



***Diaphanes olivieri* Gorham 1895 (Coleoptera: Lampyridae: Lampyrinae) in Sri Lanka: Rediscovery and First Record of Female**

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ABSTRACT

We re-describe the male of *Diaphanes olivieri* Gorham almost 128 years after its first description and report its reliably associated flightless female for the first time based on the specimens collected from Rammale Forest Reserve, Intermediate climatic Zone, Southern Sri Lanka in 2023. The external morphology and genitalia, mating behavior, and habitat of males and females are described.

Key words: Lampyrinae, Rammale forest reserve, rediscovery, flightless female, Sri Lanka

Introduction

The genus *Diaphanes* Motschulsky is taxonomically diverse and the bulk of which are found in the Afro-tropical, Indo-Malayan, and Palearctic biogeographic realms (Motschulsky, 1853; Olivier, 1907, 1910; McDermott, 1964, 1966). Motschulsky (1853) described the genus *Diaphanes* and designated *Diaphanes luniger* Motschulsky 1853 as its type species, which was first recorded from Northern India. The Taiwanese species of *Diaphanes* were re-described by Jeng *et al.* (2001), including both males and flightless females. Martin *et al.* (2009) provided limited information on *Diaphanes* in their study of the reclassification of Lampyridae.

The fauna of Sri Lankan *Diaphanes* fireflies are poorly studied. The knowledge gaps remain

due to insufficient studies and information after the original species descriptions. Recently, Wijekoon has started to work on the fauna of *Diaphanes* in Sri Lanka through contemporary field surveys (Wijekoon and Wegiriya, 2021; Wijekoon *et al.*, 2021) and investigations on the repository specimens at the National Museum, Colombo, Sri Lanka (Wijekoon *et al.*, 2016).

According to the species catalogue of McDermott (1966), two *Diaphanes* species were initially recorded from Sri Lanka, including *D. bugnioni* Bourgeois and *D. lutescens* Walker. However, the repository records of the National Museum in Sri Lanka have four *Diaphanes* species [*D. lutescens*, *D. olivieri* Gorham, *D. taprobanus* (Walker), and *D. vitrifera* (Walker)] (Wijekoon *et al.*, 2016). *Diaphanes taprobanus* Walker is a synonym for *D. lutescens* Walker

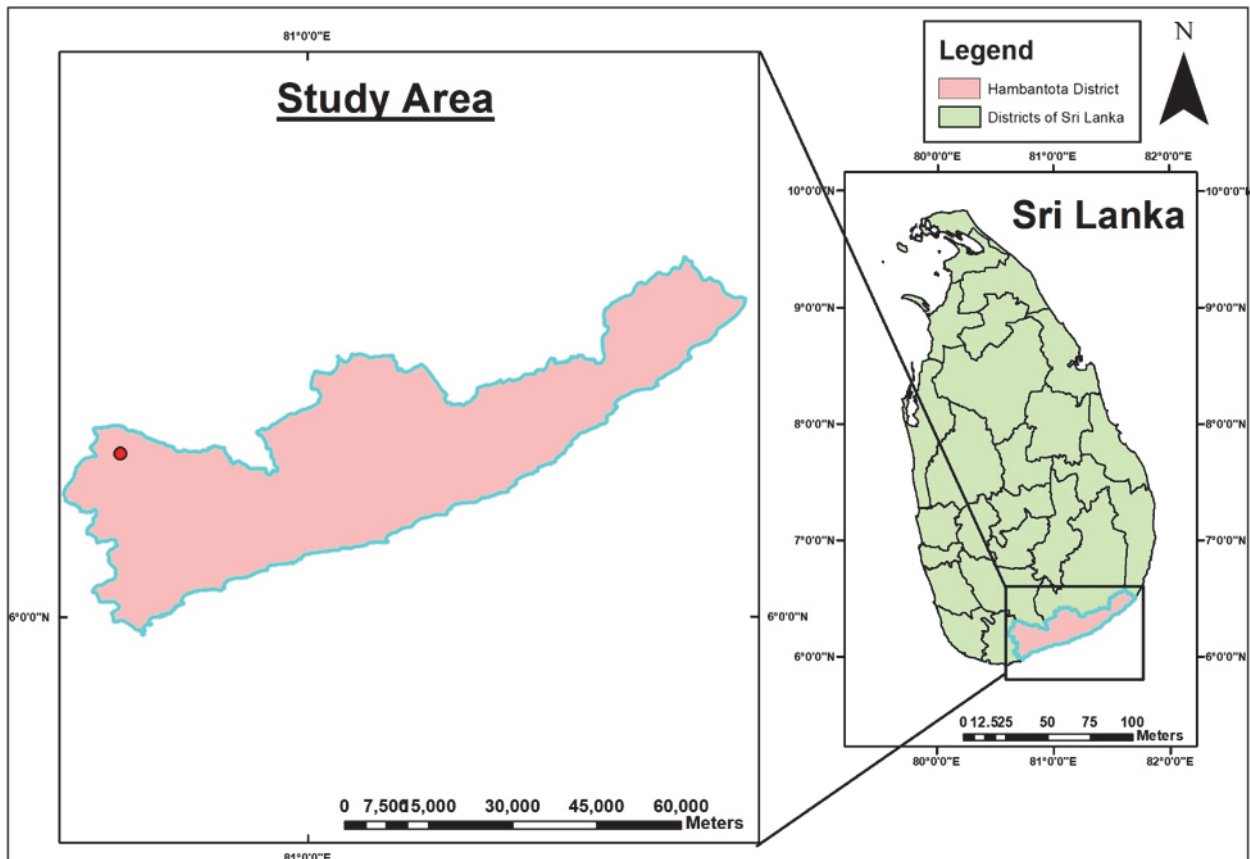


Fig. 1. Location of *D. olivieri* recorded (Rammale Forest Reserve (6°14'36.7"N, 80°39'09.1"E), Walasmulla, Southern Province, Sri Lanka)

(Olivier, 1911; McDermott, 1966). McDermott (1966) listed *Lampyrus vitrifera* Walker (1858) as *Incertae sedis*. It is unclear who transferred this species to *Diaphanes*; it is probably not formally nomenclatural. Hence, the validity of *D. vitrifera* specimens identified by Wijekoon *et al.* (2021) needs further verification.

As a result, there are three taxonomically valid *Diaphanes* (*D. lutescens*, *D. olivieri*, and *D. bugnioni*) distributed in Sri Lanka up to date. Among them, *D. lutescens* was re-described by Wijekoon and Wegiriya (2021), and two other *Diaphanes* species recorded in Sri Lanka have not been addressed since their original descriptions.

In the present study, we report the specimens of *D. olivieri* in 2023 from Rammale Forest Reserve, Intermediate Zone, Southern Sri Lanka, highlighting the rediscovery 128 years after its first description in India. We present information on the morphology and genitalia, mating behavior, and habitat of both males and newly associated flightless females.

Abbreviations for taxonomic characters and depositories:

DZURSL	Department of Zoology, University of Ruhuna, Sri Lanka
DFC	Department of Forest Conservation, Sri Lanka
DWLC	Department of Wildlife Conservation, Sri Lanka
LL	Lateral lobes, aedeagus
LO	Light organ
ML	Median lobe, aedeagus
NMCSL	National Museums, Colombo, Sri Lanka
T	abdominal tergites
V	abdominal ventrites

Materials and Methods

Sampling location and specimen collection

The study site is Rammale Forest Reserve (6°14'36.7" N, 80°39'09.1" E), Walasmulla, Southern Province, Sri Lanka (Fig. 1). Permission to study fireflies in Rammale forest reserve was granted by the DWLC and the DFC,

Sri Lanka (WL/3/2/53/22). The specimen collection was carried out from the time 17:30 to 22:00 of each sampling day from January to August 2023 during seven sampling nights (sampling dates: 23. I. 2023, 21. I. 2023, 25. III. 2023, 16. IV. 2023, 18. V. 2023, 23. VI. 2023, and 08. VIII. 2023). Flying males were observed by their light and collected using an insect net (30.5 cm/12 inch). Flightless females were first detected by their light and then collected by hand for close examination while mating with males in the same habitat. A selected number of specimens (three males and three females, according to the restricted guidelines of the DWLC and DFC Sri Lanka and since they have declared 'Rammale Forest' to the 'Strict Forest Reserve' category) were collected in glass vials and subsequently stored at -20°C in the lab's freezer for further identification and confirmation. Collected males and females were identified by comparison with the original description, repository specimens (paralectotypes males; NMCSL), and literature records of Lampyrids in Southeast Asia (Motschulsky, 1853; Gorham, 1880; Olivier, 1907, 1910; McDermott, 1964; 1966; Ho, 1997; Jeng *et al.*, 1999, 2000, 2001, 2003).

Morphometric measurements and examination

All specimens were examined in the Department of Zoology's research laboratory at the University of Ruhuna using a light microscope (Nikon ECLIPSE-E100, with an ocular graticule micrometer). Male genitalia were dissected according to the methods described in Ballantyne and Lambkin (2009) and Ballantyne *et al.* (2019). Dissected genitalia were kept in 70% ethanol in genitalia vials, labeled, and stored in DZURSL.

A digital camera (Nikon D90, 60mm micro, 12 mpxl) was used to photograph whole specimens. Male genitalia were photographed using a monocular compound microscope equipped with a camera (Optika, MPRO6, 4083.B9, x 86, Italy).

Results

Family: Lampyridae Rafinesque, 1815

Subfamily: Lampyrinae Rafinesque, 1815

Genus: *Diaphanes* Motschulsky, 1853

Diaphanes Motschulsky, 1853: 44. Gorham, 1880: 90. Olivier, 1885: 345; 1907: 40; 1911:81. McDermott, 1964: 17; 1966: 10. Jeng *et al.*, 2001; 203-235. Li and Liang, 2007: 53. Martin *et al.*, 2009: 3. Wijekoon *et al.*, 2016: 70-71. Wijekoon *et al.*, 2021: 13. Wijekoon and Wegiriya, 2021: 427.

Diagnosis:

Male- Clear pronotal areolet areas, which are unclear in *Lampyris* and *Nyctophila*; size of head to pronotum and eyes to head bigger than *Pyrocoelia* (Jeng *et al.*, 2001); elytra pale to black, a semi-circular-shaped pronotum with lateral expansions; antennae moniliform or filiform (Jeng *et al.*, 2001) except for *D. pectinealis* which has a pectinate antenna (Li and Liang, 2007).

Female- All known species either apterous or possess short elytral rudiments; bigger or smaller than conspecific males; milky white or brownish yellow body (Olivier, 1910; Jeng *et al.*, 1999); pronotum semi-elliptic and translucent; pink markings on the thoracic terga and sterna; pair of spots like LO in each V6 and V7; pygidium weakly trisinate.

Species of *Diaphanes* (taxonomically valid) in Sri Lanka

D. lutescens Walker, 1858

D. olivieri Gorham, 1895

D. bugnioni Bourgeois, 1909

***Diaphanes olivieri* Gorham 1895**

Diaphanes olivieri; Gorham, 1895. Olivier, 1907: 55; 1910: 47. McDermott, 1964: 47; 1966: 118. Wijekoon *et al.*, 2016: 70-71.

Material examined. (Not examining the syntypes from India), 4 paralectotypes males, Colombo, SRI LANKA (NMCSL); 1 male (23. I.2023), 1 male, 1 female (16.IV.2023), 1 male, 2 females (08.VIII.2023), SRI LANKA, Southern Province, Walasmulla (6°14'36.7"N 80°39'09.1" E, 184 m), Collectors: D.R. De Silva and T. I. Madushanka (DZURSL).

Diagnosis.

Male- 16.5-17.0 mm long; black elytra distinct other than *D. lutescens* and *D. bugnioni*; bright

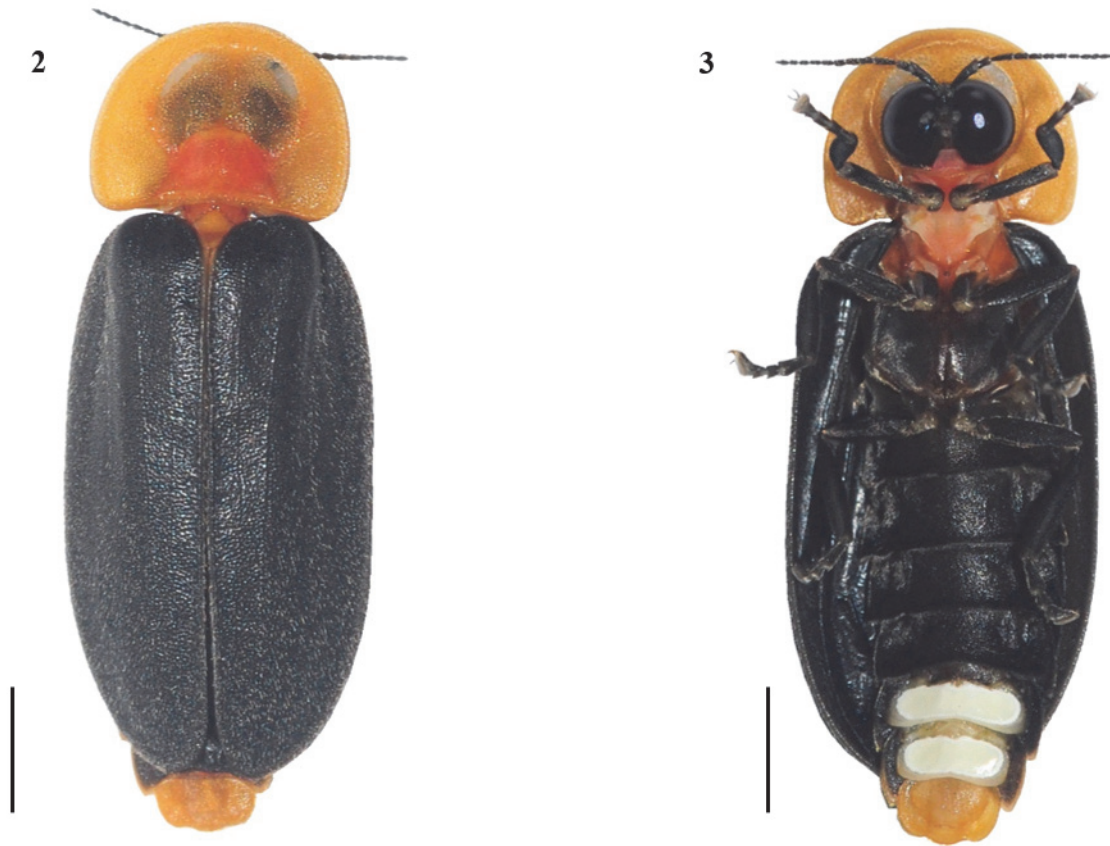


Fig. 2-3. *Diaphanes olivieri* (male). 2. dorsal, 3. ventral (scale bar = 1 mm)

orange pronotum and translucent pronotal disc; vivid orange prosternum, mesosternum, and hypomera (Figs. 2, 3); V2-5 black, V6, V7 each with a transverse (strip-like) and milky white LO; V8 orange; T2-7 black; T8 orange (Figs. 14, 15).

Female- 23.5-24.0 mm long; apterous form; brownish pink body; larger than male; obscure areolet area; pronotum laterally expanded rather than having semi-elliptic shape; distinguish from *D. lutescens* by the absence of elytral buds and without having a semi-elliptic pronotum; no pink markings on thoracic terga, and sterna; pink posterior margins in abdominal segments; LO in V6 is a transverse (strip-like), and V7 with a pair of rectangle-shaped LO, whereas *D. lutescens* has a pair of spot-like LO in V7; pygidium weakly bisinuate, while *D. lutescens* has a trisinuate pygidium (Figs. 22, 23).

Description - Male (Figs 2-21)

General morphology - Body (Figs. 2, 3) elongate,

16.5-17.0 mm long, 7.5-8.0 mm wide, depressed dorsally, dorsal, and ventral black except the vivid orange pronotum and terminal abdomen.

Head (Fig. 9): black, completely retracted within a pronotal cavity, and the hypomera open anteriorly, eyes large, interspace between eyes almost uniformly wide from frons to ventral surface, about 0.23-0.27 times as wide as head width. **Mouthparts** well developed, apical labial palpomere laterally flattened with dentate inner margin (2-3 teeth); maxillary palpi long, clypeus and labrum fused, mandibles a little longer than clypeus and labrum; eyes large, about 0.40-0.44 times as wide as pronotal width. **Antenna** (Fig. 10) 4.0-4.5 mm long, relatively short, moniliform, 11-segmented. **Pronotum** (Figs. 7, 8): 5.0-5.5 mm long, 6.0-6.5 mm wide, semi-elliptical shape, fine punctures on the surface, bright orange, distinct lateral expansions, medial semicircular transparent central disc, slightly broader than long, prosternum, mesosternum, and hypomera vivid orange. **Elytra** 12.0-12.5 mm long, 7.5-8 mm wide. (Figs. 4, 5) black, four interstitial lines and smooth

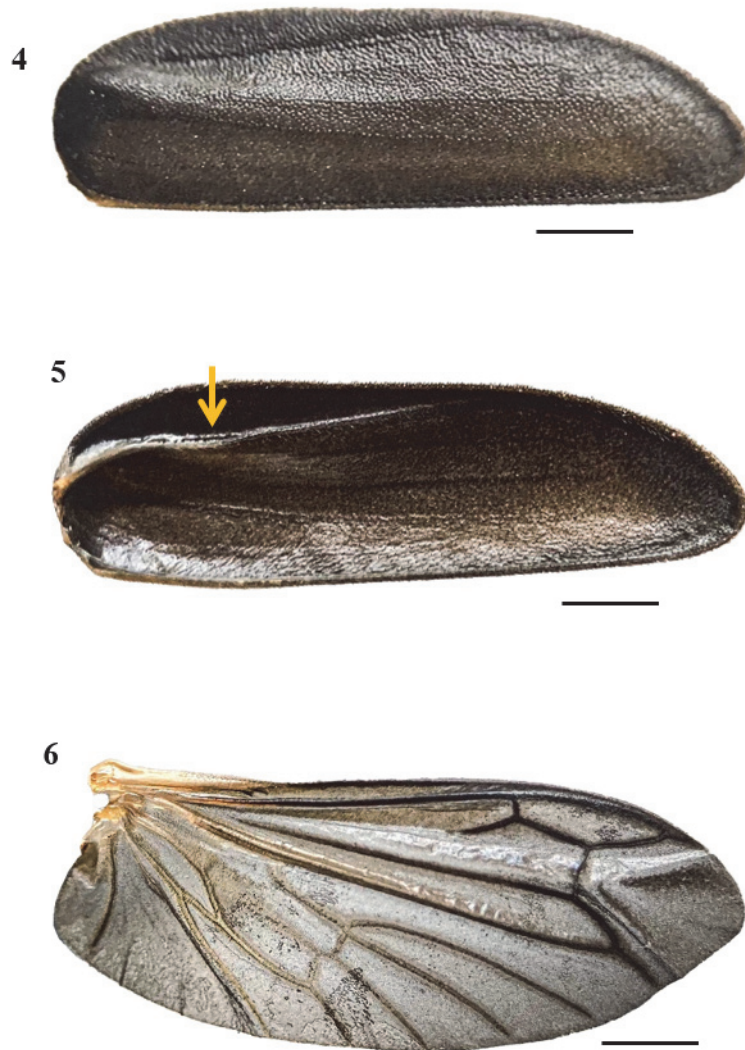


Fig. 4-6. *Diaphanes olivieri* (male). 4-5 elytron (right); 4. dorsal; 5. ventral (white inner lateral margin of elytral epipleuron arrowed); 6. hind wing (left) (scale bar = 1 mm)

surface, obscure punctures, inner lateral margin of elytral epipleuron narrowly white (arrowed in Fig. 5). **Hind wing** (Fig. 6): black and well developed, elongate, broadest in apical 2/3. posterior margin sinuose, 2× as long as wide, almost reaching anterior margin, costal row of setae inconspicuous; CuA2 cross vein absent, MP-Cu cross vein present. **Thorax** black ventrally and dorsally, legs long and slender, black femora to tarsi in pro, mid, and hind-legs (Figs. 11-13), two claws at the apex. **Abdomen** (Figs. 14-15) with seven ventrites, abdominal spiracles on the ventral side of abdomen; abdominal ventrites 2-5 black, V6, V7 with medial flattened transvers, milky white light organs (strip-like), V8 orange; LO in V6 wider than in that in V7; Pygidium trisinuate, with a

slightly longer middle lobe than lateral ones, apical margin of all lobes smooth and blunt; V8 emarginated, a slightly prolonged mid apical margin creates a posterior pointed pair of protections, T2-7 black, T8 orange.

Aedeagus (Figs. 16-18): trilobed structure, slightly asymmetrical, single ML and two LL, ML slender, broad at base, narrower in apical 1/3, and then dilated at the apex. ML wider than LLs at its apex but not at the base, ML flattened in a dorso-ventral plane (arrow Fig. 16), LL fused dorsally and enfolded to the ventral side, about 1.29 mm long, about 0.49 mm wide.

Aedeagal sheath (Figs. 19-21): enfolds the aedeagus, covers dorsal and lateral sides of male genitalia, slightly asymmetrical, the anterior sheath sternite wide with tergite articulation,

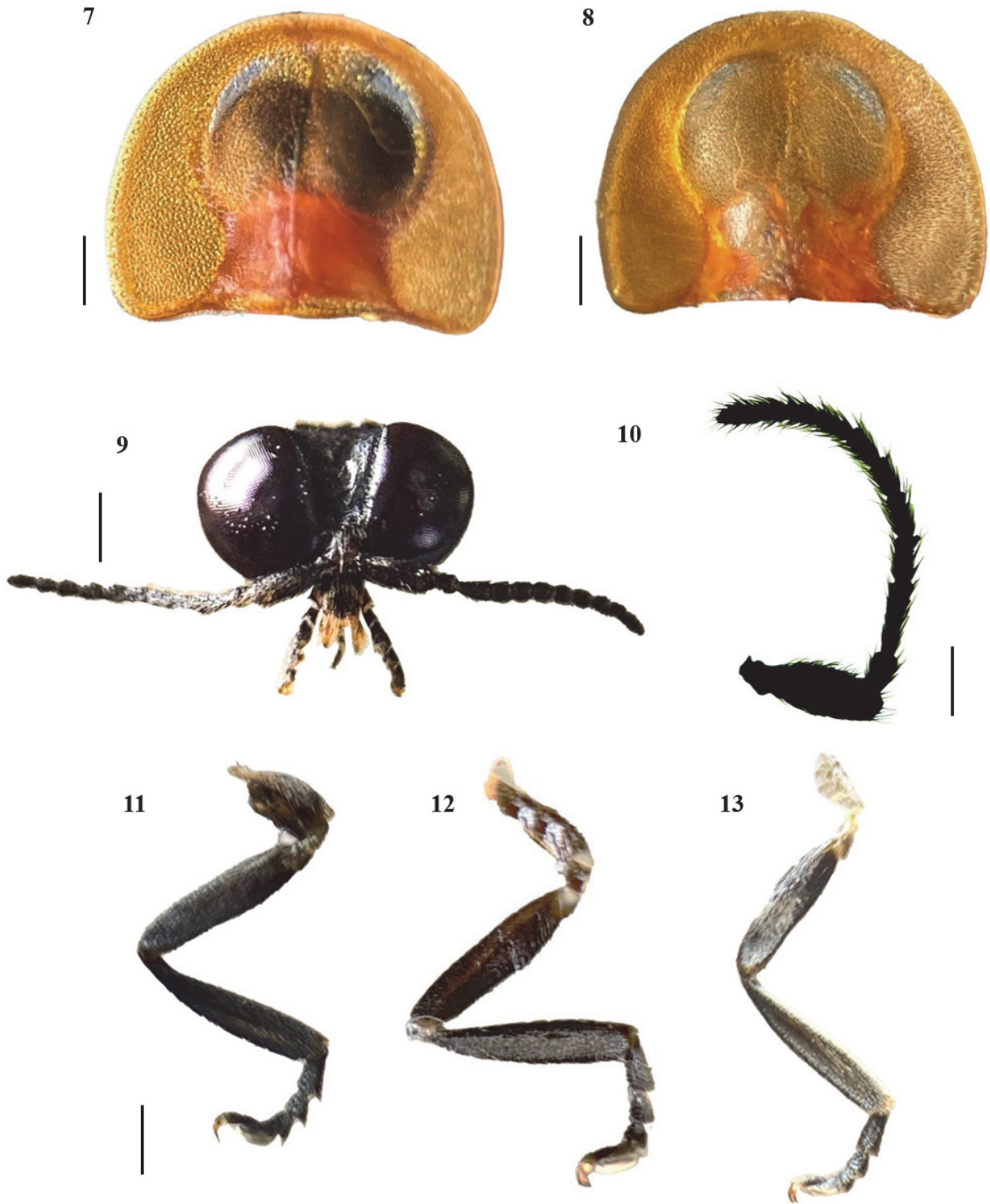


Fig. 7-13. *Diaphanes olivieri* (male). 7, 8 pronotum (7. dorsal, 8. ventral); 9. head (ventral); 10. antennae; 11, 12, 13. legs (11. fore, 12. mid, and 13. hind) (scale bar = 1 mm)

the apex of the sheath sternite hairy (arrow Fig. 19), anterior apex of the sternite pointed, about 1.25 mm long and about 0.35 mm wide.

Female (Figs 22, 23)

General morphology 23.5-24.0 mm long, 9.0-9.5 mm wide, apterous, incapable of flight; body (Figs. 22-23) elongate, no elytral rudiments. Coloration brownish pink; no pink markings on

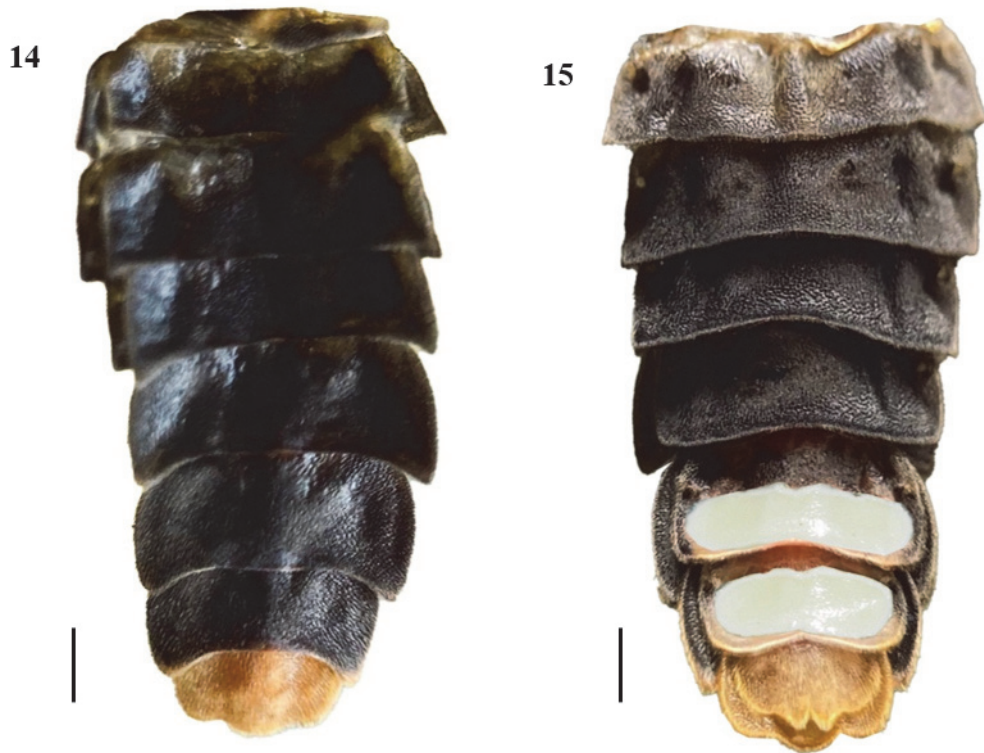


Fig. 14-15. *Diaphanes olivieri* (Male) abdomen. 14. dorsal, 15. ventral (scale bar = 1 mm)



Fig. 16-18. *Diaphanes olivieri* (male) aedeagus. 16. dorsal; 17. ventral; 18. right lateral (scale bar = 1 mm)

thoracic terga and sterna as described by Jeng *et al.* (2001), lateral margins of abdominal terga and pleurites brownish pink, body surface

granulate, larger than a male. **Head:** completely covered with pronotum dorsally, antenna: 3-3.5 mm long, moniliform and pinkish white, 11-



Fig. 19-21. *Diaphanes olivieri* (male) aedeagal sheath. 19. dorsal (arrow - hairs); 20. ventral; 21. right lateral (scale bar = 1 mm)

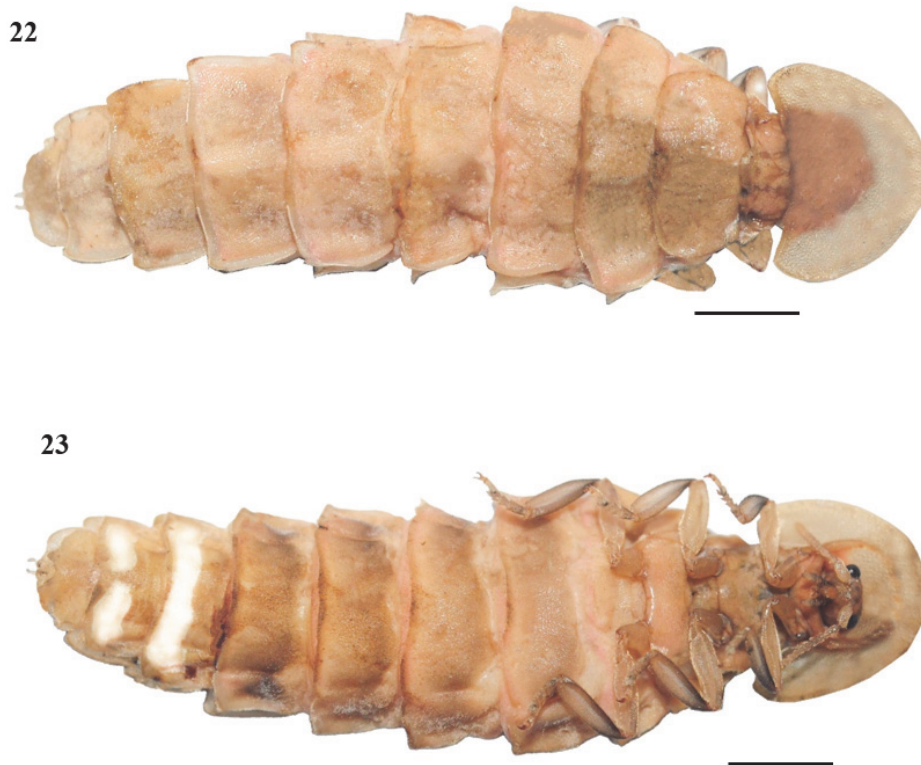


Fig. 22-23. *Diaphanes olivieri* (female). 22. dorsal; 23. ventral (scale bar = 1 mm)



Fig. 24. Mating of male and female, *Diaphanes olivieri*. Initial interactions, male above, female beneath (scale bar = 1 mm)

segmented, longer as pronotum, vertex depressed between eyes. **Pronotum:** laterally expanded rather than having a semi-elliptic shape, obscure areolet area, translucent with a convex central disc, apical and lateral margins elevated, surface coarsely granulate, median longitudinal carina weakly visible, **Thorax:** 2-3 mm long, broader than long; legs robust and slender, femora and tibia flat, tibia dark, femur and tarsi pinkish brown, claws are simple. **Abdomen:** eight segments, usually pink markings on the posterior margin of abdominal segments, first abdominal tergite distinctly broader than metanotum, weakly broadened towards T3, then gradually but insignificantly diminishing toward T8, each with lateroapical angles and rectangular, V7 roundly emarginated apically, LO transverse and visible as one strip in V6, a pair of two-spot (rectangle-shaped) photogenic organs in V7, pair of spiracles on pleurites, and the last tergite (pygidium) weakly bisinuate.

Larvae: Not found during the present survey.

Habitat: Male *D. olivieri* was found in Rammale Forest, Walasmulla, Southern Sri Lanka, in the intermediate climatic zone. Specimens were gathered near a stream where the vegetation was dense. To our knowledge, the site is a natural ecosystem that has not been altered by

human activity. Females were also discovered in the same environment (Fig. 25).

Behavior: Males: Nocturnal, actively flying in the middle layer of vegetation strata (2.0 m), with greenish glow. **Female:** Nocturnal, found on the soil layer among leaf litter, emitting weak green light. A mating pair was found and photographed in the field (Fig. 24).

Discussion

In our work, we rediscovered male *D. olivieri* from the forest (Rammale), which has an intermediate climate in southern Sri Lanka. For the first time, the apterous female of *D. olivieri* was observed in the same habitat as males, and their mating behavior in their natural habitat was recorded.

We did not examine the syntypes from India, where they were originally described, but the collected specimens were compared with the four paralectotype males deposited at NMCSL to confirm identifications.

Male *D. olivieri* has black body coloration on the dorsum and venter, except the vivid orange pronotum and terminal abdomen. Notably, Sri Lankan *D. lutescens* has a light brown dorsum and terminal abdomen with black ventrites (Wijekoon and Wegiriya, 2021). The elytron coloration of *D. olivieri* resembles that of *D.*



Fig. 25. Habitat of *Diaphanes olivieri* (vegetation at margins of freshwater stream).

formosus Olivier (1910), having black elytra but a pale yellow pronotum, which differs from *D. olivieri*. The distinguished characteristics of female *D. olivieri*, like the obscure pronotal areolet area, instead having a semi-elliptical pronotum, without pink markings on the thoracic terga, and sterna, having transverse LO in V6, and having a weakly bisinuate pygidium are dissimilar to the common female *Diaphanes* characters described by Jeng *et al.* (2001). Furthermore, Jeng *et al.* (2001) characterized female *Diaphanes* with moniliform or filiform antennas, which usually have rudimentary elytra. Though female *D. olivieri* has a moniliform antenna, it has no visible elytral buds. Nevertheless, female *D. lutescens* has distinct elytral buds, a clear semi-elliptic pronotum, and a whitish brown body (Wijekoon and Wegiriya, 2021), which coincide with Jeng *et al.* (2001). Olivier (1910) and Jeng *et al.* (2001) described female body coloration as milky white or brownish yellow, but female *D. olivieri* has an identical brownish pink body.

The morphology, habitat, and behavior of male *D. olivieri* are described here for the first time since the species' brief original description in 1895 and the rerecord almost 128 years later. Additionally, the morphology and habitat of *D. olivieri* females from Sri Lanka are described for

the first time. Study data is essential for bridging the gap left by the fascinating lack of taxonomic literature on Sri Lanka's firefly fauna and for advancing the understanding of the diversity of fireflies there.

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References

- Ballantyne A, Lambkin C.** 2009. Systematics of Indo-Pacific fireflies with a redefinition of Australasian *Atyphella* Olliff, Madagascan *PhoturoLuciola* Pic, and description of seven new genera from the Luciolinae (Coleoptera: Lampyridae). *Zootaxa* 1997: 1-188. doi ; 10.11646/zootaxa.1997.1.1
- Ballantyne LA, Lambkin CL, Ho JZ, Jusoh WFA, Nada B, Nak-Eiam S, Thancharoen A, Wattanachaiyingcharoen W, Yiu, V.** 2019. The Luciolinae of SE Asia and the Australopacific region: a revisionary checklist (Coleoptera: Lampyridae) including

- description of three new genera and 13 new species. *Zootaxa* 4687: 1-174. doi: 10.11646/zootaxa.4687.1.1
- Gorham HS.** 1880. Materials for a revision of the Lampyridae. *Trans Entomol Soc London* 1880: 83-112.
- Gorham HS.** 1895. List of the Coleoptera in the collection of H. E. Andrewes Esq. from India and Burma, with descriptions of new species and notes. *Ann Entomol Soc Belgium* 39: 293-307.
- Ho JZ.** 1997. *The Lantern in the Dark - Firefly. Taiwan Endemic Species Research and Conservation Center, Nantou*, 131 p. (in Chinese)
- Jeng ML, Lai J, Yang PS.** 1999. On the validity of the generic name *Pyrocoelia* Gorham (Coleoptera, Lampyridae, Lampyrinae), with a review of Taiwanese species. *Japanese J Syst Entomol* 5: 347-362.
- Jeng ML, Lai J, Yang PS.** 2001. Revision of the genus *Diaphanes* Motschulsky (Coleoptera, Lampyridae, Lampyrinae) of Taiwan. *Japanese J Syst Entomol* 7: 203-235.
- Jeng ML, Lai J, Yang PS.** 2003. Lampyridae: a synopsis of aquatic fireflies with description of a new species (Coleoptera). pp. 539-562. In: Jäch, MA, Ji L. (eds.) *Water Beetles of China Vol. 3. Zoological-Botanical Society in Austria and Weiner Coleopterologists' Association, Wien*.
- Jeng ML, Lai J, Yang PS, Mastaka S.** 2000. Notes on taxonomy of *Lamprigera yunna* (Fairmaire) and the genus - *Lamprigera* (Motschulsky) (Coleoptera, Lampyridae). *Japanese J Syst Entomol* 6: 313-319.
- Li XY, Liang XC.** 2007. A new species of the genus *Diaphanes* Motschulsky (Coleoptera: Lampyridae) from Gaoligong Mountains of Yunnan, Southwest China. *Zootaxa* 1533: 53-61. doi: 10.11646/zootaxa.1533.1.3
- Martin GJ, Stanger-Hall KF, Branham MA, Da Silveira LFL, Lower SE, Hall DW, Li XY, Lemmon AR, Lemmon EM, Bybee SM.** 2019. Higher-level phylogeny and reclassification of Lampyridae (Coleoptera: Elateroidea). *Insect Syst Divers* 3: 11; 1-15. doi: 10.1093/isd/ixz024
- McDermott FA.** 1964. The taxonomy of the Lampyridae (Coleoptera). *Trans Am Entomol Soc* 90: 1-72.
- McDermott FA.** 1966. Lampyridae. In: Steel WO. (ed.) *Catalog Supplements of Coleoptera. Part 9. Second Edition. W. Junk, S'Gravenhage*, pp. 1-149.
- Motschulsky V.** 1853. Lampyrides. *Etud Ent* pp. 1: 25-58. doi: 10.5962/bhl.title.124602
- Olivier E.** 1885. Catalog of Lampyrids part of the collections of the Civic Museum of Genoa. *Annals of the Civic Museum of Natural History, 2a* 2: 333-374.
- Olivier E.** 1907. Coleoptera. Fam. Lampyridae. In: Wytzman P (eds.), *Kinds of Insects, (53). Verteneuil and Desmet, Brussels*. pp. 1-74.
- Olivier E.** 1910. Lampyridae. In: Schenkling S. (ed.), *Catalog of Beetles, (9). W. Junk, Burlin*. pp. 1-38. doi: 10.1007/978-94-011-9697-0_1
- Olivier, E.** 1911. Revision of the Lampyrids. *Scientific Review of Bourbonnais and central France* 24: 24-27 + 39-58+ 63-85 + 98-112.
- Rafinesque CS.** 1815. *Analysis of Nature or Table of the Universe and Organized Bodies*. [Book]. pp 1-224, (self-published) Palermo. available online at <http://gallica.bnf.fr/ark:/12148/bpt6k98061z.r=rafinesque.langEN>
- Walker F.** 1858. XXX. Characters of some apparently undescribed Ceylon Insects. *Annals and Mag Natural Hist* 3, 2: 280-286. doi: 10.1080/00222935808697026
- Wijekoon MC, Wegiriya HC.** 2021. Systematics and biology of male, female and larvae of *Diaphanes lutescens* (walker) (Coleoptera: Lampyridae: Lampyrinae) in Sri Lanka. *J Insect Biodivers Syst* 7: 423-436. doi: 10.52547/jibs.7.4.423
- Wijekoon WMCD, Wegiriya HCE, Bogahawatte CNL.** 2016. Systematic revision of the repository collection of Canthoroidea in the Department of National Museums, Colombo, Sri Lanka (Coleoptera: Cantharidae, Lampyridae, Lycidae, Rhagophthalmidae). *Ceylon J Sci* 45: 67-74. doi: 10.4038/cjs.v45i1.7365
- Wijekoon WMCD, Wegiriya HCE, Bogahawatte CNL.** 2021. Distribution, diversity and relative abundance of fireflies (Coleoptera: Lampyridae) in three habitat types in Sri Lanka. *Rajarata University Journal* 6: 10-20.

奧氏短角窗螢 *Diaphanes olivieri* Gorham 1895 (鞘翅目：螢科：螢亞科) 在斯里蘭卡的再發現和首次雌性紀錄

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摘 要

在原始描述發表 128 年後，2023 年我們在斯里蘭卡南部的拉馬勒 (Rammale) 森林保護區再度發現奧氏短角窗螢 (*Diaphanes olivieri* Gorham) 的族群。該地位於年雨量 1750-2500 mm 的中間氣候區，棲地為靠近溪流的森林。我們根據採集到的標本重新描述了雄蟲，也首度發現並描述其無翅雌蟲，同時記述其交配行為及棲息地。

關鍵詞：螢亞科、拉馬勒森林保護區、再發現、無翅雌性、斯里蘭卡