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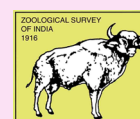
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Cover: Emperor Tamarin *Saguinus imperator*: a look into a better world through the mustache lens – mixed media illustration. © Maya Santhanakrishnan.



strong apical claw. In females, the 8th tergite is usually longitudinally divided into two discrete sclerites; fused cerci are cylindrical, with a glabrous dorsal, saddle-shaped area, usually with prominent hooked setae, and the remainder microtrichose with scattered setae (Yukawa et al. 2019 & Gagné 2018).

***Lasioptera sharma* Vasanthakumar sp. nov.**

(Figure 1–6; Image 1–7)

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Material examined

Holotype: Ent 10/269 (on slide), 10.vii.2021, male, Mollem (15.3777°N; 74.23059°E), Goa, India, collected as gall by P.S. Bhatnagar & party, ZSI WRC, Pune.

Paratypes: 3 males (Ent 10/270), 5 females (Ent 10/271), 4 pupa (Ent 10/272), 4 pupal exuviae (Ent 10/273), 4 larva (Ent 10/274) same data as holotype.

Description: Head: Eyes connate, 4–5 facets long at the vertex, facets circular, closely adjacent. Frontoclypeal setae 30–36 in number. Palpus 3-segmented, segments successively longer, first palpal segment 21 µm, second 33–35 µm, third 36–39 µm (Figure 1). Antenna: scape, pedicel globose, densely covered with scales; flagellomeres 12–15 in male (n = 4), 17–19 in female (n = 5); first two flagellomeres partially fused, node of third flagellomere about 33–35 µm, 1.2 times as long as wide (Figure 2), remaining flagellomeres except for apical rectangular, wider than long.

Thorax: Wing: length in males, 1.5 mm (n = 4); in females, 1.7 mm (n = 5) 2.2–2.4 as long as wide (Figure 3). Legs covered by dark brown scales. Tarsal claws toothed; teeth curved near the base. Empodia as long as claws (Figure 3).

Male abdomen: Tergites 1–6 rectangular with two trichoid sensilla anteriorly and row of setae posteriorly; Sclerotization of tergite 7–8 reduced to narrow band, with two anterior trichoid sensilla and no posterior setae; Sternites 2–7 quadrate with anterior pair of closely adjacent trichoid sensilla, row of strong setae posteriorly and few strong setae mesally; sclerotization of sternite 8 greatly reduced anteriorly, without anterior trichoid sensilla, with numerous strong setae mesally and posteriorly. Terminalia: gonocoxite with numerous strong setae evenly distributed ventrally, posterior two-thirds dorsally; gonostylus broadened basally, tapering apically, with scattered setae, microtrichose only basally, well-developed tooth apically; mediobasal lobe sheathing aedeagus, slightly shorter than aedeagus; cerci separated by a deep notch; hypoproct entire, shorter than aedeagus; aedeagus rounded apically,

longer than cerci (Figure 5).

Female Abdomen: Tergites 1–7 as of male, tergite 8 divided into two longitudinal sclerites, each widened posteriorly with one anterior trichoid sensilla at mid-length and a few setae posteriorly. Sternites 2–7 as of male, sternite 8 not apparent. ovipositor with a laterodistal group of 42–46 curved setae; cercus with 06 large, hooked setae on dorsal saddle-shaped area and straight setae posteriorly (Image 7).

Larva (Image 2): white, with dark brown spatula; Length 1.4–1.6 mm. Antenna is about twice as long as wide. Cephalic apodemes are about twice as long as a head capsule. Spatula with a long shaft and two pointed anterior teeth separated by v-shaped notch (Figure 4). On each side of the spatula one sternal papilla and four lateral papillae, all asetose. Terminal segment with six papillae (Figure 6).

Pupa (Image 6): Orange when young, brown when mature. Length 1.6–1.9 mm. Antennal bases developed into two distinct triangular serrated horns (Image 5). cephalic setae 50–55 µm long; prothoracic spiracle elongate, curved, 87–90 µm long. Abdomen uniformly covered with tiny spicules.

Gall: Leaf gall (Image 1), sub-cylindrical or sub-globose, nearly equally developed on both sides of the leaf blade, though often the hypophyllous part is somewhat larger and narrower than the epiphyllous, yellowish-green or brown, glabrous, solid, hard, indehiscent; larval chambers 4 per gall (Image 1a); more than 10 galls per leaf; exit hole, epi or hypophyllous (Image 4); size 10–14 mm long and 5 mm thick (Mani 2000).

Etymology: The species is named in the honour of Dr. Radheshyam Muralidhar Sharma, an eminent Indian Cecidologist. The specific epithet is used here as a noun in apposition.

Host plant: *Leea indica* (Burm.fil.) Merr. (Vitaceae) commonly known as Bandicoot Berry, is an evergreen perennial shrub distributed in India, Sri Lanka, throughout South Asia, to northern Australia, Solomon Islands, New Hebrides, and Fiji. This plant has numerous medicinal properties and used for treating various diseases (Chatterjee & Prakash 2003).

Distribution: India: Maharashtra, Pune district, Tamhini (18.4738°N; 73.418°E); Goa: South Goa district, Mollem National Park (15.3777°N; 74.23059°E).

Remarks: *Lasioptera sharma* sp. nov. differs from all other Indian species in having the following characteristics. Palpus 3-segmented, third female flagellomeres 1.2 times as long as wide, empodia longer than bend in claws, female cercus with 06 large

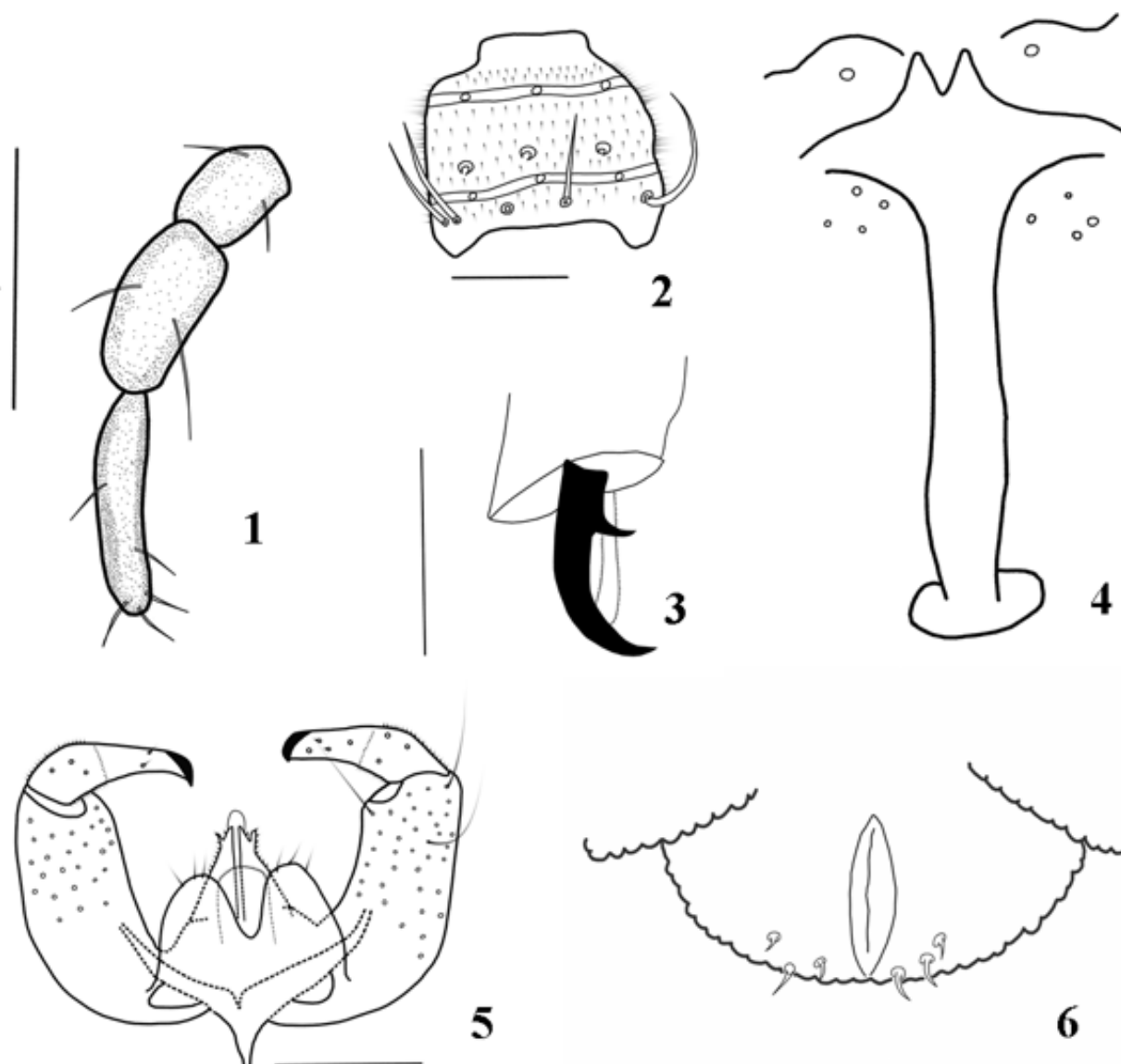


Figure 1–6. *Lasioptera sharma*, sp. nov.: 1—Palpus | 2—3rd female flagellomere | 3—tarsal claw with empodium | 4—prothoracic spatula with adjacent papillae | 5—male terminalia (dorsal) | 6—Larva, terminal segment with adjacent papillae. Scale bars = 50 μ m (1,3,5); 25 μ m (2).

hooked setae on dorsal saddle-shaped area, gonostylus broadened basally, tapering apically, the proportion of aedeagus, cerci, and hypoproct.

The present species is closely related to *L. manilensis* Felt 1918. However *L. manilensis* can be distinguished from *Lasioptera sharma* sp. nov., by the structure of the ovipositor, the number of hooked spines the absence of apically broadened setae on the cerci, and the proportion of third female flagellomere. Also, the galls produced by *L. manilensis* contain only one chamber whereas the galls produced by *L. sharma* contain 4 chambers. We could not compare this species with the adult male and immature stages of *L. manilensis* as the latter has been

described only based on the adult female.

Lasioptera sharma sp. nov. is the first report of a *Lasioptera* species from the family Rutaceae from India. Kolesik & Gagné (2020) have mentioned in the monograph that the species of *Lasioptera manilensis* Felt, 1918 causing leaf galls on *Leea manillensis* Walp. (Rutaceae) from Philippines. A similar type of gall is also reported from *Leea indica* but no adults have been described from it (Kolesik & Gagné 2020).

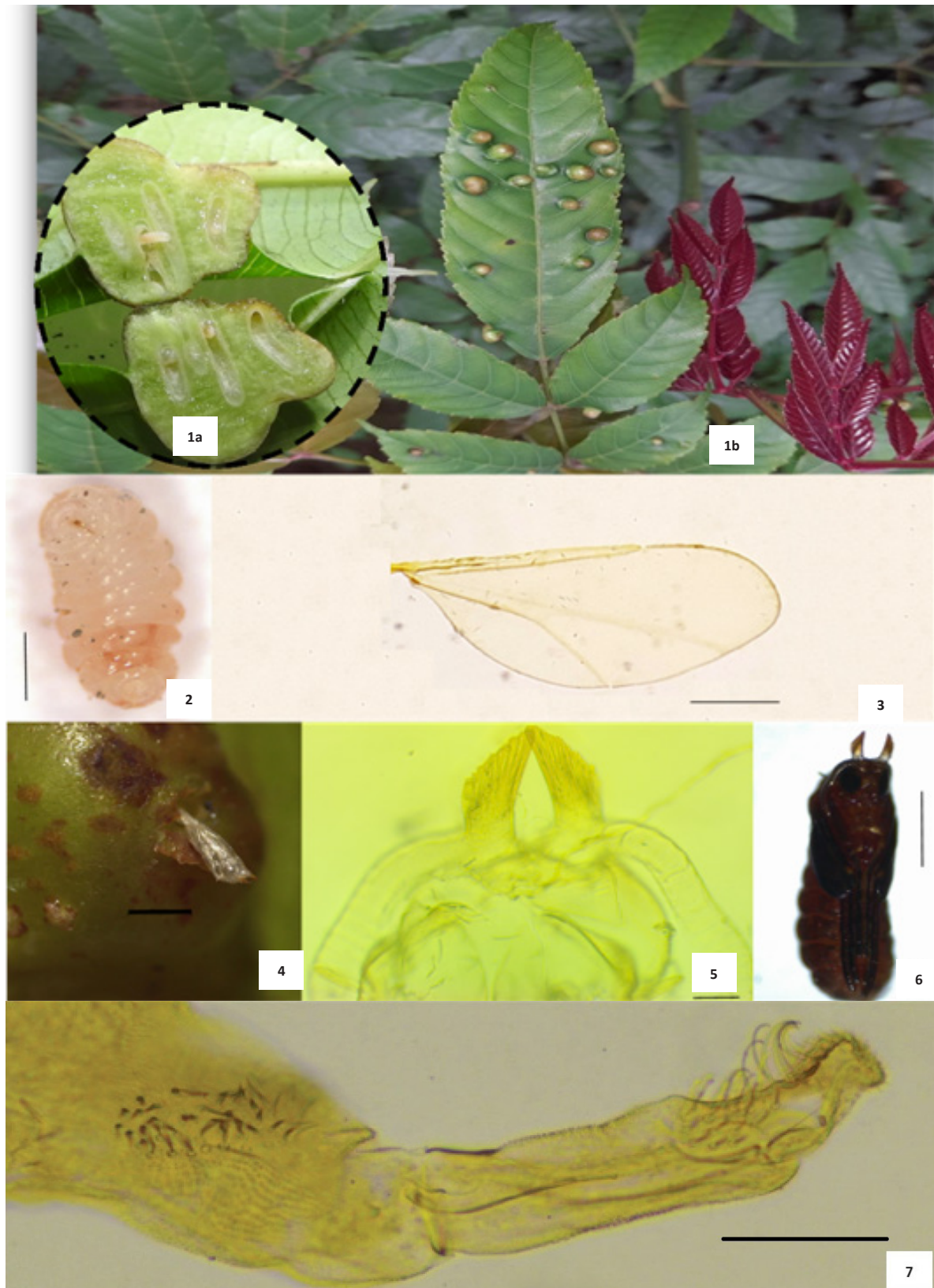


Image 1–7. 1—leaf gall | 1a—dissected gall showing larval chambers | 2—larva | 3—wing | 4—exit hole with pupal exuviae | 5—pupa showing antennal horn and prothoracic spiracle | 6—pupa | 7—end of ovipositor. Scale bars = 500 μ m (2,3,4,6); 100 μ m (5,7). © Duraikannu Vasanthakumar.

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