

A CONTRIBUTION TO OUR KNOWLEDGE OF HIGH ALTITUDE
SYRPHIDAE (CYCLORRHAPHA : DIPTERA) FROM N. W. HIMALAYA

PART II—SUBFAMILY ERISTALINAE¹

J. L. NAYAR

Senior Research Fellow, C.S.I.R., Ministry of Education,
School of Entomology, St. John's College, Agra.



Ent-S

INTRODUCTION

This paper contains the report on part of the Syrphid collections made from N. W. Himalaya and constitutes the second in series on this small but interesting collection. The first paper² contains the description of five species new to science and record of fifteen species belonging to subfamily Syrphinae. In this report are included descriptions of two new species and records of four species.

I am grateful to Dr. T. Singh, Professor of Zoology and Entomology, School of Entomology, St. John's College, Agra, for facilities for work and encouragement. I am also thankful to Dr. Santokh Singh, Leader of Fourth Entomological Expedition to N. W. Himalaya, for placing the small but interesting collection of insects at my disposal. My thanks are due to C.S.I.R. for the award of Senior Research Fellowship that enabled me to pay full time attention to this work.

The type specimens of new species, retained temporarily in the School of Entomology collections, will be deposited in the National Zoological Collections in the Zoological Survey of India, Calcutta.

ERISTALIS LUNAR, sp. nov.

♂ *Head*. Eyes dark-bronze with brownish, dense pubescence, contiguous for about one-fourth of the distance from vertex to the antennae; ocellar triangle black with brown, soft bristles; ocelli dark with a pinkish tinge. Frons above antennae black, setaceous; face below antennae dull black with yellow tomentum; extreme anterior margin of the frons black, bare. Antennae dark-brown; first and second segments black; third antennal segment brown, oval, about as long as wide, basal half dark-brown; arista dark-brown, plumose for two-thirds of its length, terminal part bare. Occiput black with brownish-yellow tomentum dorsally.

Thorax. Black with three approximately equal, longitudinal stripes; dorsum with yellow tomentum; pleurae dull black with brownish-yellow, dense

¹ Contribution No. 111 from the School of Entomology, St. John's College, Agra.

² Nayar, J. L. A contribution to our knowledge of high altitude Syrphidae (Cyclorhapha: Diptera) from N. W. Himalaya, Part I.—Subfamily Syrphinae. *Agra Uni. J. Res. (Sci.)*, XVI (II): 121-132, May 1967.

pile; scutellum concolourous with the mesoscutum at the base, blackish yellow medially, yellowish marginally, tomentum yellow mixed with black hairs dorsally; marginal, soft, golden yellow pubescence.

Legs. Blackish-brown with yellow pile; under surface of the tibiae brownish, claws black.

Wings. Hyaline; brownish tinge extending from the wing base to about half its length; stigma dusted deep brown; two-thirds of the subcostal cell brown; squamae brownish with brown fringe; halteres small, stalk and knob yellow.

Abdomen. (Fig. 2) Abdomen black; first segment with long yellow pubescence; second segment with a pair of triangular yellow spots, extending to the margins with brownish-yellow tomentum; third segment with inverted crescentric, yellow mark on the anterior two-thirds and with brownish-yellow posterior margin; fourth segment with yellow pubescence and brown posterior border.

Length: Body 11.5 mm. Wing 8.00 mm.

Holotype. Male on pin. "India : Kalatop (7 miles from Dalhausie), 8,000 ft., 25.ix.1962, coll. J. L. Nayar."

The species comes near to *Eristalis intricarioides* Brun. from Sikkim, but can be easily separated by the dark-brown pubescence of the abdomen; presence of triangular yellow spots on the second segment; an inverted, crescentric yellow marking on the third segment and other differences of pubescence on the eyes and the thorax.

ERISTALIS SANTOSHI, sp. nov.

♂ *Head.* Eyes dark-brown, pubescent with five wide, irregularly outlined but almost parallel, longitudinal brown stripes, and contiguous for about one-third of the distance from vertex to the base of the antennae. Ocellar triangle aeneous with brown tomentum; ocelli raised up, shining dark-brown. Frons above antennae black with dense, black tomentum; face below antennae blackish-grey with greyish-white, long, pubescence; central bump moderately produced, shining black and bare. Antennae blackish-brown; third antennal segment a little longer than wide; inner side of the upper surface of the flagellum brown, outer distinctly dark, arista dark-brown, bare. Occiput blackish-grey with brownish tomentum.

Thorax. Blackish dull-yellow with concolourous pubescence; dorsum with four longitudinal black stripes, the outer ones being more shining black and pointed terminally; the middle ones dull black, not attaining the posterior level of the lateral ones and obtusely pointed posteriorly. Scutellum concolourous with the scutum for about one-third its length, posteriorly with dark yellow pubescence.

Legs. Greyish, tibiae brownish yellow anteriorly, pubescence greyish-yellow.

Wings. Hyaline; stigma dusted pale-brown; squamae brown with concolourous fringe; halteres distinct, stalk and knob brown.

Abdomen. (Fig. 1) Black, pubescence pale whitish; first segment with moderately long brown spots on the postero-lateral margins; second segment with elongated lobe-like brownish-yellow spots narrowing inwardly, not meeting each other in the middle of the segment; third segment black, with an indistinct greyish band across the middle of the tergum; fourth segment with a distinct greyish band; fifth segment greyish-black with long marginal, black tomentum.

Length. Body 10.25 mm. Wing 8.87 mm.

Holotype. Male on pin. "India : Kalatop (7 miles from Dalhausie), 8,000 ft., 25.ix.1962, coll. Santosh K. Tandon."

The species comes near to *Eristalis quinquelineatus orientalis* Brun. from India : Simla and Nainital, but can be easily separated by the five longitudinal stripes on the eyes, brownish markings on the first and second segments and grey bands on the third and fourth abdominal segments.

ERISTALIS ALBIBASIS Bigot

1880. *Eristalis albibasis*, Bigot, *Ann. Soc. Ent.*, France, (5) x, p. 215.

1923. *Eristalis albibasis*, Brunetti, *F. Brit. Ind.*, 3:169.

To this I refer a female labelled "India : Jindari Ghat (Dalhausie), 6,700 ft., 23.ix.1962, coll. (Miss) N. Sethi."

This species differs from the published description in the stigma being distinct, brownish-yellow and the halteres pale-yellow. To the inadequate description of the abdomen reported earlier, the following addition is made.

Abdomen. Black with thick, golden yellow pile marginally and with long, white tomentum on the dorsum of the first abdominal segment, a pair of elongated brown spots, rounded at the tips, on the anterior half of the second segment; third and fourth segments with posterior margins brownish and with a prominent, transverse row of median whitish setae and fifth segment semicircular, with long, soft, white marginal pubescence,

This species is recorded from Simla only. The present report extends its distribution to N. W. Himalaya.

ERISTALIS HIMALAYENSIS Brunetti

1880. *Eristalis ursinum*, Bigot (nec Jaennicke), *Ann. Soc. Ent.*, France, (5) x, p. 215.

1908. *Eristalis himalayensis*, nom. nov., Brunetti, *Rec. Ind. Mus.*, ii, p. 70.

1923. *Eristalis himalayensis*, Brunetti, *F. Brit. Ind.*, 3 : 168.

To this I refer series of ♂ ♂ labelled "India : Kalatop (7 miles from Dalhausie), 8,000 ft., 25.ix.1962, coll. J. L. Nayar; series of ♀ ♀, Khuninala half a mile down the Rohtang Pass towards Mahri, 13,000 ft. on the Southern slope of Pir Panjal Range, coll. Santokh Singh and J. L. Nayar".

The only difference from the earlier description of the species is the dark-brown knob of the haltere.

The species is recorded from Darjiling, Nainital, Simla, Talpani, Sikkim, Java and Chitlong (Nepal). The present record extends its distribution to North West Himalaya.

ERISTALIS TAPHICUS Wiedemann

1830. *Eristalis taphicus*, Wiedemann, *Auss. Zweifl.*, 2 : 191.
 1849. *Eristalis ridens*, Walker, *List Dipt. Brit. Mus.*, 3 : 610.
 1923. *Eristalis taphicus*, Brunetti, *F. Brit. Ind.*, 3 : 162.

I have a ♂ before me labelled "India : Kalatop, 8,000 ft. coll. J. L. Nayar."

The ♂ specimen differs from the published description in the scutellar pubescence being shining light brown; stigma dark-brown and basal half of the subcostal cell also dark-brown.

This widely distributed species is reported from Lucknow, Baroda, Allahabad, Delhi, Bombay; Karachi (Pakistan); Baluchistan; China and Korea; South France; Monaco; Cyprus and Egypt. No information is available regarding its distribution in the elevated parts of N. W. Himalaya and the present record extends its altitudinal distribution.

ERISTALIS QUINQUELINEATUS var. ORIENTALIS Brunetti

1781. *Syrphus quinquelineatus*, Fabricius, *Spac. Ins.*, 2 : 425.
 1805. *Syrphus quinquelineatus*, Fabricius, *Syst. Antliat.* p. 239.
 1830. *Eristalis quinquelineatus*, Wiedemann, *Auss. Zweifl.*, 2 : 185.
 1880. *Eristalomyia parva*, Bigot, *Ann. Soc. Ent.*, France, (5) x, p. 218.
 1908. *Eristalis quinquelineatus*, de Meijere, *Tijd. v. Ent.*, 51 : 245.
 1923. *Eristalis quinquelineatus* var. *orientalis*, Brunetti, *F. Brit. Ind.*, 3 : 183.

To this I refer a ♂ labelled "India; Kalatop-Lakkar Mandi bridal path, 8,000 ft., 25.ix.1962, coll. J. L. Nayar."

The specimen before me differs from the earlier description in the thorax with black, dull yellowish tinge and no dark brown spot at the tip of subcosta.

The species is recorded from Simla, Nainital, Sarsanie (Kumaon), Bijnor, Mysore, Ootacomund, Yercaund (South India). The present report extends its distribution to North West Himalaya.



0.5 mm.

FIG. 1

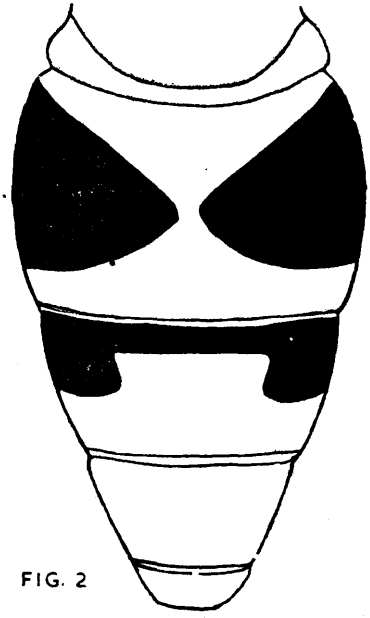


FIG. 2

Fig. 1. *Eristalis santoshi*, sp. nov. (Male Abdomen)
Fig. 2. *Eristalis lunar*, sp. nov. (Male Abdomen)