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FIRST REPORT OF THE AUSTRALIAN GALL MIDGE Actilasioptera tumidifolium Gagné, 1999 (Diptera: Cecidomyiidae) from Andaman Islands, India

Duraikannu Vasanthakumar & Radheshyam Murlidhar Sharma

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The genus Actilasioptera belonging to the tribe Lasiopterini was erected by Gagné in 1999 and includes six species (Gagné & Jaschhof 2017). Actilasioptera species differ from other Lasiopterini in having the ovipositor modified for piercing plant tissue, the whole ninth segment being glabrous, and nearly devoid of setae (Gagné

1999). Among the six species of *Actilasioptera*, five (*A. coronate*, *A. pustulata*, *A. subfolium*, *A. tuberculate*, and *A. tumidifolium*) are known from Australia and one (*A. falcaria*) from Indonesia. All the species of this genus have been known to cause galls on the leaves of the mangrove plant genus *Avicennia* (Avicenniaceae) (Gagné & Jaschhof 2017).

While identifying the collections of gall midges deposited in the Zoological Survey of India, Pune, we came across some specimens belonging to *Actilasioptera tumidifolium* Gagné. Here we present the first record of this species from the Andaman Islands, India, and a brief diagnosis and images of its diagnostic characters.

Gall midges were reared from the leaf galls of the mangrove species *Avicennia marina* from the Andaman Islands during a survey from 1981 to 1983 by one of the authors (RMS). Adults were dissected and mounted on microscope slides in Canada balsam. The slides were examined under Compound Microscope (Meopta 25210). Identification of midges was done with the help of literature (Gagné 1999; Sharma 2009).

Material examined: Ent 10/189, 12.vii.1982, India, Lohabari, South Andaman, 11.590°N & 92.612°E, 11m, coll. R.M. Sharma. Four males and 3 females dissected

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and mounted on slides (deposited in Zoological Survey of India, Western Regional Centre, Pune).

Distribution: Queensland in Australia (Gagné 1999) and Andaman Islands in India (new record).

Diagnosis: Antenna with scape cylindrical, longer than wide; pedicel spheroid; flagellomeres 12, each longer than wide, first and second flagellomeres connate (Image 1A); palpus 1-segmented with several setae (Image 1B). Tarsal claws with sinuous basal tooth; empodia as long as claws (Image 1C); wing length 2.5mm; R5 about 0.7 length of the wing (Image 1D); genitalia robust; gonocoxite cylindrical; gonostylus abruptly tapered beyond bulbuous base, setulose; hypoproct bilobed posteriorly; aedeagus narrow and curved ventrally at apex (Image 2A). Ovipositor modified for piercing plant tissue, the whole ninth segment glabrous and nearly devoid of setae (Image 2B).

Gall: Leaf gall. Discoid, lenticular, compressed, solitary or paired but never agglomerate, glabrous, rugose, pouch gall nearly equally visible from both sides of leaf blade, dark yellow when young but copper red as

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First report of Actilasioptera tumidifolium from Andaman Islands

Image 1 . Actilasioptera tumidifolium: A—Antennae | B—Palpi (scale=0.24mm) | C—Tarsal claw (scale=0.1mm) | D—Wing (scale=0.5mm). © D. Vasanthakumar.

grown old, indehiscent, persistent; gall cavity unilocular containing many larvae inside, pupation inside the gall cavity, pupal period 3–4 days; larvae parasitized by chalcids; ostiole hypophyllous, minute, usually 5–14 exit holes seen in a mature gall. Size 5–12 mm in diameter. Number of galls per leaf varies from one to four (Sharma 1989).

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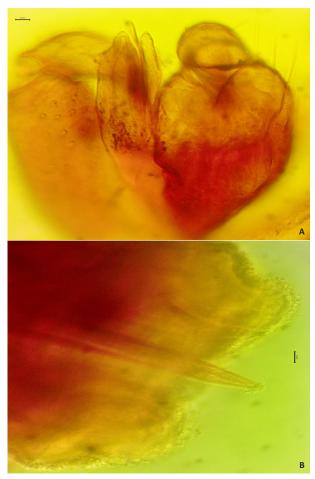


Image 2. Actilasioptera tumidifolium: A—Male genitalia | B— Ovipositor (scale–0.1mm). © D. Vasanthakumar.

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