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Journal of Threatened Taxa

Building evidence for conservation globally

www.threatenedtaxa.org

ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)

SHORT COMMUNICATION

NEW RECORD OF LOW'S FLATFACED LONGHORN BEETLE *SAROTHROCERA LOWII* WHITE, 1846 (COLEOPTERA: CERAMBYCIDAE: LAMIINAE: LAMIINI) IN NAGALAND, INDIA, ALONG WITH FIRST-TIME DESCRIPTIONS OF MALE AND FEMALE GENITALIA

Kolla Sreedevi, Manisha Sharma & Hemant Vasant Ghatge

26 February 2019 | Vol. 11 | No. 3 | Pages: 13390–13394

DOI: 10.11609/jott.4503.11.3.13390-13394



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ISSN 0974-7907 (Online)
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NEW RECORD OF LOW'S FLATFACED LONGHORN BEETLE *SARTHROCERA LOWII* WHITE, 1846 (COLEOPTERA: CERAMBYCIDAE: LAMIINAE: LAMIINI) IN NAGALAND, INDIA, ALONG WITH FIRST-TIME DESCRIPTIONS OF MALE AND FEMALE GENITALIA

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Abstract: *Sarthrocera lowii* White, 1846 is the only species belonging to the genus *Sarthrocera* (Coleoptera: Cerambycidae: Lamiinae). Both the sexes of *S. lowii* were collected from Medziphema, Nagaland, northeastern India, during surveys in 2016. Earlier, Ghatge et al. (2012) and Kumawat et al. (2015) reported this species from Manipur and Arunachal Pradesh, respectively, based on female specimens. This paper describes detailed characters of male *S. lowii* with comments on the female, along with the genitalia descriptions of both sexes for the first time. The species is a new report from Nagaland, India, adding to the known distribution.

Keywords: Additional characters, diagnostic characters, longhorn beetle, northeastern India.

Sarthrocera lowii White, 1846 (Coleoptera: Cerambycidae: Lamiinae) was named after Sir Hugh Low in honour of his great contribution to the natural history of the Malay Peninsula. This species was earlier reported from northeastern India in 2012 and 2015. Ghatge et al. (2012) reported a single female of *S. lowii*

from Manipur as the first record from India. Later, Kumawat et al. (2015) reported it from Arunachal Pradesh based on a single female. Ghatge et al. (2012) provided the distinguishing characters of the female and male based on the descriptions of *S. lowii* given by White (1846) and von Breuning (1943) and also adequately illustrated various characters of the female. Since the first author collected both male and female specimens from Medziphema, Nagaland, during surveys in 2016, the paper aims at describing additional characters of adult male along with comments on the female. As the genitalia form an important diagnostic feature in species delineation, the descriptions of both male and female genitalia are provided here for the first time. This report presents the first record of the species from Nagaland and a new distribution locality for the species.

DOI: <https://doi.org/10.11609/jott.4503.11.3.13390-13394> | **ZooBank:** urn:lsid:zoobank.org:pub:8A248C48-62C3-43B4-AD7C-6083709799B7

Editor: Eduard Vives, Museu de Ciències Naturals de Barcelona, Terrassa, Spain.

Date of publication: 26 February 2019 (online & print)

Manuscript details: #4503 | Received 23 August 2018 | Final received 16 February 2019 | Finally accepted 18 February 2019

Citation: Sreedevi, K., M. Sharma & H.V. Ghatge (2019). New record of Low's Flatfaced Longhorn Beetle *Sarthrocera lowii* White, 1846 (Coleoptera: Cerambycidae: Lamiinae: Lamiini) in Nagaland, India, along with first-time descriptions of male and female genitalia. *Journal of Threatened Taxa* 11(3): 13390–13394; <https://doi.org/10.11609/jott.4503.11.3.13390-13394>

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Funding: ICAR sponsored 'Consortium Research Platform on Borers' under grant number 12-128.

Competing interests: The authors declare no competing interests.

Acknowledgements: The authors are thankful to Dr. Pankaj Neog, Assistant Professor, SASRD, Nagaland University, Medziphema, Nagaland, India, for facilitating the surveys. This work was supported by the ICAR sponsored project 'CRP on Borers' under grant number 12-128, which is gratefully acknowledged. Thanks are also due to the Director, ICAR-IARI and Head in division of entomology, ICAR-IARI, New Delhi, and the authorities of Modern College, Shivajinagar, Pune, for facilitating the work. The authors thank the Director, ICAR-NBAIR, Bengaluru, for the specimens deposition in the museum.

MATERIALS AND METHODS

Specimens examined: NBAIR/COL-CER/1/2019, NBAIR/COL-CER/2/2019, 1 female, 1 male, 9.v.2016, Medziphema, Nagaland, India, 25°45'N & 93°53'E, 309m, coll. Kolla Sreedevi.

Specimens are deposited in ICAR-National Bureau of Agricultural Insect Resources, Bengaluru, India.

The adults of *S. lowii* were collected through light traps with mercury bulb as the light source in the second week of May 2016. The specimens were brought to the laboratory at the Division of Entomology, ICAR-Indian Agricultural Research Institute, New Delhi. The morphologic and genitalia character studies along with genitalia dissection of the specimens were done using Leica KL300 LED stereo zoom microscope. For the isolation of genitalia, the abdomen was taken out and kept in warm distilled water to soften; dissection was carried out using 70% ethyl alcohol. Genitalia were then removed from the abdomen using microscissors and was kept in 10% KOH solution for 4–6 hours to dissolve the muscles. After examination under the microscope, the genitalia were preserved in glycerol in genitalia vial and pinned along with the specimen. The abdomen was glued back to the specimen. Images were taken using Sony 8x digital camera. The genitalia images and morphometry were done using Leica M205FA with 1.0x lens, using LAS V3.8 software. The terminology for genitalia descriptions is adopted from Lin et al. (2009) and Yamasako & Ohbayashi (2011).

TAXONOMY

Sarothrocera lowii White, 1846

Sarothrocera lowii White, 1846 *Ann. Mag. Nat. Hist.* 18: 47.

Sarothrocera lowei Thomson, 1861 Paris: 361.

Sarothrocera lowi Aurivillius, 1922 *Coleopt. Cat.* 73: 78.

Sarothrocera lowii Ghate et al., 2012 *J. Threat. Taxa* 4(7): 2709.

Sarothrocera lowii Kumawat et al., 2015 *J. Threat. Taxa* 7(12): 7879–7901.

Adult descriptions:

Male (Images 1A,B)

Colour: Body dorsally brownish or tawny, velvety in appearance. Head, pronotum, and ventral surface, along with legs, lighter than elytra, with yellowish or golden pubescence, basal 1/4 portion of elytra darker than whole body; head with eyes black, clypeus shining brown, mandibles black, palpi dark brown, first five antennomeres brownish and rest dark brown to black;

scutellum covered with pale yellow setae. Female, in general, is slightly lighter than male.

Structure

Head: Vertical, antennal tubercles close, elevated forming a V-shaped structure, eyes black with elongated inferior lobes, median sulcus on head between eyes; antenna 11-segmented, 1.5 times longer than body length, antennomeres progressively decreasing in length and becoming thinner gradually, tapering apically, tufts of black setae are present on inner side up to III antennomere or little beyond that to base of IV antennomere, which is the characteristic feature of male, as described by White (1846). First antennal segment thickened at apex, II antennomere very small. Mouth hypognathus, clypeus short, front trapezoidal, mandibles short, apically pointed maxillary, and labial palpi moderately long and fusiform.

Thorax: Pronotum transverse, bearing a pair of lateral spines; few long setae are present on lateral margin beneath spines and sparse on disc. All legs short, moderately robust and laterally compressed, tibia relatively slender but dilated apically, tibial spur short, claws divaricate. Acetabula of front and middle coxae rounded on the outer side. Prosternal process narrow between coxae and dilated distally. Scutellum longer than broad, more or less tongue-shaped. Elytra parallel sided, apex rounded, pubescent, elongate with prominent shoulder, moderately convex.

Abdomen: Abdomen gradually narrowed from base to apex, first sternite longer, rest almost of equal length (see ventral views in Images 1 & 2).

Description of male genitalia (Images 3–6)

Male terminalia 6.1mm long and 1.5mm wide, sclerotized, brown-coloured, slightly curved or convex. Tegmen (Images 4A,B) 5.2mm long and 1.27mm wide (at the middle) with two long, apically feebly pointed parameres, dorsally possessing brown long and thick setae on each lobe, near apex (Image 5A), ventrally entire sclerotized portion of parameres covered with setae, which gradually increase in length towards tip (Image 5B). Rings or lower lobes nearly parallel, widest at middle, forming a slight notch near base, then joins through a membrane, rounded at the tip.

Median lobe, along with median struts, curved (Image 3C), 4.6mm long and 1.5mm wide, without setae; median lobe approximately 1/3 longer than median struts, which are slightly broader and tapering apically; median orifice bluntly pointed at its ventral side, median foramen elongate (Image 3B); median struts broadest



Image 1. *Sarothroceria lowii* male. A - dorsal view (scale: 1.0mm), B - ventral view. © Kolla Sreedevi.

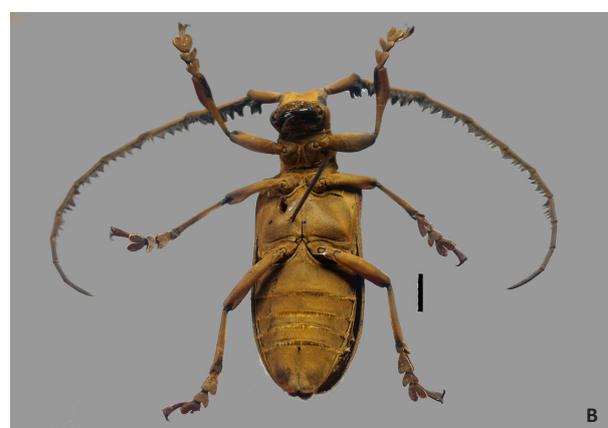


Image 2. *Sarothroceria lowii* female. A - dorsal view (scale: 1.0mm), B - ventral view. © Kolla Sreedevi.

and rounded at base, less sclerotized and lighter in remaining half (Image 3A).

Sternite VIII broader than long (length 1.6mm and width 2.32mm), apically sinuate, roughly trapezoidal, with long setae at apex, setae covering 1/4 portion close to apex and along margin (Image 6A), a protruding Y-shaped process in middle (Images 6A,B), 1.9mm long and 1.2–1.3 mm wide (from broader end) with setae on broader end. Tergite VIII as shown in Image 6B.

Female (Images 2A,B)

The female of this species was described adequately by Ghate et al. (2012). Therefore, here we are describing only the salient distinguishing features of the female.

The species shows distinct sexual dimorphism. Female is almost 1.5 times larger and stouter than males. In female, antennae almost equal or little longer than body length, with characteristic presence of tufts of black hairs on inner side on antennomeres 1–8, which is the most prominent character, whereas in males, antennae are 1.5 times longer than body, covered with setae only up to base of IV antennomere.

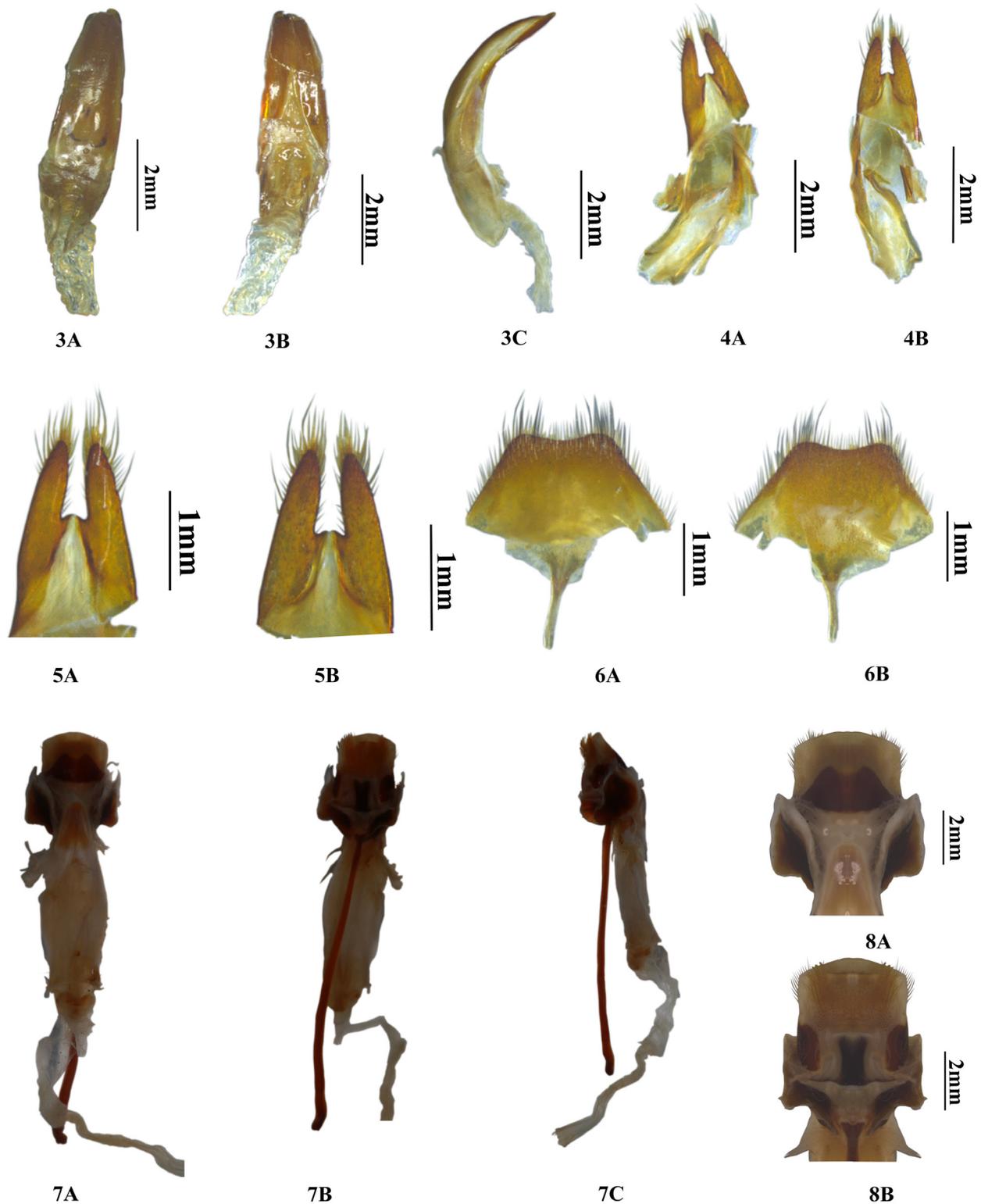
Another distinguishing feature is pronotal lateral spines are sharper and pointed in females than males (Images 2A,B). See Table 1 for various dimensions.

Description of female genitalia (Images 7 & 8)

Female terminalia light brown with dark brown to blackish shades (Image 7). Tignum (Image 7) 19mm long and 1mm wide, almost equal to abdominal length, with slight twist or bent at apex (Image 7). Tergite VIII (Image 8A) little curved apically or slightly convex, possessing setae along apical margins, having two petal-like sclerotized structures, that are 3mm long and 2.7mm wide (Image 7C). Sternite VIII (Image 8B) 4.01mm long and 3.78mm wide, apical edge straight, furnished with a bunch of long light-brown or yellowish setae on either side and some small setae scattered on discal surface.

Distribution: Borneo, India (Manipur, Arunachal Pradesh, and Nagaland (present report)), Indonesia, Laos, Myanmar, Sumatra, Thailand, Vietnam, and western Malaysia.

Comments: This is the only species described so far under the genus *Sarothroceria*. It is widely distributed in



Images 3–6. *Sarothroceria lowii* genitalia. 3 - median lobe and median struts A) dorsal, B) ventral, C) lateral; 4 - Tegmen A) dorsal, B) ventral; 5 - Upper lobes of tegmen A) dorsal, B) ventral; 6A - Tergite VIII, 6B - Sternite VIII. Images 7–8. *Sarothroceria lowii* female terminalia 7A) - dorsal, 7B) - ventral, 7C) - lateral; 8A - Tergite VIII, 8B - Sternite VIII. © Kolla Sreedevi.

Table 1. Morphometrics of adult *Sarothroceria lowii*.

	Characters	Male		Female	
		Length (in mm)	Width (in mm)	Length (in mm)	Width (in mm)
1.	Body	42	12	53	16
2.	Head	12	6	16	8
3.	Antennae	59.1		55.5	
4.	Mandibles	4	1.8	5	2
5.	Clypeus	0.6–0.7	2	0.8	2.5
6.	Thorax	10 (including spines)	7	13 (including spines)	8
7.	Scutellum	2	1	3	2
8.	Elytra	23	12	33	16
9.	Abdomen	15	11	20	14

southeastern Asia, but probably is a rare species. The species was found earlier in Manipur and, therefore, it is likely that it is present in other northeastern states of India. It is, therefore, necessary to conduct more surveys to assess the occurrence of this species in the various parts of this region.

REFERENCES

- Ghate, H.V., S. Riphung & N.S.A. Thakur (2012).** First record of the long-horned beetle *Sarothroceria lowii* White, 1846 (Cerambycidae: Lamiinae: Lamiini) from India. *Journal of Threatened Taxa* 4(7): 2709–2712; <https://doi.org/10.11609/JoTT.o2890.2709-12>
- Kumawat, M.M., K.M. Singh & V.V. Ramamurthy (2015).** A checklist of the long-horned beetles (Coleoptera: Cerambycidae) of Arunachal Pradesh, northeastern India, with several new reports. *Journal of Threatened Taxa* 7(12): 7879–7901; <https://doi.org/10.11609/JoTT.o4007.7879-901>
- Lin, M., O. Montreuil, G. Tavakilian & X. Yang (2009).** Reinstatement of the genus *Heteroglenea* Gahan, with four new combinations, four new synonyms and three new species (Coleoptera: Cerambycidae: Lamiinae: Saperdini). *Zootaxa* 2137: 1–22.
- von Breuning, S. (1943).** Étudessur les Lamiines, Douzième tribu: Agniini Thomson. *Novitates Entomologicae, Supplement 3* 106: 273–280.
- White, A. (1846).** Description of four apparently new species of longicorn beetles in the collection of the British Museum. *Annals and Magazine of Natural History* 18: 47–49.
- Yamasako, J. & N. Ohbayashi (2011).** Review of the genus *Paragolsinda* Breuning, 1956 (Coleoptera, Cerambycidae, Lamiinae, Mesosini), with reconsideration of the endophallic terminology. *Zootaxa* 2882(1): 35–50; <https://doi.org/10.11646/zootaxa.2882.1.4>





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ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)

February 2019 | Vol. 11 | No. 3 | Pages: 13251–13418

Date of Publication: 26 February 2019 (Online & Print)

DOI: 10.11609/jott.2019.11.3.13251-13418

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