

### Zusammenfassung

Die Muskulatur der Saugpumpe von *Argina cribraria* CLERCK wird beschrieben. Zwei Muskelzüge, nämlich der medio-ventrale Dilator des Stomodaeum und der ventro-laterale Dilator des Stomodaeum werden erstmals für die Lepidopteren nachgewiesen.

### Резюме

Описывается мускулатура всасывающего насоса *Argina cribraria* CLERCK. Впервые указывается на две мышцы чешуекрылых — медио-вентральный дилатор и вентро-латеральный дилатор стомодеума.

### Literature

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## A Redescription of *Tephritis zonogastra* Bezzi, 1913

(Diptera: Trypetidae)

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(With 5 textfigures)

*Tephritis zonogastra* was first described by BEZZI in 1913, and the description was based upon a single specimen from Puri (Orissa) collected in 1908. This description is rather insufficient and it is not clear if the specimen was a male or a female. The holotype which was deposited in the Indian Museum, is unfortunately not traceable. MUNRO (1947) further augmented the description, basing his study on a male specimen collected from Mussoorie (N. India) in 1927. The present author is fortunate in having in his collection two males and a female of *T. zonogastra*, and the following redescription is based upon them.

### *Tephritis zonogastra* BEZZI

Female: Body 4.75 mm long; ovicape 1.0 mm long, approximately as long as three preceding abdominal segments; wing 3.5 mm long, about twice as long as wide. Head: about  $1\frac{1}{4}$  times as long as maximum width of eye,  $\frac{3}{4}$  times as long as wide, and 2.37 times as wide as frons; head and its appendages yellow, ocellar triangle bronze; upper half of posterior surface of head bronze, leaving a yellow marginal band containing the postocular row of bristles; antennae yellow, arista brownish yellow; 3rd antennal segment twice as long as second, apically gently curving upwards;

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1st and 2nd antennal segments with some tiny brownish yellow hairs, third segment pubescent; Chaetotaxy: upper orbitals 2; lower orbitals 3; ocellar 1, reaching beyond origin of first lower orbital; inner vertical 1, outer vertical 1, both pointing backwards; all of the foregoing bristles brownish yellow; postverticals 2 pale white (inner longer than outer); postocellar 1 pale white; postorbitals 6 pale white, mixed with a few short brownish yellow hairs; genal 1 brownish yellow; peristome laterally with a few short yellow hairs ventral half posterior surface of head with pale white cilia; no distinct gular bristle; palpi with a few stout brownish yellow bristles at apex; frons with some very fine yellow hairs in the central region. Thorax: about  $1\frac{3}{4}$  times as long as wide; scutellum 0.65 times as long as wide; dorsum light bronze with following yellow regions (humeral callus, sutural callus, a border between wing base and lateral angle of scutellum, lateral and posterior margins of scutellum); postnotum dark bronze; mesopleura, sternopleura and lower half of hypopleura concolourous with dorsum of thorax; propleura slightly tinged with brown and with a number of pale white cilia; other regions of thorax yellow; legs yellow; a light bronze spot on ventral surface of mid-femora slightly before the middle; a similar spot in the middle of ventral surface of hind-femora. Chaetotaxy: bristles brownish yellow; humeral 1; notopleural 1; presutural 1 (in line with anterior notopleural); dorsocentral 1 (slightly behind the midpoint between anterior supraalar and suture, and a little lateral to longitudinal line of prescutellar); anterior supraalar 1; posterior supraalar 1; prescutellar 1; scutellars 2 (apical pair crossed scissor-like); mesopleurals 2; pteropleural 1; sternopleural 1; hind tibiae with a comb of 7 bristles on antero-dorsal aspect; mid tibiae with less developed and less numerous bristles on postero-dorsal aspect; fore femora ventrally with 5 well developed bristles, and dorsally with a double row of 12 relatively shorter bristles; mid femora on the anterior surface with a comb of 6 bristles in the middle, slightly shorter than those of fore femora; dorsal surface of hind femora with an asymmetrical pair of bristles slightly before the apex, wing pattern as shown in the figure. Abdomen: about  $1\frac{1}{2}$  times as long as wide; dorsum light bronze; tergum 2 with a yellow hind border; postero-lateral corners of all terga yellow; pleural membrane yellow; sternum 6 dark bronze, the preceding sterna getting progressively lighter; abdomen covered with tiny pale brown hairs; lateral margins of terga 4-6 with larger bristles; posterior margin of tergum 6 with two bristles; oviscape dark bronze, approximately as long as three preceding segments.

Male: Body 3.75 mm long; wing length 3.5 mm; head and thorax as in the female except that the postorbital row of cilia is composed of 5 cilia and the ventral surface of fore femora possesses only 4 well developed bristles; dorsum of abdomen concolourous with that of female, but the margins of all terga are broadly yellow and the posterior  $\frac{1}{3}$  of tergum 5 is yellow with the bronze pattern posteriorly notched in the middle;

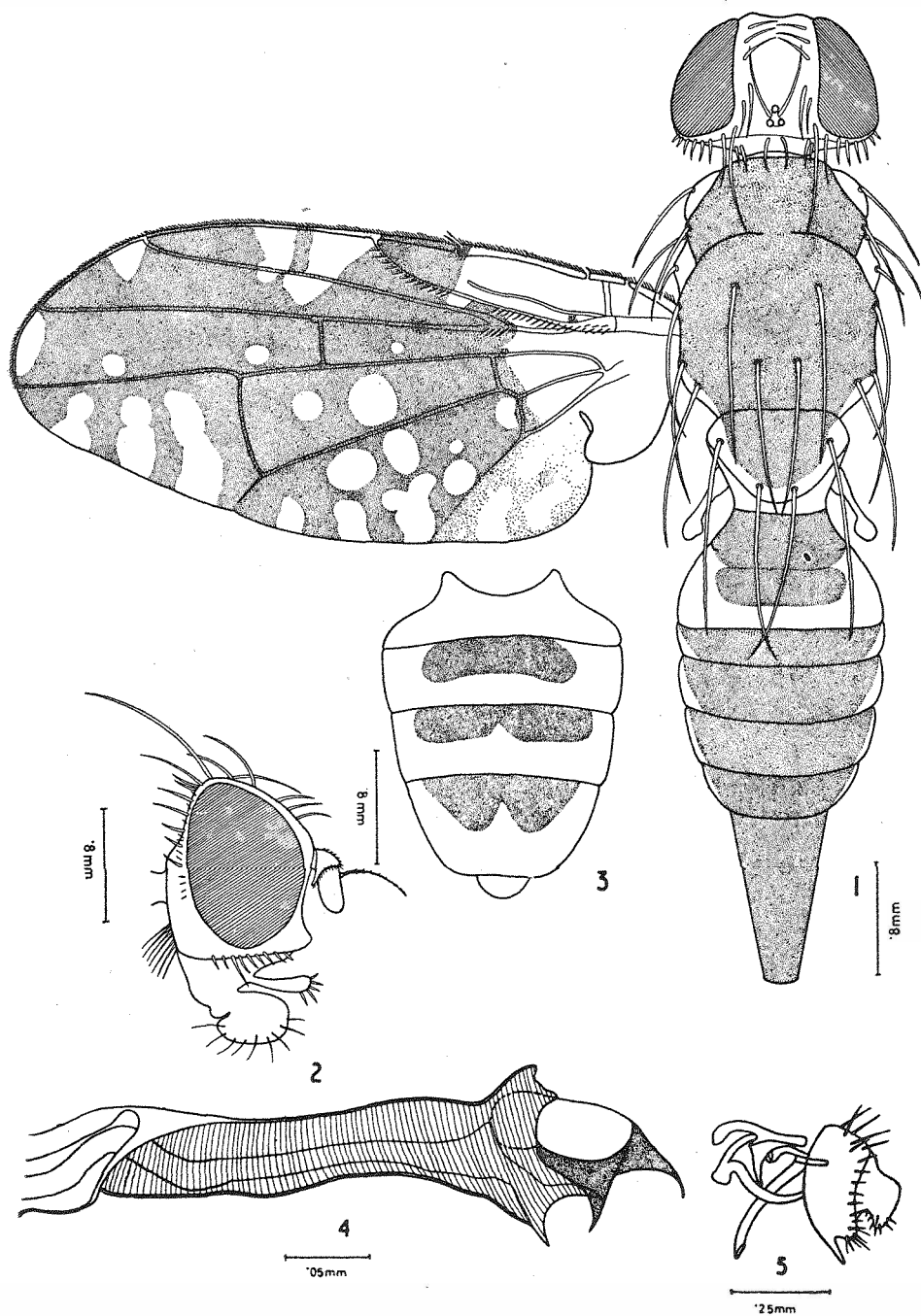


Fig. 1—5. *Tephritis zonogastra* BEZZI. — 1. Adult female. — 2. Head of female in profile. — 3. Abdomen of male. — 4. Aedeagus of male. — 5. Terminalia of male

marginal bristles stronger and more numerous; terminalia light bronze except the proctiger which is yellow; postero-lateral margin of sternum 5 with 2-3 brownish yellow bristles, other sterna with scarcely discernible tiny hairs; stigma of wing with a better developed hyaline spot in the upper basal corner; all sterna much lighter in shade than those of female; tergum 5 about  $\frac{3}{4}$  times as long as terga 3 and 4 combined.

Material: 2 males and 1 female collected on 23. 3. 1959.

Locality: Aligarh, India.

Host: Unknown.

### Discussion

Although BEZZI (1913) in his description of *T. zonogastra* did not indicate the sex of the holotype, he mentioned that the broad black band on the last abdominal segment is narrowly interrupted in the middle. This character, as already mentioned above, is found only in the case of males. Besides, the size of the body as given by BEZZI (4.0 mm) is, more or less, in agreement with the size described by the author (3.75 mm). It seems, therefore, fair to assume that the specimen described by Bezzi was a male. The description subsequently given by MUNRO (1947) based on a male specimen is quite in agreement with that of the author with the only difference that the postorbital row of bristles is mixed with a few brownish yellow hairs (not black, as given by MUNRO). The description of the female given by the present author may be taken as new since there is no record of the female of *T. zonogastra* in earlier literature.

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### Summary

*Tephritis zonogastra* BEZZI is redescribed in detail. It is suggested that although BEZZI in his original description made no mention of the sex, the holotype described by him was a male. The description of the female given by the present author may, therefore, be regarded as new.

### Zusammenfassung

Die vorliegende Arbeit enthält eine ausführliche Nachbeschreibung von *Tephritis zonogastra* BEZZI. Es wird vermutet, daß BEZZI's Holotypus, obgleich seine Beschreibung keine Angaben über das Geschlecht enthält, ein Männchen war, so daß hiermit die Neubeschreibung des Weibchens vorgelegt werden kann.

### Резюме

Настоящая работа содержит подробное дополнительное описание *Tephritis zonogastra* BEZZI. Предполагается, что описанный BEZZI голотип является самцом несмотря на то, что в описании не содержится сведений о поле. Поэтому здесь речь идет о новоописании самки.

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