

## NEW PARASITIC HYMENOPTERA OF THE GENUS EIPHOSOMA.

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The genus *Eiphosoma* consists of Ophionine Ichneumonidæ in which the stigma is elongate, the abdomen long and slender, and the hind femora toothed. It is a characteristic member of the Neotropical fauna, but Brues has recorded *E. septentrionale* from as far north as Pennsylvania. A species collected last year by my wife in Guatemala is found on examination to be new, and when comparing it with the material in the United States National Museum I have found three other species to be described. Brues<sup>1</sup> has given a table of the species occurring in North and Central America; with the new species added, this table may be modified as follows. I omit *E. pyralidis* Ashmead, which is the type of a distinct genus *Brachixiphosoma* Viereck. This *B. pyralidis* is a characteristic member of the Nearctic fauna, having been described from Missouri, and being represented in the National Museum from Agricultural College, Michigan (A. J. Cook), Nyack, New York (Zabriskie), and Ithaca, New York.

Metathorax with only a median black line or band, <sup>2</sup> the suture bounding it anteriorly often black, this black sometimes widened laterally, forming a claviform spot.....	1
Metathorax with lateral black markings, not connected with the anterior suture..	7
1. Mesopleura with a black spot or oblique line or band .....	2
Mesopleura entirely yellow, areolet present.....	6
2. Posterior tibiæ entirely honey yellow; areolet wanting.... <i>nigrovittatum</i> Cresson.	
Posterior tibiæ largely black.....	3
3. Wings broadly fuliginous at apex; areolet absent..... <i>schwarzi</i> , new species.	
Wings hyaline at apex, or with a faint cloud; areolet present.....	4
4. Wings milky; areolet very minute, not longer than its petiole. <i>lacteum</i> , new species.	
Wings not milky.....	5
5. Length about 12 mm.; wings somewhat dusky at tip; species of Pennsylvania.	
<i>septentrionale</i> Brues.	
Much larger; wings wholly clear; species of Mexico and Central America.	
<i>mexicanum</i> Cresson.	

<sup>1</sup> Psyche, vol. 18, p. 21.

<sup>2</sup> A cotype of *E. mexicanum* in the U. S. National Museum has minute black spots on extreme lateral margins, so I have placed this species under both categories. According to Cameron it is variable and widely distributed.

6. Abdomen with large black clouds on fourth and sixth segments; lateral pieces of male genitalia shaped like the end of a finger..... *vitticolle* Cresson  
 Abdomen without black clouds on fourth and sixth segments; lateral pieces of male genitalia spoonlike ..... *motaguense*, new species.
7. Wings entirely hyaline..... 8  
 Wings tipped with dilute fuliginous..... 10
8. Metathorax black, with four yellow stripes..... *texanum* Cresson.  
 Metathorax yellow, with the median excavated space and a line or spot on each side black..... 9
9. Small, anterior wing under 5 mm. long; Cuba; also collected by Busck at Bayamon, Porto Rico..... *annulatum* Cresson.  
 Much larger; anterior wing about 10 mm. long; Mexico and Central America  
*mexicanum* Cresson.
10. Hind tarsi and tibiae yellow; metathorax with three black stripes.  
*atrovittatum* Cresson.  
 Hind tarsi and tibiae with much black..... 11
11. Length about 17 mm.; wings hyaline except for apical cloud .... *aztecum* Cresson  
 Length over 25 mm.; wings conspicuously dusky..... *forte*, new species.

EIPHOSOMA SCHWARZI, new species.

*Female*.—Length about 11 mm. Anterior wing about  $5\frac{1}{2}$  mm.; structure and general type of markings as usual in the genus; wings clear hyaline, broadly fuliginous at tip, the areolet entirely absent; first recurrent nervure with a strong double curve; antennæ black, yellow at base beneath; ground color of head and thorax light chrome yellow; face wholly yellow below antennæ; mandibles dark red at the sharply bidentate apex; ocellar region, middle of front and occiput black; mesothorax black with an elongated U in yellow, the lateral black lobes smooth and hardly punctured except in front; scutellum yellow; mesopleura with an oblique black band; metathorax yellow with a broad median band, which does not reach the base; anterior and middle legs light ferruginous; hind femora red with a blackish shade toward base, and a dark saddle-like mark before apex, the single tooth below this cloud; hind tibiae with more than the median third ferruginous, the rest black; hind tarsi black; abdomen nearly as in *E. mexicanum*, but first joint rather shorter in proportion, and joints beyond middle clouded with black.

*Habitat*.—Cacao, Trece Aguas, Alta Vera Paz, Guatemala, April 14, 1906 (Barber and Schwarz).

*Type*.—Cat. No. 15678, U.S.N.M.

EIPHOSOMA LACTEUM, new species.

*Female*.—Length about 9.5 mm. Anterior wing a little over 5 mm.; structure and markings ordinary, but wings milky hyaline, very white, with the areolet long, petiolate and excessively minute; antennæ black, yellow beneath at base, and the first three flagellar joints narrowly ringed with pale at apex below; ground color of head and thorax rather pale yellow; mesothorax black with sublateral and

marginal yellow bands, the lateral black areas strongly punctured all over; scutellum yellow; mesopleura with a broad black band; metathorax with a broad median black band, in the middle of which is a deep narrow sulcus; at anterior corners of metathorax is a quadrate black patch; anterior and middle legs light ferruginous; hind legs peculiarly colored, their trochanters with femora having the basal half black, interrupted by a cream-colored annulus, which becomes an elongated stripe beneath its apical part on the femur; beyond the black the femora are swollen, with chestnut red, with a black subapical saddle and the apex cream color; the single tooth is below the beginning of the subapical black; hind tibiæ black with a broad yellowish white annulus; hind tarsi black; abdomen ferruginous, strongly blackened dorsally; apex of second segment above broadly ferruginous.

*Habitat*.—Minatitlan, Mexico, February 1, 1892 (H. Osborn).

*Type*.—Cat. No. 15679, U.S.N.M.

EIPHOSOMA MOTAGUENSE, new species.

*Male*.—Length about 17 mm. Anterior wing about 8 mm.; structure and markings ordinary, but mesopleura clear yellow without dark markings; head and antennæ colored as in *E. lacteum*; ground color of head and thorax lemon yellow; mesothorax with three broad black bands, the lateral ones rather sparsely punctured and nearly reaching the anterior border; scutellum yellow; metathorax with a median black band, and the suture anteriorly bounding it black; areolet petioled, but rather large; apex of the anterior wings with a very faint dusky tint, hardly noticeable; anterior and middle legs pale ferruginous, yellow basally; hind legs with first trochanters ferruginous, second cream colored, each blackened or darkened above; hind femora rich chestnut red, broadly black above near base and with a large black subapical saddle, beyond which, on upper side, is a pallid patch; the single spine formed as usual, well developed; hind tibiæ black with the middle broadly ferruginous, especially beneath, their tarsi black; abdomen deep ferruginous, segments 4 to 7 without black patches.

*Habitat*.—Quirigua, Motagua Valley, Guatemala, 1912 (Wilmatte P. Cockerell).

*Type*.—Cat. No. 15680, U.S.N.M.

EIPHOSOMA FORTE, new species.

*Male*.—Length about 28 mm., anterior wing about 15 mm.; structure and markings ordinary, but size very large and black on thorax greatly developed; ground color of head and thorax reddish-yellow; teeth of the bidentate mandibles black; flagellum of antennæ black; mesothorax black with yellow subdorsal and lateral stripes, the

subdorsal expanded anteriorly, the expanded part smooth, punctate only along its upper margin; the black areas of mesothorax coarsely but not very closely punctate; sides of thorax with a broad-margined black triangle, which would be open on the inferior posterior side but for a large black patch placed before the opening; scutellum honey-yellow; metathorax broadly black at base, with also a broad black median band, expanded apically, and the sides broadly black; wings strongly brownish, the apices dilute fuliginous, areolet large and transversely elongate, briefly petiolate; anterior and middle legs light ferruginous, yellow basally; hind legs with the first trochanters black, ferruginous at the pointed apex above, second trochanters ferruginous above and broadly yellow beneath; femora very black, except at apex and extreme base, but a dark red narrow stripe above and most of the under side broadly dark red, the single tooth very strong, placed as usual; hind tibiæ reddish yellow, broadly black at base and apex, their tarsi black; abdomen with a black stripe above; basal half of first segment reddish-yellow; sixth and seventh segments with a large black or blackish saddle; lateral plates of genitalia large, elongated, parallel sided, the basal half red, the apical half black.

*Female*.—Similar to the male except in the usual generic characters; areolet smaller; subapical abdominal segments black above but without the broad saddle-like patches.

*Habitat*.—Mexico, one of each sex, the female labeled 384. The male is the type. No other data are available.

*Type*.—Cat. No. 15681, U.S.N.M.

*Eiphosoma* Cresson has been altered to *Xiphosoma* by certain authors,<sup>1</sup> but this is contrary to the rules, and also impossible on account of the long prior use of the name *Xiphosoma* by Spix for a reptile.

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<sup>1</sup> See Krieger, Zeitschr. Hym. Dipt., vol. 3, p. 291; Szépligeti, *Genera Insectorum, Hymenoptera, Ophionoidæ*, p. 4.