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Two new tiger beetle species (Coleoptera: Cicindelidae)
from Myanmar and notes on another species.
151. Contribution towards the knowledge of the Cicindelidae

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Two new tiger beetle species (Coleoptera: Cicindelidae) from Myanmar and notes on another species. 151. Contribution towards the knowledge of the Cicindelidae

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Abstract. *Cylindera (Ifasina) thitarooae* Wiesner and Hori, new species, *Jansenia phyuae* Wiesner and Hori, new species, and the previously unknown male of *Jansenia myanmarensis* Wiesner, 2004 (Coleoptera: Cicindelidae) are described. *Cylindera (I.) thitarooae* may be recognized by shape of labrum and aedeagus. *Jansenia phyuae* may be recognized by its elytral contour and shape of elytral maculation.

Key words. Cicindelini, *Cylindera (Ifasina) thitarooae* new species, *Jansenia phyuae* new species, *Jansenia myanmarensis* Wiesner, 2004, diagnosis.

Introduction

Wiesner (2004: 179) described *Jansenia myanmarensis* on the basis of three females. In 2018 the second author and Miss Thanda Moe from the Department of Agricultural Research, Yezin, Myanmar succeeded in collecting females and males of this species. Additionally, they collected another species of *Jansenia* Chaudoir, similar to *J. myanmarensis* and a new species of *Cylindera (Ifasina)* Jeannel. Adults of all these species are described and figured below.

Materials and Methods

All measurements were made using a stereomicroscope. Measurements of total body length were made from the front of the clypeus to apex of elytra. The label data of type specimens were collated using the following system: in order from pinhead to pin point the label data were copied with label lines. Printed white labels and rectangular shape, however, were not explicitly noted. All remaining pertinent data were recorded within brackets.

Specimens mentioned here are deposited in the following collections:

- DARM Department of Agricultural Research, Yezin, Myanmar.
- FSKU Laboratory of Animal Ecology, Kyoto University, Kyoto, Japan.
- JWGC Jürgen Wiesner Collection, Wolfsburg, Germany.
- MHWJ Michio Hori Collection, Wakayama, Japan.
- OMNS Osaka Museum of Natural History, Osaka, Japan.
- YAUM Yezin Agricultural University, Yezin, Myanmar.

Results

Jansenia phyuae Wiesner and Hori, new species

(Fig. 1)

Type depository. Holotype male in OMNS, one paratype male and female each in DARM, JWGC and YAUM, three paratype males and two paratype female in MHWJ.

Type status. Holotype male, *type labels*: “Pyingaing, Maharmyaine / Wildlife Sanctuary, Sagaing / Region, MYANMAR / May 29, 2018 / Michio HORI & Thanda Moe leg.”, “HOLOTYPE / *Jansenia phyuae* / Wiesner & Hori ded. 2019 [printed, red]”.

Paratypes: 1 male and 1 female with same label in JWGC, and “PARATYPE/ *Jansenia phyuae* / Wiesner & Hori ded. 2019 [printed, red]”. 1 male with same labels in YAUM. 1 male and 1 female in DARM: “Pyingaing, Maharmyaine / Wildlife Sanctuary / Sagaing / Region, MYANMAR / June 6, 2014 / Michio HORI & Thanda Moe leg.” and same type label. 1 male with same labels in MHWJ. 1 male, 1 female in MHWJ: “Pyingaing, Maharmyaine / Wildlife Sanctuary / Sagaing / Region, MYANMAR / June 5, 2015 / Michio HORI & Thanda Moe leg.” and same type label. 1 female with same labels in YAUM. 1 male in MHWJ: “Chatthin Wildlife Sanctuary, / Sagaing Region, / MYANMAR / June 4, 2014 / Michio HORI & Thanda Moe leg.” and same type label. 1 female in MHWJ: “Sanmyaung Camp, / Chatthin Wildlife Sanctuary, / Sagaing Region, / MYANMAR / May 30, 2016 / Michio HORI & Thanda Moe leg.” and same type label.

Distribution. Myanmar (Sagaing Region).

Etymology. This new species is cordially dedicated to Dr. Moe Hnin Phyu of Yezin Agricultural University, Myanmar.

Diagnosis. Distinguished from *J. myanmarensis* by the shape of the elytral apical spot, lacking any apical extension and by the even elytral contour, lacking any uneven areas or ridges on disc.

Description. *Size*: Total length (without labrum) 7.7–9.6mm (mean = 8.7 mm, $n = 12$). *Head*: Brown coppery above; greenish ventrally, surface glabrous, with each two setigerous punctures next to the eyes in front and at the centre; with strong transverse striae on frons and strong longitudinal striae on orbital plates, furrows on vertex wrinkled; genae fine transversally striated, brassy near the eyes, the remaining dark blue. Ratio of width of head to width of elytra = 0.9 in medium. Labrum (male Fig. 2, female Fig. 3) wider than long, ratio of length to width = 0.7 in medium; with a medial carina, a blunt short tooth in the middle of front edge in males, a longer pointed tooth in female, and with six marginal setae; color yellow, anterior margin and anterior part of carina black, setigerous punctures black; mandibles yellowish, with four black teeth. Labial and maxillary palpi testaceous, apical segment black, penultimate segment of labial palpi dilated, with long erected white setae. Antennae slender, long, reaching behind the basal third of the elytra in males, behind the shoulders in females; antennomeres one to four dark, with metallic luster; scape with one long apical seta, the other three antennomeres almost glabrous; antennomeres five to eleven dark blackish brown, dull, finely and evenly pubescent. *Thorax*: Pronotum as wide as long (ratio of length to width = 1.0 in medium), sides somewhat rounded between the transversal constrictions; glabrous, covered with white setae laterally; with shallow wrinkled furrows; color brownish coppery. Sternae and episternae dark blue; proepisternum with several white setae; mesepisternum glabrous, with a long distal furrow in the female; metepisternum setose. *Elytra*: (Fig. 4, 5) parallel-sided, evenly, slightly extended laterally, coppery brown with greenish and coppery reflections laterally, deeply punctuate with some metallic green foveae along suture and at inner humeral angle, punctures shallower towards apical suture; elytral apex rounded, microserrulate, with retracted sutural tiny tooth; elytral testaceous maculation consists of three roundish dots, a small marginal one, without or with a tiny central one and a larger apical one. Epipleurae brown. *Ventral aspect*: Venter setose, bluish black; coxae with white setae; trochanters testaceous; coxae and femora brown, with green reflections, knee brownish yellow; tibiae brownish yellow, darkened apically; tarsi brownish black; legs covered with some with setae, mesotibiae more densely setose. *Aedeagus*: (Fig. 6) moderately bulky and wide on middle third, gradually tapering towards apex, apex slender and evenly extracted, forming a hook (total length 2.5mm).

***Jansenia myanmarensis* Wiesner, 2004**

(Fig. 7)

Material examined. 2 males, 2 females, “Pyon Village, near Ainggyi, / 13 miles from Saw, / Magway Region, MYANMAR / June 8, 2015 / Michio HORI & Thanda Moe leg.”. 6 males, 1 female, “Pyon Village, near Ainggyi, / 13 miles from Saw, / Magway Region, MYANMAR / June 1, 2016 / Michio HORI & Thanda Moe leg.”. 4 males, 1 female, “Pyon Village, near Ainggyi, / 13 miles from Saw, / Magway Region, MYANMAR / June 10, 2017 / Michio HORI & Thanda Moe leg.”. 9 males, 4 females, “Pyon Village, 10 km W from / Ainggyi, Magway Region, / MYANMAR / May 30–31, 2018 / Michio HORI & Thanda Moe leg.”. 1 male, “5 km W from Ainggyi (teak / plantation), Magway Region, / MYANMAR / May 31, 2018 / Michio HORI & Thanda Moe leg.”. 19 males, 7 females in MHWJ, 3 males, 1 female in JWGC.

Redescription. *Size:* Total length (without labrum) 7.5–9.6mm (mean = 8.6mm, $n = 30$). *Head:* Black coppery above; greenish ventrally, surface glabrous, with each two setigerous punctures next to the eyes in front and at the centre; with very strong transverse striae on frons and very strong longitudinal striae on orbital plates, furrows on vertex wrinkled; genae finely striated transversally, brassy near the eyes, the remaining greenish. Ratio of width of head to width of elytra = 0.9 in medium. Labrum (male Fig. 8, female Fig. 9) wider than long, ratio of length to width = 0.7 in medium; with a medial carina, a blunt short tooth in the middle of front edge in males, a longer pointed tooth in female, and with six marginal setae; color yellow, anterior margin and anterior part of carina black, setigerous punctures black; mandibles yellowish, with four black teeth. Labial and maxillary palpi testaceous, apical segment black, penultimate segment of labial palpi dilated, with long erected white setae. Antennae slender, long, reaching behind the basal third of the elytra in males, behind the shoulders in females; antennomeres one to four dark, with metallic luster; scape with one long apical seta, the other three antennomeres almost glabrous; antennomeres five to eleven dark blackish brown, dull, finely and evenly pubescent. *Thorax:* Pronotum as wide as long (ratio of length to width = 1.0 in medium), sides somewhat rounded between the transversal constrictions; glabrous, covered with white setae laterally; with shallow wrinkled furrows; color blackish coppery. Sternae and episternae coppery; proepisternum with several white setae; mesepisternum glabrous, smooth, without distal furrow in the female; metepisternum setose. *Elytra:* (Fig. 10–12) parallel-sided, slightly extended laterally; blackish brown with greenish and coppery reflections laterally; deeply punctuate with some metallic coppery or green foveae along suture and at inner humeral angle, punctures shallower towards apical suture; surface slightly unevenly contoured on disc with longitudinal ridge on basal two thirds near the metallic foveae; elytral apex rounded, microserrulate, with retracted tiny sutural tooth; elytral testaceous maculation consists of three roundish dots, a variable (small to nearly extinct) marginal one, a tiny central one and a larger apical one, which shows an apical extension. Epipleurae dark brownish. *Ventral aspect:* Venter setose, coppery; coxae with white setae; trochanters testaceous; coxae and femora shiny green, knee brownish yellow; tibiae brownish yellow, darkened apically; tarsi brownish black; legs covered with some with setae, mesotibiae more densely setose. *Aedeagus:* (Fig. 13) moderately bulky and wide on middle third, gradually tapering towards apex, apex slender and evenly extracted, forming a fine hook (total length 2.6mm).

***Cylindera (Ifasina) thitarooae* Wiesner and Hori, new species**

(Fig. 14)

Type depository. Holotype male in OMNS, two paratype males and females in JWGC, one paratype male and female each in YAUM and DARM, five paratype males and nineteen paratype females in MHWJ.

Type status. Holotype male, *type labels:* “Sa Yoe, near Thet keg yin, / Maharmyaine Wildlife Sanctuary, / Sagaing Region, Myanmar / May 31, 2016 / Michio HORI & Thanda Moe leg.”, “HOLOTYPE / *Cylindera* (*Ifasina*) / *thitarooae* / Wiesner & Hori ded. 2019 [printed, red]”.

Paratypes: 2 males and 2 females with same label in JWGC, and “PARATYPE/ *Cylindera* (*Ifasina*) *thitarooae* / Wiesner & Hori ded. 2019 [printed, red]”. 1 male and 1 female with same labels in YAUM. 9 females with same labels in MHWJ. 1 male, 1 female in DARM: “Sa Yoe, near Thet keg yin, / Maharmyaine W. S., / Sagaing Region, MYANMAR / May 29, 2018 / Michio HORI & Thanda Moe leg.”, and same type label. 4 males and 5 females with same labels in MHWJ. 1 male, 1 female in MHWJ: “Sa Yoe, near Thet

keg yin, / Maharmyaine W. S., / Sagaing Region, MYANMAR / June 6 2014 / Michio HORI & Thanda Moe leg.”, and same type label. 4 females in MHWJ: “Pyon Village, near Aingyi, / 13 miles from Saw, / Magway Region, MYANMAR / June 8, 2015 / Michio HORI & Thanda Moe leg.” and same type label. 2 specimens in FSKU (for DNA-studies).

Distribution. Myanmar (Sagaing Region, Magway Region).

Etymology. This new species is cordially dedicated to Ms. Thi Tar Oo, Professor at Yezin Agricultural University, Myanmar.

Diagnosis. At first sight the new species resembles *C. (I.) juergenwiesneri* Naviaux, 1991 and *C. (I.) sikhimensis* (Mandl, 1982). From *C. (I.) juergenwiesneri* it differs by the shape of the labrum and the smaller number of submarginal setae (Fig. 17, 18) and the shape of the aedeagus (Fig. 22). From *C. (I.) sikhimensis* it differs by the larger body size, the presence of a humeral lunule and the shape of the aedeagus (Fig. 23).

Description. *Size:* Total length (without labrum) 6.5–8.3mm (mean = 7.4mm, $n = 33$). *Head:* Dull coppery greenish above; surface smooth, glabrous, with each two setigerous punctures next to the eyes in front and at the centre; shallow longitudinal striae on orbital plates, irregular, transversely waved between and behind on neck; genae greenish, setose and longitudinally striated. Ratio of width of head to width of elytra = 0.8 in medium. Labrum (male Fig. 15, female Fig. 16) short, distinctly wider than long, ratio of length to width = 0.4 in medium; with eight marginal setae, with three teeth, middle one acute, lateral ones obtuse; color yellow with narrow black border. Mandibles yellowish, with four black teeth. Labial and maxillary palpi testaceous, apical segment metallic dark greenish; basal segment of labial palpi with long erected white setae. Antennae slender, long, reaching half of the elytral length in the male, a little shorter in the female; antennomeres one to four dark, metallic greenish; scape with with one long apical seta, the other three antennomeres almost glabrous; antennomeres five to eleven dark blackish brown, dull, finely and evenly pubescent, antennomere eleven somewhat dilated. *Thorax:* Pronotum slightly shorter than wide (ratio of length to width = 0.9 in medium), sides somewhat rounded between the transversal constrictions; glabrous, lateral margins densely setose; disc with irregular wrinkles, transversely waved medial and before and behind the transversal constrictions; color dull coppery greenish. Proepisternum coppery and setose, mesepisternum black and glabrous, remaining sternae and episternae densely setose, black with coppery luster; mesepisternum of females with a short and shallow longitudinal furrow near the basal margin. *Elytra:* (Fig. 19–20) parallel-sided, somewhat widened in the middle of female; color dull greenish on the disc, lateral margins shiny black at the shoulders, shiny coppery between shoulder and apical lunule; elytral testaceous maculation consists of a slender humeral lunule, a triangular marginal dot, a small roundish central dot and a slender apical lunule. Surface with a fine microsculpture of blue, coppery bordered, and evenly spaced punctures; coppery area lighter at apical lunule and darker in a longitudinal area at central dot; apical microserration extremely fine; apical border distinctly rounded and restricted towards middle suture, with a tiny sutural spine. Epipleurae black. *Ventral aspect:* Venter densely setose, black, with greenish metallic luster; trochanters testaceous; coxae, femora, tibiae and tarsi dark, with blue green luster; legs covered with some setae, mesotibiae more densely setose. *Aedeagus:* (Fig. 21) on left lateral view slender, straight, slightly enlarged in the middle, with a steady extracted apex (total length 2.3mm).

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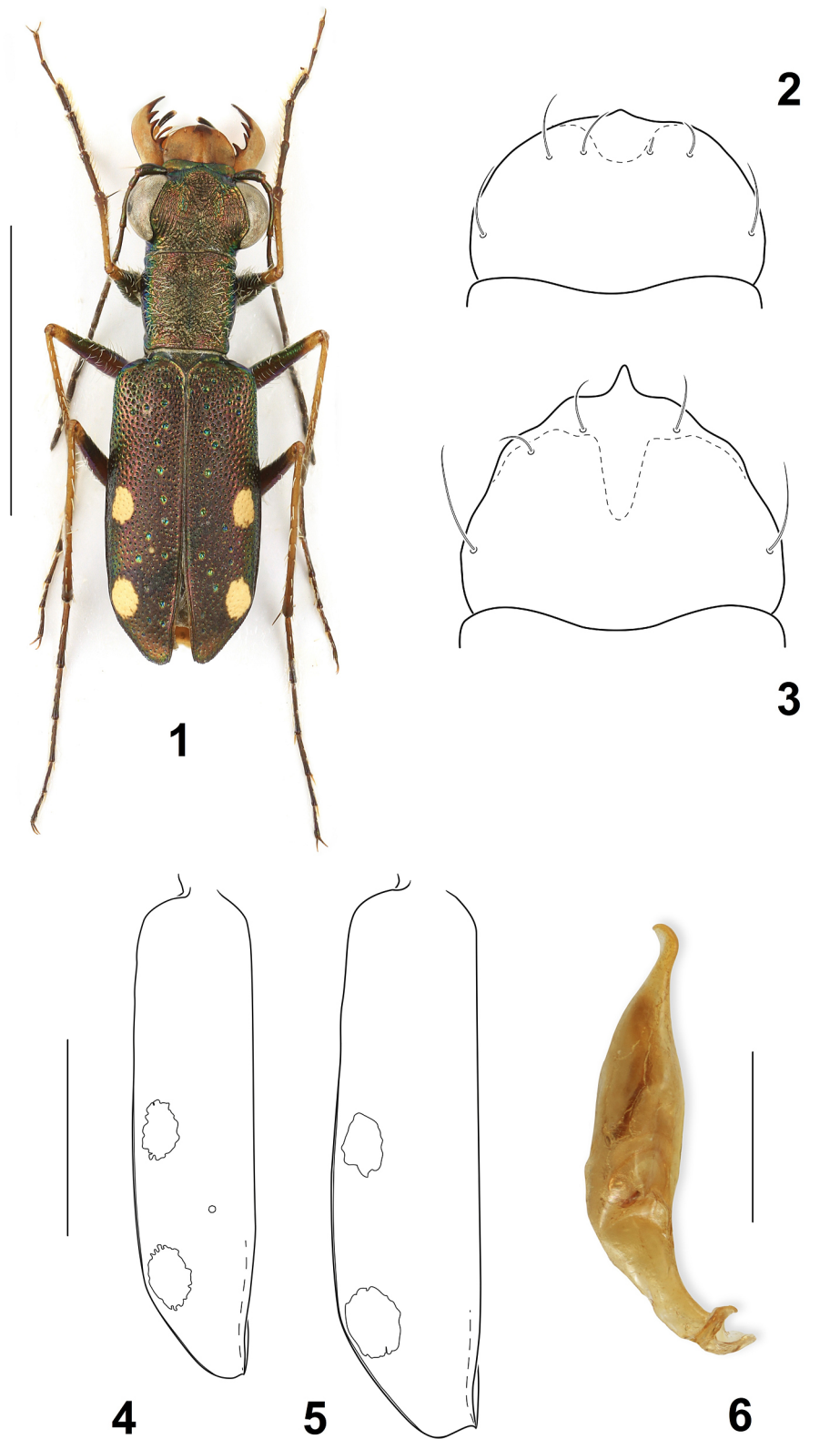
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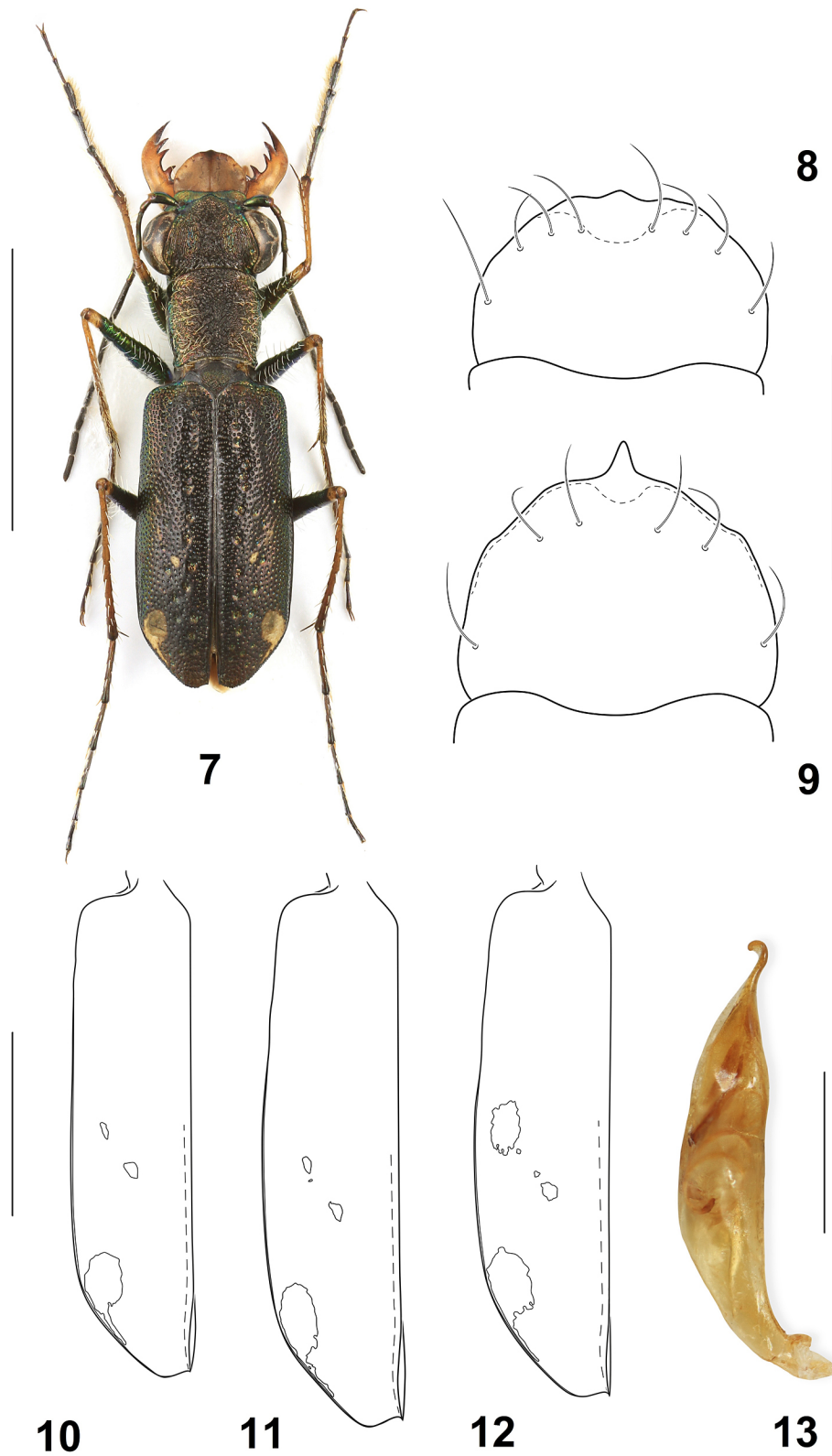
Wiesner, J. 2004. Three new tiger beetle species from Myanmar and notes on further species (Coleoptera: Cicindelidae). 86. contribution towards the knowledge of Cicindelidae. *Entomologische Zeitschrift* 114 (4): 175–181.

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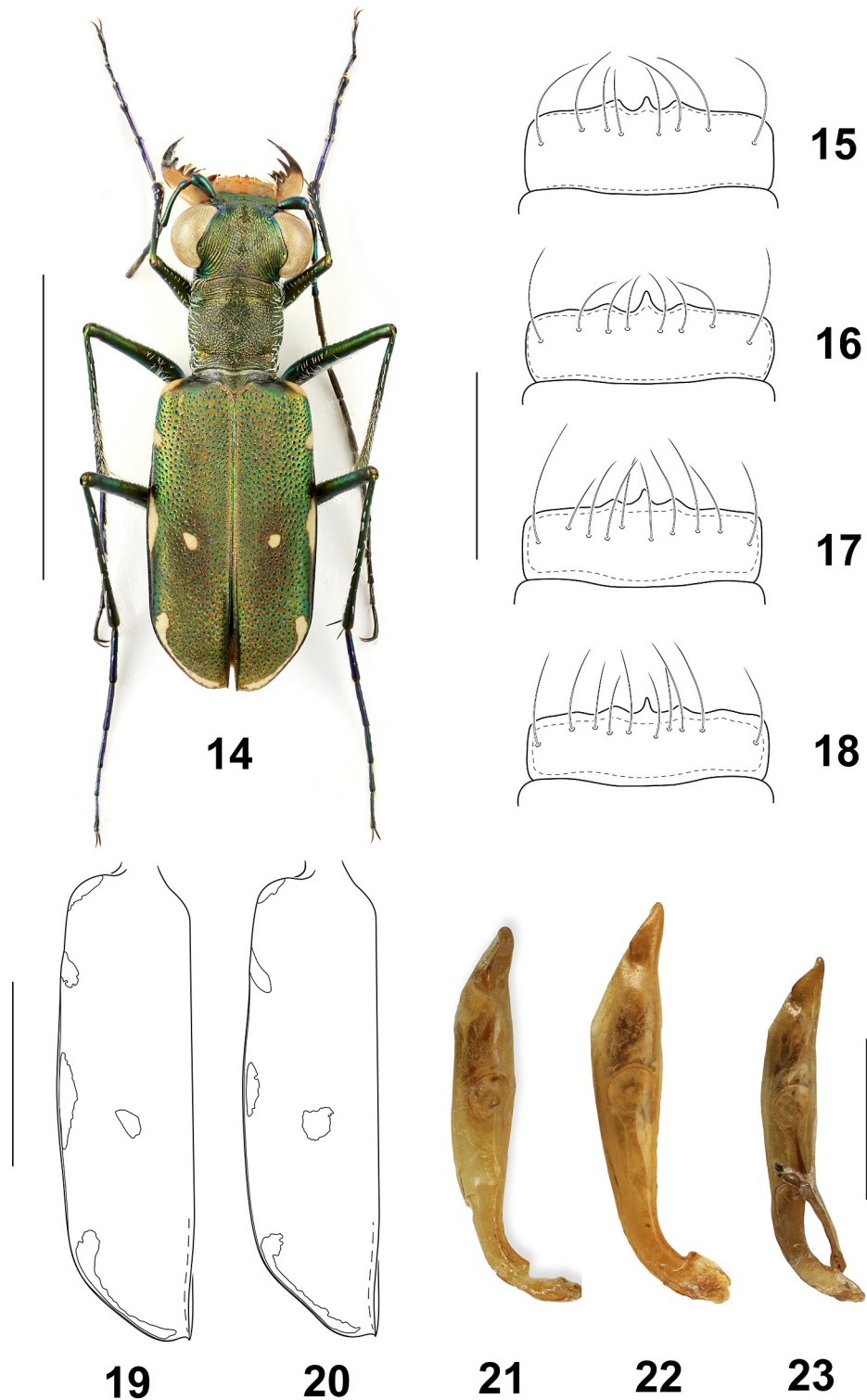
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Figures 1–6. *Jansenia phyuae*, new species. **1)** Habitus, holotype male, scale = 5 mm. **2–3.** Labrum, scale = 1 mm. **2)** Holotype male. **3)** Paratype female. **4–5.** Left elytron, scale = 2 mm. **4)** Holotype male. **5)** Paratype female. **6)** Left lateral view of aedeagus, holotype, scale = 1 mm.



Figures 7–13. *Jansenia myanmarensis* Wiesner, 2004. **7)** Habitus, male, scale = 5 mm. **8–9)** Labrum, scale = 1 mm. **8)** Male. **9)** Female. **10–12)** Left elytron, scale = 2 mm. **10)** Male. **11)** Female. **12)** Paratype female. **13)** Left lateral view of aedeagus, scale = 1 mm.



Figures 14–23. *Cylindera (Ifasina)* species. **14)** Habitus, *C. (I.) thitarooae* new species, holotype male, scale = 5 mm. **15–18.** Labrum, scale = 1 mm. **15)** *C. (I.) thitarooae* new species, holotype male. **16)** *C. (I.) thitarooae* new species, paratype female. **17)** *C. (I.) juergenwiesneri* Naviaux, 1991, male. **18)** *C. (I.) juergenwiesneri* Naviaux, 1991, female. **19–20.** Left elytron, *C. (I.) thitarooae* new species, scale = 2 mm. **19)** Holotype male. **20)** Paratype female. **21–23.** Left lateral view of aedeagus, scale = 1 mm. **21)** *C. (I.) thitarooae* new species, holotype. **22)** *C. (I.) juergenwiesneri* Naviaux, 1991. **23)** *C. (I.) sikhimensis* (Mandl, 1982).