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Journal of Threatened Taxa

10.11609/jott.2023.15.1.22355-22558

www.threatenedtaxa.org

26 January 2023 (Online & Print)

15(1): 22355-22558

ISSN 0974-7907 (Online)

ISSN 0974-7893 (Print)

Open Access





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

Publisher
Wildlife Information Liaison Development Society
www.wild.zooreach.org

Host
Zoo Outreach Organization
www.zooreach.org

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Cover: Whale Shark *Rhincodon typus* and Reef - made with poster colours. © P. Kritika.



First record of the long-horned beetle *Niphona fuscatrix* (Fabricius, 1792) (Coleoptera: Cerambycidae: Lamiinae) from the Western Ghats, India

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Abstract: A long-horned beetle, collected when attracted to light, was identified as *Niphona fuscatrix* (Fabricius 1792). This species is reported for the first time from western India (Shivaji University, Kolhapur, Maharashtra).

Keywords: Kolhapur, male genitalia, Pteropliini.

The keys and descriptions of the various species of Indian Cerambycidae (without Lamiinae) is provided by Gahan (1906). Because there are no keys for Indian Lamiinae, there are many difficulties in identifying its members. The subfamily Lamiinae Latreille, 1825 is the most diverse subfamily of long-horned beetles (Švácha & Lawrence 2014) and Mulsant (1839) described the genus *Niphona* with the species *Niphona picticornis*. It is a widely distributed genus known from Palearctic region, Afrotropical region, western Africa, central Africa, eastern Africa, southern Africa, northern Africa, western Palearctic region, northeastern Palearctic region, southeastern Palearctic region, southern Asia, northern Asia, southeastern Asia, Europe, and Australasian region as per the website of 'Lamiines of the World'. The genus *Niphona* consists of three subgenera, viz., *Hammatoniphona* Pic, 1936, *Niphona* Mulsant,

1839, and *Spinoniphona* Hua, 1989 of the subfamily Lamiinae (Danilevsky 2020) and the tribe Pteropliini. Breuning (1962) provided keys for the tribe Pteropliini Thomson, 1860 (metasternum short, mid-tibia without dorsal groove, mid-coxal cavities open), with key for 50 species of *Niphona* in German language. The species was identified as *Niphona* (*Niphona*) *fuscatrix* vide keys by Breuning (1962). Majumder et al. (2015) provided photographs, diagnosis, and distribution of *N. fuscatrix* which helped in identification of this beetle.

The species *N. fuscatrix* was first described by Fabricius in 1792 as *Lamia fuscator* from Nagapattinam, India. It is reported from Tamil Nadu, Uttarakhand, Himachal Pradesh, Kashmir, Punjab, Madhya Pradesh (Kariyanna et al. 2017), and Odisha (Majumder et al. 2015). The present communication is based on a male specimen collected from the Shivaji University Campus, Kolhapur, Maharashtra.

MATERIALS AND METHODS

Material examined: SUKZ, Ceramb-191, 21.vi.2018, 1 male, Shivaji University, Kolhapur, Maharashtra, India, 16.678° N, 74.255° E, 595 m, coll. P.B. Patil, presently preserved in the Department of Zoology,

Editor: Anonymity requested.

Date of publication: 26 January 2023 (online & print)

Citation: Mane, Y.K., Patil, P.B. & S.M. Gaikwad (2023). First record of the long-horned beetle *Niphona fuscatrix* (Fabricius, 1792) (Coleoptera: Cerambycidae: Lamiinae) from the Western Ghats, India. *Journal of Threatened Taxa* 15(1): 22528–22532. <https://doi.org/10.11609/jott.7512.15.1.22528-22532>

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Funding: Shivaji University, Kolhapur.

Competing interests: The authors declare no competing interests.

Acknowledgements: The authors would like to thank the head, Department of Zoology, Shivaji University, Kolhapur for providing laboratory facilities and financial assistance under the Golden Jubilee Research Fellowship.



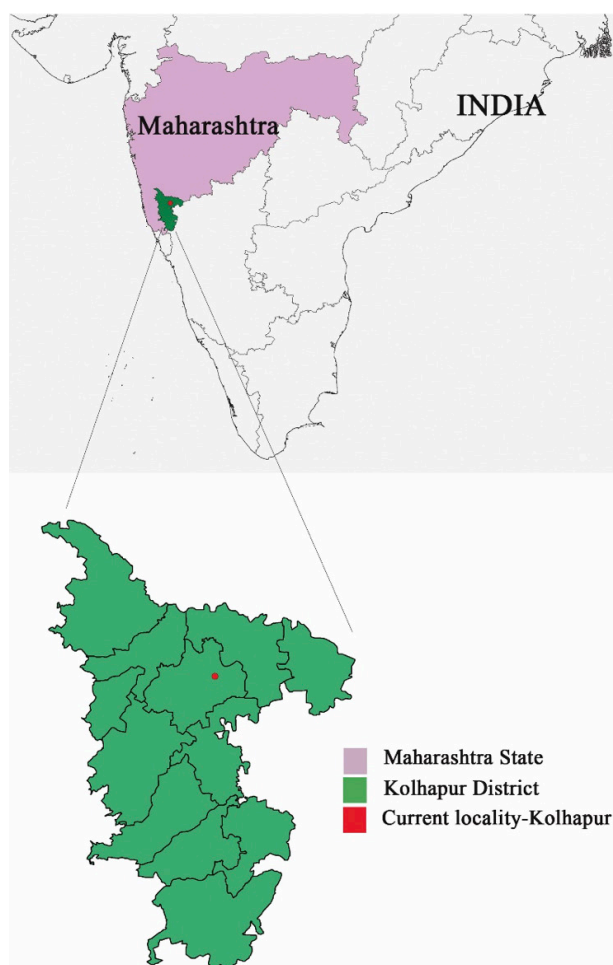


Figure 1. New locality Kolhapur for *Niphona fuscatrix* in India.

Shivaji University, Kolhapur. The specimen was studied under a Nikon stereozoom (SMZ 800) microscope and photographed by using Canon 550D camera with a 100 mm lens at various focal lengths and then stacked in Photoshop CC software for better illustration of diagnostic characters. Measurements were done with digital Vernier caliper. The male genitalia were dissected out from terminal abdominal segments with the help of fine forceps. The genitalia were kept in 10% KOH solution overnight (Majumder et al. 2014). Male genital parts were separated and photographed using Lynx LM-52-3621 stereozoom microscope. Terminology for genitalia follows Ehara (1954). The coordinates of the collection sites were taken from the website, LATITUDE (<https://latitude.to/articles-by-country/in/india/21549/shivaji-university>), which was further used in preparing maps of the sampling sites in DIVA-GIS software (Figure 1).

RESULTS

Body—Medium size (16.9 mm long, 6 mm width at humerus), relatively brown, stout, with dense, golden pubescence dorsally & mixed whitish pubescence ventrally, including on legs (Image 1A,B,C). **Head**—Small (4.2 mm frontal height, 0.7 mm length), densely pubescent, slightly convex at clypeus and concave medially in frontal region, vertex broad; mandibles strong with black apices; palpi brown; eyes coarsely faceted, divided into upper small & lower large lobe joined with minute, narrow ommatidia-less connection at outer side of antennal socket; antenna 11 segmented, brown, with small yellow patches of pubescence, inner side densely pubescent, first segment swollen and robust, second segment short, as long as broad and smallest (Image 1A,a,c), inner side of each antennomere with long setae. **Pronotum**—(3.7 mm length, 4.7 mm width excluding anterior spine) coarsely punctured, with irregular ridges, densely pubescent with two lateral hornlike strong spines on each side with anterior spine slightly larger (Image 1F); scutellum tongue shaped, small, dark brown with yellowish margin, pubescent, broader than long (Image 1A,b). **Elytra**—(12.4 mm long, width 6.0 mm between humeral angles) pubescent, densely & deeply punctate basally, with three broad brown transverse bands basal dark, middle pale, apical is more paler (Image 1d); large globular tubercles at humeral region; two erect vertical tuft of brown pubescence basally one on either side of suture which look like small tooth when seen laterally (Image 1e), similar but small tufts are at 3/4th length of the elytra; posterior margin noticeably narrowed, curved, subrounded with brown fringed hairs (Image 1d). **Thoracic Sternum**—Strong prosternal & mesosternal processes on the anterior & posterior edge, processes covered with creamy white, dense pubescence; mesosternum large; legs fairly strong, but short with hind femora not reaching apex of abdomen; fore femur with strong carina on ventral side (Image 1B), mid-coxal cavities open to epimera.

Male genitalia (Image 2A): Median lobe—Weakly projected through ringed part, longer than median struts, median foramen not elongated (Image 2B,C,D), median orifice is visible in ventral & lateral view (Image 2A,D), struts are wider & curved medially, in between which internal sac is seen (Image 2F,G,H). Lateral lobes (parameres)—Separated, broad, sub-rounded, densely covered with setae at the apex, ringed part constricted, broad medially and converging (Image 2F,G,H,I); VIIIth tergite—With numerous apical setae, somewhat pentagonal, marginate with pointed apex; apical corners and point with numerous setae (Image 2E).

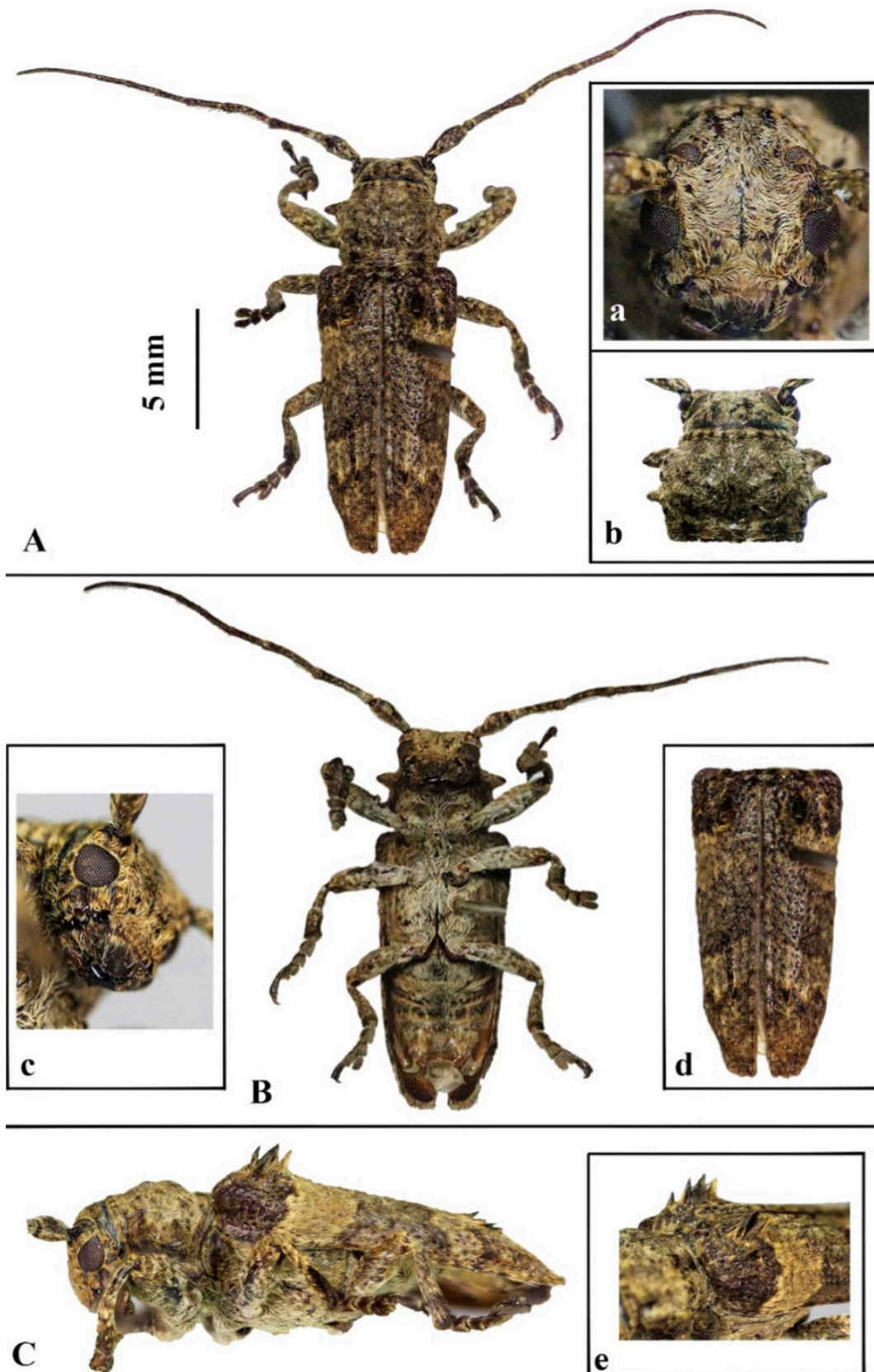


Image 1. Habitus of *Niphona fuscatrix* Fabricius, 1793: A—Dorsal view | B—Ventral view | C—Lateral view. Inset: a—Head in frontal view | b—Pronotum (magnified view) | c—Eye (magnified view) | d—Elytra (magnified view) | e—Elytral base (magnified lateral view showing vertical crest). © Yogesh Mane.

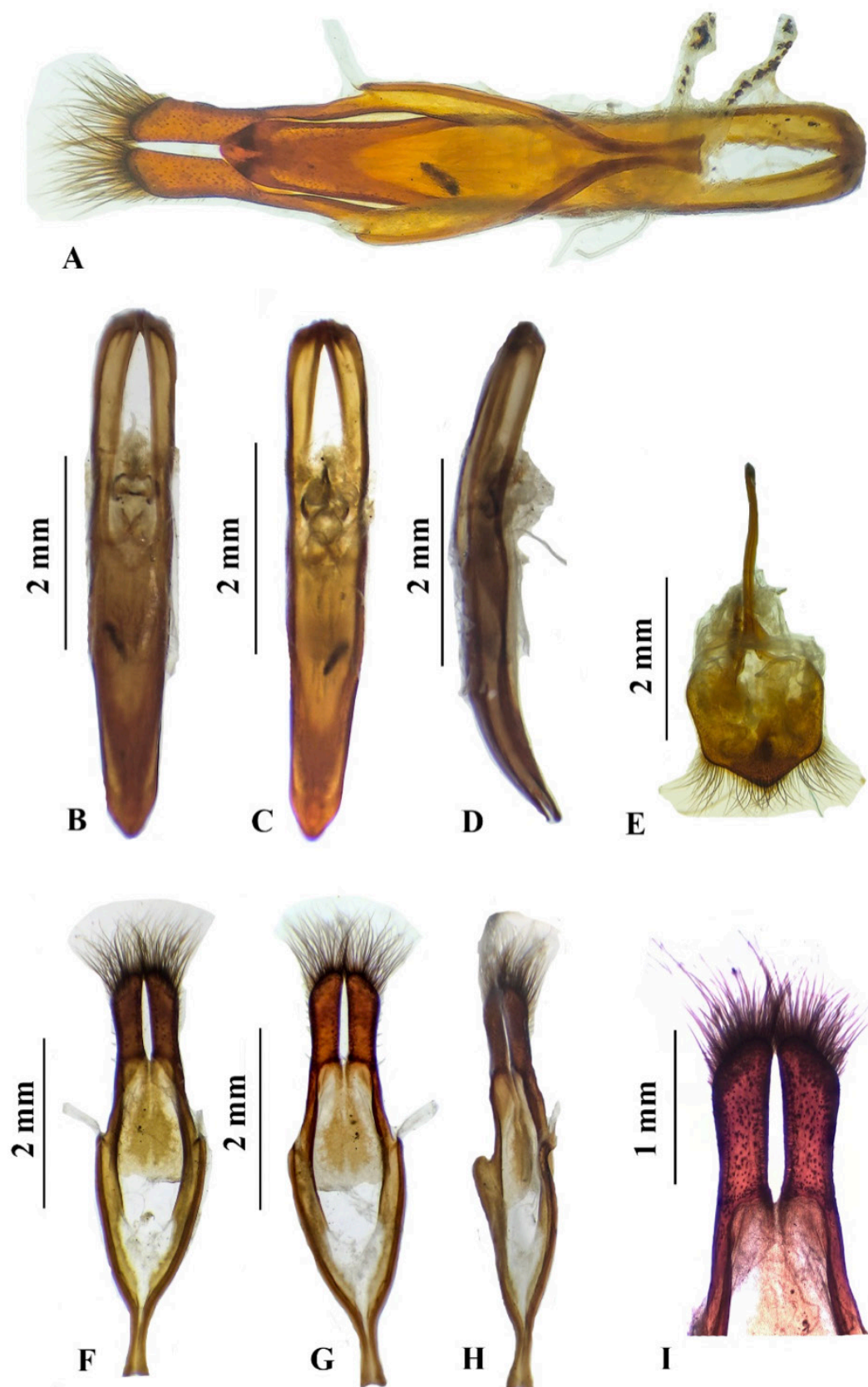


Image 2. *Niphona fuscatrix* Fabricius, 1793 male genitalia: A—Aedeagus in ventral view | B—D—Median Lobe: B—Dorsal view | C—Ventral view | D—Lateral view | E—Tergite VIII | F—I Tegmen: F—Dorsal view | G—Ventral view | H—Lateral view | I—Magnified view of upper lobe. © Priyanka Patil.

DISCUSSION

The genus *Niphona* Mulsant, 1839 is mainly distributed in the Palearctic, Ethiopian, Oriental, and Australian regions (Lamiines of the World website).

The characters of *N. fuscatrix* given by Breuning (1962), Majumder et al. (2015) and the photos on the website 'Lamiines of the World' match with our specimen confirming that the species in question is *N. fuscatrix*. The fauna of Maharashtra is known to include 59 species of cerambycid beetles including 23 species of Lamiinae (Ghate 2012). However, the list does not include *N. fuscatrix*. The male genitalia of *N. fuscatrix* are described here for the first time with color photographs. Among the previously reported sites (from where this species was recorded), Salem and Nagapattinam in Tamil Nadu are the closest to the current locality, Kolhapur which is about 692 km and 980 km (aerial distance) away from these places, respectively. The present record extends its known geographical range notably westward and is an addition to the fauna of Maharashtra as well as the Western Ghats.

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Print copies of the Journal are available at cost. Write to:
The Managing Editor, JoTT,
c/o Wildlife Information Liaison Development Society,
43/2 Varadarajulu Nagar, 5th Street West, Ganapathy, Coimbatore,
Tamil Nadu 641035, India
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Journal of Threatened Taxa is indexed/abstracted in Bibliography of Systematic Mycology, Biological Abstracts, BIOSIS Previews, CAB Abstracts, EBSCO, Google Scholar, Index Copernicus, Index Fungorum, JournalSeek, National Academy of Agricultural Sciences, NewJour, OCLC WorldCat, SCOPUS, Stanford University Libraries, Virtual Library of Biology, Zoological Records.

NAAS rating (India) 5.64



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

January 2023 | Vol. 15 | No. 1 | Pages: 22355–22558

Date of Publication: 26 January 2023 (Online & Print)

DOI: 10.11609/jott.2023.15.1.22355-22558

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