



## FRUIT-FLIES (DIPTERA: TEPHRITIDAE) FROM NORTH-EAST INDIA

KAUSHIK KR. BHATTACHARYA, P. PARUI, DHRITI BANERJEE\*

Zoological Survey of India, Kolkata-700053.

\*E-mail : dhritibanerjee@gmail.com

### INTRODUCTION

**Northeast India** consists the present day Assam or Assam valley and rest of the contiguous - Arunachal Pradesh, Meghalaya, Mizoram, Nagaland and former princely states of Manipur and Tripura, state of Sikkim and parts of North Bengal (districts of Darjeeling, Jalpaiguri and Koch Bihar). The present paper based on old collections present in Zoological Survey of India records 6 species under 4 genera from North-East India.

Order DIPTERA

Family TEPHRITIDAE

Subfamily DACINAE

Tribe DACINI

Genus *Bactrocera* Macquart

1835. *Bactrocera* Macquart, *Hist. nat. Ins. Dipt.*, 2: 452,453. Type-species: *Bactrocera longicornis* Macquart.

Subgenus *Zeugodacus* Hendel

1927. *Zeugodacus* Hendel, in Lindner, *Fliegen palaearkt. Reg.*, 49: 26. Type-species: *Bactrocera caudatus* Fabricius

### Key to the species

1. Costal band interrupted and very thin, abdomen largely black.....*Bactrocera (Zeugodacus) scutellaris* (Bezzi). (Fig. a, Plate-1).
- Costal band distinct and largely enlarged at apex; abdomen largely yellow..... *Bactrocera (Zeugodacus) tau* (Walker) (Fig. b, Plate-1).

*Bactrocera (Zeugodacus) scutellaris* (Bezzi)

1913. *Bactrocera scutellaris* Bezzi, *Mem. Indian Mus.*, 3: 98. Type-loc: India: (Meghalaya: Shillong; West

Bengal: Suiliguri, Kurseong; Uttarakhand: Kumaon, Bhowali).

*Material examined*: 1 ♀, Dentam, West Sikkim dist., 18.x.1995, coll. S.C. Mitra.

*Distribution*: India: Sikkim, Arunachal Pradesh, Bihar, Himachal Pradesh, Karnataka, Meghalaya, Uttarakhand, West Bengal. *Elsewhere*: China, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand.

*Remarks*: This species is being reported for the first time from Sikkim.

Subgenus *Zeugodacus* Hendel

1927. *Zeugodacus* Hendel, in Lindner, *Fliegen palaearkt. Reg.*, 49: 26. Type-species, *Dacus caudatus* Fabricius.

*Bactrocera (Zeugodacus) tau* (Walker)

1849. *Dasyneura tau* Walker, *List Dipt. colln Br. Mus.*, 4: 1074. Type-Loc: Foochow, China.

*Material examined*: 1 ♀, Tuikual south, Aizawl dist., 31.iii.94, coll. A.K. Hazra; 1 ♀, Belonia, South Tripura dist., 25.iii.91, coll. G.K. Srivastava.

*Distribution*: India: Mizoram, Tripura, Andaman & Nicobar Islands, Arunachal Pradesh, Bihar, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Maharashtra, Meghalaya, Punjab, Sikkim, Tamil Nadu, Uttarakhand, West Bengal. *Elsewhere*: Bhutan, Myanmar, China, Taiwan, Laos, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Brunei, Indonesia.

*Remarks*: This species is being reported for the first time from Mizoram and Tripura.

## Subfamily TEPHRITINAE

## Tribe TEPHRELLINI

## Subtribe TEPHRELLINA

Genus *Oxyaciura* Hendel

1927. *Oxyaciura* Hendel, In Lindner (ed.) *Die Fliegen der Palaearktischen Region*, 5: 111. Type species, *Aciura tibialis* Robineau-Desvoidy.

*Oxyaciura xanthotricha* (Bezzi)

1913. *Aciura xanthotricha* Bezzi, *Mem. Indian Mus.*, 3: 151. Type-loc: India: Uttarakhand (Dhikata).

*Material examined*: 1 ♀, Singhat, Churachandpur dist., 18.xii.92, coll. R.S. Mridha; 1 ♂, 2 ♀, Pangian Village, Churachandpur dist., 17.xii.92, coll. R.S. Mridha; 1 ♀, Malsa, Moreh, Chandel dist., 25.xii.92, coll. R.S. Mridha; 2 ♀, Rangpo, East Sikkim dist., 12.x.95, coll. S.C. Mitra.

*Diagnosis*: The species has flat, white, occipital setae (bristles) and postocellar bristles and scapular hairs lacking, typical of Tephritinae, but lacks recumbent, gray white setae over mesonotum and the 6<sup>th</sup> abdominal segment of the female is distinctly shorter than the 5<sup>th</sup> as in Trypetinae; upper occipital setae are flat and white; with only 3 hyaline marks in hind margin of wing; basal segment of ovipositor approximately as long as remainder of abdomen; piercer slender, tapered to a long thin point, extended ovipositor. (Fig. c, Plate-1).

*Distribution*: India: Manipur, Sikkim, Himachal Pradesh, Meghalaya, Uttarakhand. *Elsewhere*: Indonesia, Myanmar, Sri Lanka, Thailand, Vietnam, China.

*Remarks*: This species is being reported for the first time from Manipur and Sikkim.

## Tribe TEPHRITINI

Genus *Campiglossa* Rondani

1870. *Campiglossa* Rondani, *Bull. Soc. Entomol. Ital.*, 2: 121. Type-species, *Tephritis irrorata* Fallen.

## Key to the species

1. Wing entirely dark brown with numerous dark brown spots along periphery, cell r4+5 with a hyaline spot at apex..... *Campiglossa cribellata* Bezzi. (Fig.d, Plate-2).

- Posterior region of wing more hyaline with few dark patches or spots, cell r4+5 with an apical hyaline spot.....*Campiglossa gemma* (Hering) (Fig.e, Plate-2).

*Campiglossa cribellata* Bezzi

1913. *Campiglossa cribellata* Bezzi, *Mem. Indian Mus.*, 3: 161. Type-loc: India (West Bengal: Kurseong).

*Material examined*: 4 ♀, Nongpoh, Ri-Bhoi dist., 22.xii.1978, coll. P.T. Cherian.

*Distribution*: India: Meghalaya, Bihar, Haryana, Himachal Pradesh, Sikkim, West Bengal. *Elsewhere*: Nepal.

*Remarks*: This species is being reported for the first time from Meghalaya.

*Campiglossa gemma* (Hering)

1939. *Paroxyna gemma* Hering, *Verh. VII Intern. Kongr. Entomol.*, 1: 183. Type-loc: India: Tamil Nadu (Kodaikanal).

*Material examined*: 6 ♀, 2 ♂, Far Pak, Blue Mountain, Chhimpuitui dist., 9.iv.1994, coll. A.K. Hazra.

*Distribution*: India: Mizoram, Jammu & Kashmir (Ladakh), Karnataka, Tamil Nadu. *Elsewhere*: Nil.

*Remarks*: This species is being reported for the first time from Mizoram and is endemic to India.

Genus *Dioxyina* Frey

1954. *Dioxyina* Frey, *Commentat. Biol. Soc. Sci. Fenn.* (1944), 8(10): 62. Type-species, *Trypeta sororcula* Wiedemann.

*Dioxyina sororcula* (Wiedemann)

1830. *Trypeta sororcula* Wiedemann, *Aussereurop. Zweifl. Insekt.*, 2: 509. Type-loc: Teneriffe, Canary Islands.

*Material examined*: 1 ♂, Far Pak, Blue Mountain, Chhimpuitui dist., 9.iv.1994, coll. A.K. Hazra; 1 ♀, Belonia, South Tripura dist., 25.iii.91, coll. G.K. Srivastava.

*Diagnosis*: Head longer than high, epistoma and sides of face protruded, proboscis slender, elongate, geniculate, two pairs of inferior and superior fronto-orbital bristles present, dorsocentral bristles situated distinctly in front of

a line between the anterior supraalars; subcostal cell of wing dark brown; base of ovipositor shining black, subequal in length to terga 4-6. (Fig. f, Plate-2).

*Distribution:* India: Mizoram, Tripura, Andhra Pradesh, Assam, Bihar, Chandigarh, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Punjab, Tamil Nadu, Uttar Pradesh, Uttarakhand, West Bengal. *Elsewhere:* Widespread over Tropics and subtropics of the world, Japan, Australia, S. Europe, Korea, Southern Canada to Chile. Belonia, South Tripura dist., 25.iii.91, coll. G.K. Srivastava.

*Diagnosis:* Head longer than high, epistoma and sides of face protruded, proboscis slender, elongate, geniculate, two pairs of inferior and superior fronto-orbital bristles present, dorsocentral bristles situated distinctly in front of a line between the anterior supraalars; subcostal cell of wing dark brown; base of ovipositor

shinning black, subequal in length to terga 4-6. (Fig. f, Plate-2).

*Distribution:* India: Mizoram, Tripura, Andhra Pradesh, Assam, Bihar, Chandigarh, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Punjab, Tamil Nadu, Uttar Pradesh, Uttarakhand, West Bengal. *Elsewhere:* Widespread over Tropics and subtropics of the world, Japan, Australia, S. Europe, Korea, Southern Canada to Chile.

*Remarks:* This species is being reported for the first time from Mizoram and Tripura.

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Plate -1



a. *Bactrocera (Zeugodacus) scutellaris* (Bezzi)



a. wing



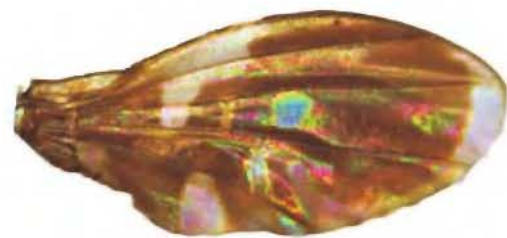
b. *Bactrocera (Zeugodacus) tau* (Walker)



b. wing



c. *Oxyaciura xanthotricha* (Bezzi)



c. wing

Plate - 2



d. *Campiglossa cribellata* Bezzi



d. wing



e. *Campiglossa gemma* (Hering)



e. wing



f. *Dioxyna sororcula* (Wiedemann)



f. wing