

A PRELIMINARY STUDY OF THE INSECT FAUNA OF MEGHALAYA

2. DIPTERA, SYRPHIDAE : ELEVEN NEW RECORDS AND NOTES ON OTHER SPECIES

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ABSTRACT

A list of all 59 species of syrphid flies so far known from Meghalaya along with notes on their distribution is provided. Eleven species, namely, *Baccha nigricosta* Burn., *Eristalis orientalis* Wied., *Eristalis quinquelineatus* Fabr., *Eristalis quinquestriatus* Fabr., *Paragus indicus* Brun., *Platychirus albiminus* Fabr., *Spherophoria indiana* Big., *Syrphus cinctellus* Zett., *Syrphus corollae* Fabr., *Syrphus griseocinctus* Brun., and *Xanthogramma citrinum* Brun., are recorded for the first time from the area.

INTRODUCTION

Syrphid flies are brightly coloured, striped or spotted insects found usually hovering around flowers on sunny days. It is specially interesting to note that these insects are often seen poised motionless in the air while vibrating their wings very rapidly. They are more common in high altitudes than in the plains and they form the most important family of the suborder Brachycera in the nival community. They have been noted in grassy meadows from c 3000 to 4500 m.

The adults feed on pollen and nectar of flowers and effect cross-pollination, whereas the larvae either feed on decomposing organic matter or depend exclusively on small hemipteran pests like aphids and coccids. Economically they are thus beneficial for their predacious role and as pollinator, but a few species may cause damage by boring wood, attacking onions and other bulbs or even as accidental intestinal myiasis in man.

Since the publication of Brunetti's (1923) work in the Fauna of British India series, a number of workers have contributed to the different aspects of the syrphid flies of India (Rattanlal and Gupta, 1953; Rattanlal and Haque, 1953; Joseph, 1967a, b; and Gokulpure, 1971). But Brunetti's still remains the sole source of our information regarding the syrphid fauna of Meghalaya.

The present study is based on syrphid collection present in the Eastern Regional Station, Zoological Survey of India, Shillong, which is comprised of 26 species of which 11 are new records from Meghalaya (marked*); the other 15 species

being marked with**. A complete list of all the species known from Meghalaya has been included in this paper along with notes on their distribution in the State. Collection data only for the newly recorded species and some remarks on other species present in our collection have also been added. So far 59 species belonging to all the seven known subfamilies of Syrphidae are known from Meghalaya.

SYSTEMATIC ACCOUNT

Family SYRPHIDAE Subfamily SYRPHINAE

Baccha amphithoe Walker. Khasi Hills: Cherrapunji.

***Baccha maculata* Walker. Garo Hills: Above Tura. Khasi Hills: Cherrapunji, Shillong.

Baccha plumbicincta Brunetti. Khasi Hills: Cherrapunji.

**Baccha nigricosta* Brunetti.

MATERIAL: 1 ♀; Umsining, Khasi Hills; coll. A. K. Ghosh; 19 Sep 1972.

Baccha nubilipennis Austen. Garo Hills: Above Tura. Khasi Hills: Cherrapunji, Shillong.

***Baccha pulchrifrons* Austen. Khasi Hills: Cherrapunji, Shillong.

***Didea fasciata* Macquart. Khasi Hills: Shillong.

REMARKS: Our specimen varies from the description given by Brunetti (*op.cit.*) in having the subcostal spot extended up to the recurved part of 3rd vein (*vs* up to subcostal cell), paired spot (*vs* band) on 3rd abdominal segment, and in the absence of any marking (*vs* pair of elongated triangles) on 4th abdominal segment.

Dideoides kempii Brunetti. Garo Hills: Above Tura. Khasi Hills.

Dideoides ovata Brunetti. Khasi Hills: Shillong.

Dideoides tigerina Bigot. Khasi Hills.

***Dideoides* sp. Khasi Hills: Shillong.

REMARKS: The specimen appears nearest to *D. annandalei* Brunetti in having bare eyes and predominance of yellow colour in abdomen, but differs in having much longer body (14 mm *vs* 8 mm). Due to lack of comparative material, the specimen has only been provisionally identified.

***Lasioticus seleniticus* Meigen. Khasi Hills: Shillong.

***Melanostoma orientale* Wiedemann. Khasi Hills: Shillong.

***Melanostoma univittatum* Wiedemann. Khasi Hills: Shillong.

**Paragus indicus* Brunetti.

MATERIAL: 1 ♂, 1 ♀; Shillong, Khasi Hills; coll. S. Biswas; Sep 1972.

**Platychirus albimanus* Fabricius.

MATERIAL: 1 ♀; Shillong, Khasi Hills; coll. S. Biswas; 29 May 1967.

*****Rhingia cincta*** de Meijere. Garo Hills: Above Tura. Khasi Hills: Shillong.

REMARK: The species, so far known only from the Garo Hills, has also been recorded from the Khasi Hills.

****Sphaerophoria indiana*** Bigot.

MATERIAL: 4 ♂, 1 ♀; Shillong, Khasi Hills; coll. S. Biswas; May 1967, Aug 1969.

REMARK: Specimens under study vary from Brunetti's (1923) description in the absence of greyish band on thorax.

Sphaerophoria javana Wiedemann. Garo Hills: Above Tura.

*****Syrphus balteatus*** De Geer. Khasi Hills: Shillong.

****Syrphus cinctellus*** Zetterstedt.

MATERIAL: 1 ♀; Shillong, Khasi Hills; coll. S. Biswas; 14 Jan 1968.

REMARK: The specimen under study varies from the description given by Brunetti (1923) in having straight black stripe on 3rd abdominal segment (vs emerginate).

*****Syrphus confrator*** Wiedemann. Khasi Hills: Dumpela to Cherrapunji, Shillong.

****Syrphus corollae*** Fabricius.

MATERIAL: 1 ♂, 4 ♀; Shillong, Khasi Hills; coll. S. Biswas; Aug, Sep 1969, Sep 1972.

REMARKS: It appears that this species is very close to *S. balteatus* De Geer, differing from it only in the absence of thoracic stripes. The pattern of abdominal bands seems to be extremely variable, and the body-length also varies as can be evidenced from the material at our disposal (maximum 11 mm).

****Syrphus griseocinctus*** Brunetti.

MATERIAL: 5 ♀; Shillong, Khasi Hills; coll. S. Biswas; Jan 1968.

REMARK: In our specimens the colour of arista varies from brown to black.

Syrphus serarius Wiedemann. Khasi Hills.

*****Syrphus*** sp. Khasi Hills: Nongpoh.

REMARKS: Although closely allied to *S. aqualis* Walker, the specimen under study differs in having characteristic black patch in the wing and shorter body length. Further material is needed for its specific identification.

****Xanthogramma citrinum*** Brunetti.

MATERIAL: 1 ♀; Shillong, Khasi Hills; coll. S. Biswas; 27 May 1967.

Subfamily VOLUCELLINAE

Graptomyza angustimarginata Brunetti. Garo Hills: Above Tura.

Graptomyza sexnotata Brunetti. Khasi Hills: Dibra.

*****Graptomyza ventralis*** var *nigripes* Brunetti. Garo Hills: Above Tura. Khasi Hills: Shillong.

REMARK: This species which has been known from the Garo Hills, is also recorded here from the Khasi Hills.

Volucella signata Brunetti. Garo Hills: Above Tura. Khasi Hills.

Volucella trifasciata Wiedemann. Khasi Hills.

Subfamily ERISTALINAE

Eristalis angustimarginalis Brunetti. Khasi Hills.

Eristalis leatus Wiedemann. Khasi Hills: Shillong.

Eristalis multifarius Walker. Khasi Hills.

**Eristalis orientalis* Wiedemann.

MATERIAL: 1 ♂; Shillong, Khasi Hills; coll. S. Biswas; 29 May 1967.

REMARK: The specimen under study varies from Brunetti's (1923) description in having clear (vs yellowish grey) wings and less dense pubescence in the head.

**Eristalis quinquelineatus* Fabricius.

MATERIAL: 3 ♂, 6 ♀; Shillong, Khasi Hills; coll. S. N. Prasad and S. Biswas; May, Jul 1967; May 1970.

**Eristalis quenquestriatus* Fabricius.

MATERIAL: 1 ♂; Umtham, Khasi Hills; coll. R. K. Varshney; 24 Nov 1967; 1 ♀; Shillong, Khasi Hills; coll. S. Biswas; 29 May 1967.

***Eristalis solitus* Walker. Khasi Hills: Shillong.

Eristalis suturalis Brunetti. Garo Hills: Above Tura, Khasi Hills.

***Eristalis tenax* Linnaeus. Khasi Hills: Laikot, Mawblang, Shillong.

Megaspis chrysopygus Wiedemann. Khasi Hills: Shillong.

***Megaspis sonatus* Fabricius. Garo Hills: Above Tura. Khasi Hills: Shillong.

Merodon varicolor Walker. Garo Hills: Above Tura.

Subfamily MILESINAE

Brachypalpus dives Brunetti. Khasi Hills.

Milesia balteata Kertész. Khasi Hills.

Milesia decora Brunetti. Khasi Hills.

Milesia ferruginosa Brunetti. Khasi Hills.

Milesia gigas Macquart. Khasi Hills.

Milesia variegata Brunetti. Khasi Hills.

Milesia verticallis Brunetti. Garo Hills: Above Tura.

Xylota penicillata Brunetti. Khasi Hills.

Subfamily CHRYSOTOXINAE

Chrysotoxum baphyrus Walker. Khasi Hills.

Chrysotoxum quadrifasciatum Brunetti. Khasi Hills.

Subfamily MICRODONTINAE

- Microdon annandalei* Brunetti. Khasi Hills.
Microdon apiformis Brunetti. Garo Hills: Above Tura.
Microdon carbonarius Brunetti. Garo Hills: Above Tura.
Microdon flavipes Brunetti. Garo Hills: Above Tura.
Microdon squamipennis Brunetti. Garo Hills: Tura.

Subfamily CERIINAE

- Ceria tredecipunctata* Brunetti. Khasi Hills.

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