

Microgomphus souteri Fraser, a new addition to the Odonata (Insecta) fauna of Kerala, southern India

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The Odonata fauna of Kerala comprises 138 species, representing 80 genera and 12 families (Emiliyamma & Radhakrishnan 2006; Emiliyamma et al. 2007). The present report adds an additional record from Kerala.

During a faunistic survey tour conducted on 6 June 2010 in the Aralam Wildlife Sanctuary (between 11°53'1"–11°59'14"N and 75°47'29"–75°55'58"E), located in the Brahmagiri slopes of the northern Western Ghats in the Kannur District of Kerala, we collected a specimen of *Microgomphus souteri* Fraser, 1924 at Valayamchal. The specimen was collected at around 0200hr below a tube light. The weather was rainy and windy all through the day and night and the surroundings were thoroughly drenched. It is conjectured that the weather conditions might have prompted the species to come to the light at night.



The genus *Microgomphus* belongs to the family Gomphidae. Its members are among the smallest species in the family, and are coloured black marked with greenish-yellow. The genus *Microgomphus* is defined by the following characters: Discoidal cell of forewing and hindwing different in shape, that of forewing shorter than in hindwing; incomplete basal antenodal nervure absent; superior anal appendages with an inner branch, inferior appendages slightly notched at the tips (Image 1), further they have more than two transverse nervures between the sectors of the arc, from arc to bifurcation of Rs (Radial Sector) in fore and in hindwing.

They are distributed in the humid parts of the Western Ghats and the northeastern part of India at an elevation of 609.5m and above. Other species of the genus are distributed in Myanmar, Malaysia, Sumatra, Singapore, Sri Lanka, Cambodia, Laos, Vietnam, Borneo and Africa. Species of the genus are arboreal by nature, but occasionally the males descend and settle on rocks in midstream; they do not wander far from their parent streams, and may be found settled on vegetation, usually beside the water. The larvae breed in deep pools in lowland and submontane streams flowing through heavy primary rainforest (Fraser 1934). The genus *Microgomphus* is represented in India by four species: *M. chelifera* Selys, 1858, *M.*

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Image 1. Male anal appendages of *Microgomphus souteri*

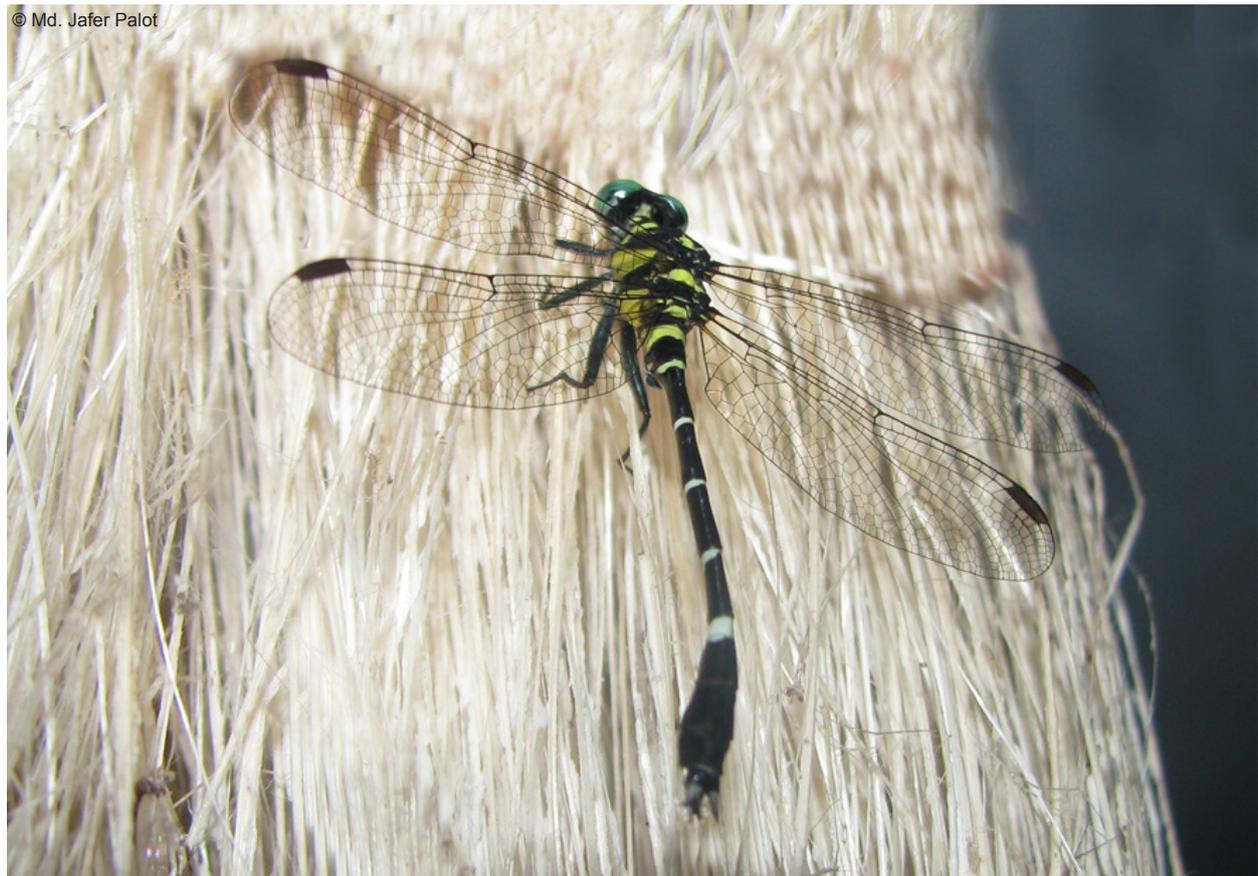


Image 2. Adult male *Microgomphus souteri* at Aralam Wildlife Sanctuary

souteri Fraser, 1924, *M. torquatus* (Selys, 1854) and *M. verticalis* (Selys, 1873) (Subramanian 2009). Of these, only *M. souteri* is endemic to the Western Ghats (Prasad & Varshney 1995).

The characters of the specimen collected tally (though with some minor variations) with that of *M. souteri* (Fraser 1924). The genus *Microgomphus* and the species *M. souteri* Fraser is reported here for the first time from Kerala. The morphometric details of the specimen are given below with their diagnostic characters.

Microgomphus souteri Fraser

(Image 2)

Material examined: 06.vi.2010, 1 male, Aralam Wildlife Sanctuary, Kannur District, Kerala, India, coll. Muhamed Jafer Palot, Registration No. ZSI/WGRC/IR-INV-2240.

Measurements: Total length - 40mm; Abdomen - 28mm; Forewing - 25mm; Hindwing - 23mm.

Diagnostic characters: Antehumeral stripes on

thorax not confluent with mesothoracic collar; vertex without marking; labrum black, marked with two large triangular greenish spots; abdominal segments 4 and 5 without mid dorsal oval yellow spots; 8 to 10 without yellow markings.

However, we have observed minor variations from the description: anterior collar of prothorax black, two large yellow spots on either side; antehumeral stripe broad, short; mesepimeron and metepimeron yellow, separated by a thin black stripe at the posterolateral suture; undersurface of all coxae and thorax yellowish with white pruinescence; wings with pale yellow at the subcostal and cubital spaces extended up to one cell length; marking on abdominal segments similar, but apicolateral spot absent on segment 2; markings on segment 6 bilobed and on 7th segment not overlapping the transverse suture.

Fraser (1924) described *Microgomphus torquatus souteri* based on a specimen collected from Coorg, Karnataka. According to Fraser (1934), the species is confined to Coorg and South Kanara and breeds in

Sampaji and Hallery Rivers and the Kibribetta stream, 609–1067 m, Coorg. The present collection locality of the species from Kerala is however, only about 40–50 km south of the type locality of the species. With the present discovery, a total of 139 species of dragonflies and damselflies (Odonata) representing 81 genera are now known to occur in Kerala. The specimen studied is deposited in the faunal depository of the Western Ghat Regional Centre, Zoological Survey of India, Kozhikode, Kerala.

Distribution: India: Kodagu, Dakshina Kannada (Karnataka) and Kannur (Kerala) - present report.

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