

Three new species of the *Culicoides ornatus* group (Diptera: Ceratopogonidae) from India

[Drei neue Arten der *Culicoides ornatus*-Gruppe
(Diptera: Ceratopogonidae) aus Indien]

by

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Abstract

The species group of *Culicoides ornatus* TAYLOR as defined by WIRTH and HUBERT comprises 30 species worldwide including 21 from Southeast Asian countries. This group is shown here to occur in India with 3 species that are described as new to science: *Culicoides aequalispinus* spec. nov., *C. fuscitibialis* spec. nov. and *C. pateli* spec. nov. A key to these Indian species of the *C. ornatus* group is provided.

Key words

Ceratopogonidae, *Culicoides*, *C. ornatus* group, Oriental Region, India, new species, identification key

Zusammenfassung

Die von WIRTH und HUBERT definierte Artengruppe von *Culicoides ornatus* TAYLOR umfasst weltweit 30 Arten, darunter 21 aus südostasiatischen Ländern. Hier wird gezeigt, dass diese Gruppe mit 3 Arten in Indien vorkommt, die neu beschrieben werden: *Culicoides aequalispinus* spec. nov., *C. fuscitibialis* spec. nov. und *C. pateli* spec. nov. Eine Bestimmungstabelle für diese indischen Arten der *C. ornatus*-Gruppe wird zur Verfügung gestellt.

Key words

Ceratopogonidae, *Culicoides*, *C. ornatus*-Gruppe, orientalische Region, Indien, neue Arten, Bestimmungstabelle

Introduction

Biting midges females feed on warm-blooded vertebrates and may be a nuisance to humans who are often in the field like campers, fishermen, hunters, hikers, gardeners and others who spend time outdoors during dawn and dusk and even during daytime when it is still and cloudy. They readily bite humans causing irritating, painful, and, in some cases, long-lasting, lesions. During present investigation of *Culicoides* LATREILLE, a few adults were identified as three undescribed species belonging to the *C. ornatus* group of the genus, rather than as in any of the subgenera due to sharing of species group characters. The *C. ornatus* group was established by WIRTH and HUBERT (1989) to accommodate 21 widely distributed species in the Oriental and Australasian regions, breeding most commonly in coastal marshes. The group can be diagnosed by the following combination of characters: eyes bare or rarely setose, contiguous to moderately separated; usually flagellomeres 1–12 with SCo that may be present on the distal-most flagellomere, sometimes absent on flagellomere 9 or 10, the penultimate one with 4–5 sensilla forming a distal ring; mandible with 9–18 teeth. The mesonotum usually brownish without a prominent pattern; legs brownish, usually without band and rarely with distal band on femur, tibiae with sub-basal tibial band, hind tibial comb with 4 (rarely 5) spines, that nearest to the spur being the longest, fourth tarsomeres usually cylindrical; wing brownish, usually with pale spot at distal end, 2nd radial cell moderately long, usually dark at tip but may be pale distally, cell r_3 usually with large distal pale area often filling apex of the cell; pale straddling on veins M_1 and M_2 absent, no pale spot in front of Cu fork; macrotrichia moderately dense and long on distal half of wing; halteres frequently infusate. Spermathecae large, different shapes, sclerotized, one vestigial, sclerotized ring present or absent. Tergum IX