral length. Inner elytral intervals slightly convex. Humeral tubercle rounded, prominent. Elytral setae absent, only apical portion of elytral stria VII with row of 4 setae. Metasternum has a distinct longitudinal groove along its lateral margin, containing almost regular row of punctures. Two larger punctures are located on the posterior part of the metasternum, near the median longitudinal groove, situated within a shallow, longitudinal depression that widens toward the rear. Abdominal sternites (Fig. 3) punctured, towards the middle punctures smaller and sparser. Abdominal sternite III with deep elongate central pit (groove), abdominal sternite IV with deep lateral pits. Last visible sternite almost entirely punctured, laterally with large, pollinose punctures. Anterior femur with long, acute ventral tooth, male without modifications of anterior tibia. Hind calcar of male (Fig. 5) relatively large, its tip $\pm$ sharp. Hind tibia is nearly straight, with only a slight curvature toward the distal end. Median lobe of aedeagus as in Fig. 4.

Differential diagnosis. *Yamatosa viktorai* sp. nov. differs from all congeners by following combination of characters: pronotal marginal groove complete; prothoracic pleuron impunctate; discal striole of pronotum extends anteriorly ca 0.60 length of pronotum;



Figs. 7-11. *Yamatosa tanahrataensis* sp. nov. (7-9), *Y. laotina* Hovorka, 2015 (10-11): 7- habitus, dorsal view; 8- ventral view; 9- median lobe of aedeagus and left paramere, lateral view; 10 - left posterior tibia of male; 11 - median lobe of aedeagus and left paramere, lateral view. Without scales.

prosternum without distinct precoxal carina; antennal segment XI with short, punctiform stylet; punctures of elytral striae I-IV elongate; metatibia straight, with only a slight distal curvature, hind calcar of ♂ pointed (Fig. 5); pronotum strongly elongate (nearly 1.5 times longer than wide); left paramere slightly striate.

Most of the characters are shared with *Yamatosa kabakovi* R. T. Bell & J. R. Bell, 1985, *Y. niponensis* (Lewis, 1888), *Y. phuka* R. T. Bell & J. R. Bell, 2009 and *Y. laotina* Hovorka, 2015. *Y. kabakovi* differs from the new species by the obtuse hind calcar of male and by wider and shorter frontal space, *Y. niponensis* and *Y. phuka* by rounded, not elongated elytral punctures and small hind calcar. The nearest species is evidently *Y. laotina*, which differs mainly in the shape of its metatibia (which are strongly curved along their entire length), its larger metatibial calcar and shape of median lobus of aedeagus (see Figs. 10-11). The structure of male genitalia (Fig. 4) is unique in *Y. viktorai* sp. nov.

Name derivation. The specific epithet is patronymic, dedicated to Petr Viktora (Kutná Hora, Czech Republic), specialist in Oriental Cerambycidae and collector of the type specimen.

***Yamatosa tanahrataensis* sp. nov.**

(Figs. 7-9)

Type locality. Malaysia, Pahang, Cameron Highlands, Tanah Rata.

Type material. Holotype (♂) labelled: "Malaysia-W, Pahang / 30 km E of Ipoh, 1500 m / Cameron Highlands / Tanah Rata, 22.-26.i. / 1999, P. Čechovský leg. // ex coll. V. Kabourek / National Museum / Prague, Czech Republic [p] // *Yamatosa / tanahrataensis* sp. nov. / det. O. Hovorka, 2025 / HOLOTYPE [p, red label]" (NMPC).

Description. Habitus (Fig. 7) - the new species is medium-sized, habitually similar to its congeners. Body colour (including antennae) is brown, legs are reddish-brown, with knees darker than femora, tibiae and tarsi. Palpomeres yellow-brown. Body elongate, narrow. TL 6.7 mm. Head slightly longer than wide, HL : HW 1.05. Pronotum 1.14 times wider than head, distinctly longer than wide (PL : PW 1.51). Elytra elongate, EL : EW 2.44, widest approximately in midlength.

Head (Fig. 7) very slightly elongate, with large, distinctly convex eyes; the eyes are large in male holotype and head is widest in the line across the eyes. Antennae - antennomere XI longer than wide, rounded on apex, without apical stylet. Anterior tentorial pits relatively small, but distinct. Frontal, clypeal and postclypeal grooves narrow, but deep and distinct, antennal grooves very narrow, shallow, less distinct than frontal one, orbital groove absent. Median lobe relatively long, its tip narrowly rounded, much narrower and sharper than in e.g. *Y. boysi* R. T. Bell & J. R. Bell, 1987. Temporal lobe deeply sinuate in front of obtuse-angled and rounded median angles, latter closely but distinctly separated; frontal space wide, about as wide as long, and deep; margin of temporal lobe posterior to median angle concave, occipital angle obtuse-angular but distinct. Mentum (Fig. 8) with curved row of setae along anterior margin and one pair of large postlabial setae, surface otherwise smooth and shining, without pollinosity and unpunctured. Both clypeus and labrum with one pair of large setae.

Pronotum (Fig. 7) elongate, its sides slightly convex, widest point approximately in the middle of its length, slightly narrowed at the base, more strongly at apex. Lateral pronotal margin very shortly but distinctly sinuate anterior to hind angle, without lateral setae. Marginal grooves complete. Discal striole extends anteriorly 0.43 of pronotal length. Precoxal carina absent. Both prosternum and propleuron are impunctate. Prosternal process with central elongated medial impression between coxal cavities and terminally with slightly deeper transverse fovea.

Elytral striae I-V and posterior half of stria VII more or less impressed so that intervals convex, with deep, slightly elongated punctures, striae VI and anterior half of VII not impressed, formed only by a row of punctures or missing. Elytral striae V, VI and VII are very distinctly shortened at the base; striae V and VI are slightly reduced, with their basal fifth missing; stria VII is present only on the posterior two-thirds of the elytra. Humeral tubercle moderately prominent. Elytral setae mostly absent, only in apical part of stria IV one seta present and apical part of elytral stria VII with row of 6 setae. Metasternum (Fig. 8) laterally with distinct deep elongate sulcus, impunctate on the disc, with few transverse very fine wrinkles in the middle posteriorly.

Abdominal sternites (Fig. 8) punctured, towards the middle punctures smaller and sparser, punctuation widely interrupted on sternite III, nearly or fully continuous on sternites

IV and V, respectively. Abdominal sternite III with shallow, irregular depression in the middle. Abdominal sternite IV with distinct, large and deep lateral pits, abdominal sternite V with distinct, deep but much smaller lateral pits. Anterior femur with ventral tooth, male without modifications of anterior tibia. Hind calcar of male (Fig. 7) large, as long as width of tibia, its tip blunt. Median lobe of aedeagus and left paramere as in Fig. 9.

Differential diagnosis. The newly described species is characterized by a unique set of characters and differs from all its congeners by the following combination of characters: pronotal marginal groove complete; prothoracic pleuron impunctate; discal striole of pronotum extends anteriorly 0.43 length of pronotum; prosternum without distinct precoxal carina; antennomere XI without stylet; mentum without punctures medially; profemoral tooth present in male; eyes not reduced, head widest across the eyes in male; elytral stria VI shortened, with its basal fifth missing, and stria VII is even more reduced, with its basal third missing; hind calcar of male large with blunt tip.

Species with absent or reduced pronotal marginal groove (*Y. haucki* Hovorka, 2015, *Y. reitteri* (R. T. Bell, 1977), *Y. schawalleri* R. T. Bell et J. R. Bell, 2002 and *Y. sinensis* R. T. Bell & J. R. Bell, 1987,) are easily recognizable from *Yamatosa tanahrataensis* sp. nov. (but the species *Y. schawalleri* shares with the new species some important characters, as reduction of the elytral chaetotaxy and of elytral striae VI and VII, presence of femoral tooth etc.).

Y. tanahrataensis sp. nov. differs from its congeners with complete pronotal marginal groove by the impunctate prothoracic pleuron (x *Y. kryzhanovskiy* R. T. Bell & J. R. Bell, 1985), by the relatively short discal pronotal striole (x *Y. arrowi* (Grouvelle, 1908)), by the absence of precoxal carina (x *Y. longior* (Grouvelle, 1903) and *Y. peninsularis* (Arrow, 1942)), by the absence of antennal stylet (x *Y. kabakovi* R. T. Bell & J. R. Bell, 1985, *Y. laotina* Hovorka, 2015, *Y. niponensis* (Lewis, 1888), *Y. phuka* R. T. Bell & J. R. Bell, 2009 and *Y. viktorai* sp. nov.), by the impunctate mentum (x *Y. boysi* (Arrow, 1901), *Y. draco* (R. T. Bell, 1977) and *Y. reuteri* Hovorka, 2019), by the presence of profemoral tooth (x *Y. bacca* R. T. Bell & J. R. Bell, 2011 and *Y. smetanorum* R. T. Bell & J. R. Bell, 1989), and by the presence of distinct lateral pit on sternite V, the apically rounded antennomere XI, less reduced elytral striae VI + VII and larger hind calcar of male (x *Y. jakli* Hovorka, 2010).

Yamatosa tanahrataensis sp. nov. shares most of diagnostic characters with species *Y. jakli*; however, this species does not appear to be closely related and true sister-species to *Y. tanahrataensis* sp. nov.

Name derivation. Toponymic, named after the type locality - Tanah Rata (Cameron Highlands, Pahang, Malaysia).

CORRECTION TO THE DESCRIPTION OF *YAMATOSA LAOTINA* HOVORKA, 2015

The original description erroneously states that the discal striole of the pronotum extends anteriorly 0.43 length of pronotum; in fact, discal striole extends anteriorly 0.57 length of pronotum. Furthermore, there is no mention of the fact that elytral stria I is the deepest elytral stria.

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REFERENCES

- BELL R. T. & BELL J. R. 1978: Rhysodini of the world. Part I. A new classification of the tribe, and a synopsis of *Omoglymmius* subgenus *Nitiglymmius*, new subgenus (Coleoptera: Carabidae or Rhysodidae). *Quaestiones Entomologicae* 14: 43-88.
- BELL R. T. & BELL J. R. 1979: Rhysodini of the world. Part II. Revisions of the smaller genera (Coleoptera: Carabidae or Rhysodidae). *Quaestiones Entomologicae* 15: 377-446.
- BELL R. T. & BELL J. R. 1985: Rhysodini of the world. Part IV. Revisions of *Rhyzodiastes* Fairmaire and *Clinidium* Kirby, with new species in other genera (Coleoptera: Carabidae or Rhysodidae). *Quaestiones Entomologicae* 21: 1-172.
- BELL R. T. & BELL J. R. 1987: Rhysodine beetles in the Geneva collection: a new species of *Yamatosa*, and a major range extension for *Omoglymmius sakuraii* Nakane (Coleoptera: Carabidae or Rhysodidae). *Revue Suisse de Zoologie* 94: 683-686.
- BELL R. T. & BELL J. R. 1989: Rhysodine beetles in the Geneva collection II: new species of *Yamatosa* and *Omoglymmius*, descriptions of undescribed sexes in other species, and some major range extensions (Coleoptera: Carabidae or Rhysodidae). *Revue Suisse de Zoologie* 96: 637-642.
- BELL R. T. & BELL J. R. 2002: Two new species of Rhysodini (Coleoptera: Carabidae) with revised keys to *Yamatosa* Bell & Bell and *Omoglymmius* (*Pyxiglymmius*) Bell & Bell. *Stuttgarter Beiträge zur Naturkunde, Serie A (Biologie)*, Nr. 636: 1-7.
- BELL R. T. & BELL J. R. 2009: Rhysodine beetles (Insecta: Coleoptera: Carabidae): new species, new data III. *Annals of Carnegie Museum* 78: 45-77.
- HOVORKA O. 2010: New *Yamatosa* species (Coleoptera: Carabidae: Rhysodini) from Borneo. *Studies and Reports, Taxonomical Series* 6: 91-94.
- HOVORKA O. 2015: Two new *Yamatosa* species (Coleoptera, Carabidae, Rhysodini) from Laos. *Folia Heyrovskyana, Series A* 23: 21-26.
- HOVORKA O. 2018: A new *Yamatosa* species from China (Coleoptera: Carabidae: Rhysodini) and new distributional records of *Omoglymmius sakuraii* (Nakane, 1973). *Studies and Reports, Taxonomical Series* 14: 269-273.

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