

A NEW *TEPHRELLA* (DIPTERA : TEPHRITIDAE) FROM MEGHALAYA, INDIA.

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ABSTRACT

A new species under the Genus *Tephrella*, *T. variegata* of the Dipterous Family Tephritidae is described and illustrated from Meghalaya, INDIA.

The following apparently undescribed species of *Tephrella* was reared from large galls formed by the flies on the stem of the plant *Inula cappa* (Dc) of the family Asteraceae.

***Tephrella variegata* n. sp.**

(Figs. 1-13)

This species is more allied to *heringi* Hardy from Bismark Islands than to *dicipiens* Bezzi from India and *sexincisa* Malloch from Solomon Islands, under this Genus. Like *heringi* this species has also got 4 pairs of inferior fronto-orbital bristles whereas *dicipiens* and *sexincisa* have 3 and 2 pairs respectively. As in *heringi* this species also possess 3 hyaline indentations in cell R_1 and cell 2nd M_2 for 2 in *dicipiens* and *sexincisa*. It differs from *heringi* by one pair of dorso central bristles (2 pairs in *heringi*), all leg segments yellow (coxae and femora yellow brown, tibiae and tarsi yellow in *heringi*., coxae dark, mid and posterior femora black, front

femora yellow but black on upper surface in *dicipiens*), cubital cell lobate (straight in *heringi*), piercer gently tapering towards apex (spear headed like in *heringi*), and proboscis black (yellow in *heringi* and *dicipiens*).

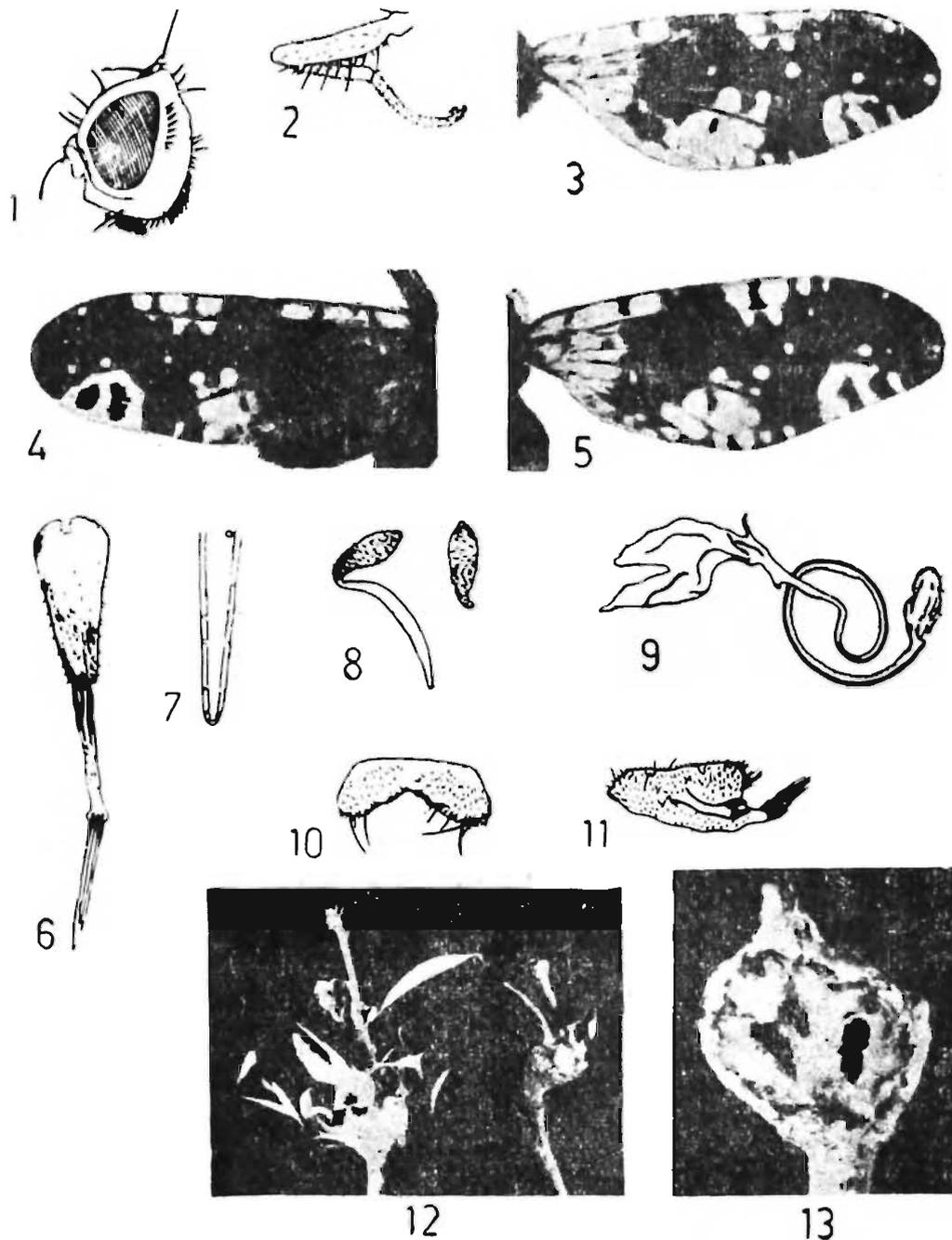
♀ Head (Fig. 1) : Approximately as long as high, the front gently sloping with antennae situated slightly above middle of head. Eyes dark, almost oval, occiput slightly swollen below. Face gently concave as seen in direct lateral view. Front rather broad, about as wide as long. Front with 4 pairs of inferior fronto orbital bristles. Ocellar bristles strong, about $1\frac{1}{2}$ times longer than lower superior fronto-orbitals. All the head bristles including genal except the post verticals and occipital row brownish. Post verticals, occipital row, all other head bristles and setae are yellow-white and scale like but sharply pointed at the apices. General colouration of head yellow with a tinge of brown on frons and rufous median portion of occiput. Antennae and palpi yellow, proboscis black. Third antennal segment short,

about 2 times longer than wide. Arista short pubescent at base, otherwise bare.

Thorax :—Largely black in ground colour tinged with yellow to rufous on parts of the pleura, covered with flat yellow-white scale-like setae. All bristles brownish. Two strong

scutellar bristles present, and one pair of dorsocentral bristles situated well behind the suture. Humeri brownish with many yellow-white setae. Scutellum yellow tinged with brown. Halteres yellow, squamulae yellow.

Legs : All segments yellow. Front femora



Figs. 1—13. 1.—Head. 2.—Fore leg. 3, 4 & 5—Wings. 6.—Ovipositor. 7.—Apex of Piercer. 8.—Spermathecae. 9.—Male Aedeagus. 10.—Male Fifth Sternum. 11.—Male Surstylus. 12.—Host plant with gall formed by the fly. 13.—Cross section of gall with pupae.

with a row of strong yellow-white bristles beneath (Fig. 2) middle tibiae with a single black spur.

Wings (Fig. 3) : Broadly hyaline at the base to the stigma and to the basal cross-vein, there is a black colouration on the costa at the upper end of the humeral cross-vein and a mark through middle of the sub-costal cell ; stigma is black with a small yellowish spot at the basal lower angle and a little before apex. The hyaline indentations are 3 in cell R_1 just after the stigma, triangular in shape, the first two almost of equal size projecting in to cell R_3 up to vein R_{4+5} , while the third comparatively smaller is confined to cell R_1 . There are two round hyaline spots in cell R_3 , one below the small hyaline wedge and one at the apex of the vein R_{2+3} . There are three hyaline indentations in cell 2nd M_2 . A large hyaline area of irregular margins in the cell M_4 with a small dark spot in the centre projects into cell 1st M_2 as two ovoid spots. 5 round hyaline spots are present in cell R_5 beyond r-m cross vein, and one before the r-m cross vein. A small ovoid hyaline spot is present in the cell M_4 just after the anal cell. r-m cross vein is situated near apical four-fifths of cell 1st M_2 . Apex of the cubital cell lobate.

It should be noted that some specimens show considerable variation in the markings on the wing (Figs. 4 & 5). In addition to the three hyaline indentations in the cell R_1 , sometimes a fourth comparatively smaller and confined to the cell R_1 , just after the third is present. The hyaline spots in cell R_3 also show some variation in some specimens. The 3 hyaline indentations in cell 2nd

M_2 are sometimes fused together at their apices towards the vein M_{1+2} . The hyaline markings in cells R_5 , 1st M_2 , 2nd M_2 and M_4 are quite variable and are not of a definite pattern.

Abdomen : Entirely polished dark brown. Sixth tergum shorter than fifth ; oviscapae shining black with short black hairs ; slightly longer than terga 4 to 5 ; on dorsal margin oviscapae measures about 1.5 m.m ; piercer slender gradually tapering towards the apex (Fig. 7) and about 1.9 m.m long. The extended ovipositor (Fig. 6) viewed from dorsal surface measures about 5.2 m.m ; spermathecae as in Fig 8.

Length : Body, excluding ovipositor, about 7.2 m.m ; wings about 6.4 m.m.
♂ :—Fitting the description of the ♀ except for genital characters ; 5th sternum and genitalia as in figures 9, 10 & 11.

Holotype ♀, India, Meghalaya, Shillong, Risa Colony, 2-vi-1980 ; *Allotype* ♂, same locality, 24-v-1980 ; 13 *paratypes*, 3 ♂♂, same locality, 21-v & 24-v-1980 ; 10 ♀♀, same locality, 21-v to 26-v-1980. All reared from the galls by the author.

Holotype for the present retained in the collections of the Eastern Regional Station of the Zoological Survey of India, Shillong, Meghalaya, and will be deposited in the National Collection of the Zoological Survey of India, Calcutta.

Host Plant : The flies form large galls on the stem of the plant *Inula cappa* (Dc) of the family Asteraceae. (Figs. 12 & 13).

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