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THE GENUS *MYXOSARGUS* BRAUER (STRATIOMYIDÆ, DIPTERA)

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There are four previously described species belonging to this genus, three of them originally described from Mexico, the other from Brazil. In 1914, Enderlein presented a key for the separation of the species but, since he used the color of the scutellum as a means of separating the species, it is impossible to follow him. In all of the males that I have seen, the scutellum is blackish with yellow spines; in the females, with the exception of *braueri* Williston, the scutellum is yellowish, at most the very narrow base being black. The only species described from both sexes is *fasciatus* Brauer, the type of the genus, and apparently the males of the two species described by Williston are unknown. For this reason it is impossible to present a key which will satisfactorily separate all of the species. References to the original descriptions are given in connection with the species.

MYXOSARGUS Brauer

BRAUER, 1881, Denkschr. Akad. Wissen. Wien, XLIV, p. 77.

ENDERLEIN, 1914, Zool. Anzeiger, XLIII, p. 612.

KEY TO SPECIES

1. Posterior four femora broadly yellow at base.....*scutellatus* Williston.
Posterior femora black on basal half or more..... 2.
2. Basal two antennal segments reddish or brownish yellow..... 3.
Antennæ wholly deep black.....*knowltoni*, n. sp.
3. Males..... 4.
Females..... 6.
4. Front black with two chalk-white marks at base of antennæ... *fasciatus* Brauer.
Front at most obscurely reddish at base of antennæ..... 5.
5. Basal half of wing hyaline; pile of thorax grayish white....*grypus* Enderlein.
Anal cell strongly clouded with brown; middle of mesonotum with yellowish
pile.....*panamensis*, n. sp.
6. Front with a median and two lateral tubercles..... *fasciatus* Brauer.
Front with only one tubercle..... 7.
7. Scutellum black with yellow border.....*braueri* Williston.
Scutellum yellow..... 8.
8. Frontal tubercle geminate, longitudinally divided, knobs of halteres yellow.
panamensis, n. sp.
Frontal tubercle not divided, rather small; knobs of halteres brown. *texensis*, n. sp.

Myzosargus knowltoni, new species

At once distinguished from all the described species by the wholly deep black antennæ. Length, 5 mm.

MALE.—Head metallic greenish black, black-haired, the cheeks with pale yellowish hair. The wholly black antennæ are situated on the prominent rounded tubercle formed by the face and front, the anterior oral margin not conspicuously produced downward and situated only slightly more forward than the upper angle of the frontal triangle.

Thorax black, with more or less metallic-green reflections, the mesonotum metallic green. Scutellum with yellow apex and short yellow spines. Pile yellowish, on the broad sides of the mesonotum and on the mesopleura, black. Knobs of halteres yellow.

Legs black; apices of the posterior four tibiæ reddish, the basal two segments of the posterior four tarsi yellow; anterior femora broadly, the middle pair narrowly reddish yellow at the apex.

Wings cinereous hyaline; the first brown band does not extend backward beyond the anterior margin of the discal cell; second band extending from the apex of the third vein to the second posterior vein, the marginal cell hyaline or only tinged with yellow.

Abdomen black, its dorsum black-haired, the sides with long black pile; venter with short, yellowish pile.

FEMALE.—Pile of head whitish, short, only the lower part of the face with black pile; front without a tubercle, with a silvery triangular spot at either side touching the depression. Pile of thorax whitish and short, the mesonotum with traces of four bronzed vittæ; scutellum yellow with the narrow base black. Middle tarsi with the basal three segments yellowish. Abdominal pile short, whitish on the sides and venter.

TYPES.—Holotype, ♂, Clearfield, Utah, July 12, 1927. Allotype, ♀, Brigham, Utah, July 19, 1927, resting on beetles. Donated to the American Museum by the collector, Mr. G. H. Knowlton.

In this species the face and front are much more produced than in any of the others. It seems probable that this is the species recorded from Georgia by von Roeder and considered by him to be a variety of *fasciatus*.

Myzosargus scutellatus Williston

WILLISTON, 1901, 'Biol. Centr. Amer.,' Dipt., I, p. 251.

Originally described from two females from Mexico and not since recorded. The yellow bases of the posterior four femora will serve as a ready means of identification.

Myzosargus fasciatus Brauer

BRAUER, 1882, Denkschr. Akad. Wien., LXIV, p. 78.

GIGLIO-TOS, 1901, Mem. Acad. Sci. Nat. Torino, XLIII, p. 109.

WILLISTON, 1901, 'Biol. Centr. Amer.,' Dipt., I, p. 251.

An easily recognized species in both sexes: the male has two milky white spots on the front near the antennæ while the female has lateral frontal tubercles in addition to the median one. The scutellum is evidently black in the female.

Described from Mexico and subsequently recorded from Texas, Georgia and North Carolina. Records from these last three localities evidently refer to other species.

***Myxosargus grypus* Enderlein**

ENDERLEIN, 1914, Zool. Anzeig., XLIII, p. 612.

This species is evidently closely related to the following species. The description is drawn from a single male which differs from *panamensis* in having the basal half of the wing hyaline and grayish white pile on the mesonotum. The female will no doubt be found to have a yellow scutellum.

Recorded from southern Mexico.

***Myxosargus panamensis*, new species**

Legs black, in part reddish and yellow; female with yellow scutellum; anal cell brownish gray. Length, 5.5 to 6 mm.

MALE.—Head black with slight metallic reflection; pile white, black only on the quite strongly developed snout. Antennæ with the basal two segments and usually the base of the third below, yellowish or luteous.

Thorax greenish black, the lateral third of the mesonotum and narrow sides of the scutellum of a grayish-green shade, rather metallic; pile whitish, on the median third of the mesonotum and the whole of the scutellum, pale brassy yellow. Narrow lower border of scutellum, except basally, and the long spines, pale yellowish.

Legs black; apical third of the anterior femora, apical fifth or less of the middle pair, narrow base of the middle tibiæ, usually the broad base of the posterior tibiæ dorsally and often the broad apex of the anterior tibiæ, reddish. On the anterior tibiæ the reddish color is usually obscure in the males. Apical half of middle tibiæ, the first four segments of their tarsi and the basal two of the posterior tarsi, reddish yellow, the fourth segment of the middle tarsi brown above; apical segments of the posterior four tarsi brown.

Wings grayish with the anterior basal half and the preapical fascia hyaline, the usual fasciæ and anal cell brownish or at least considerably darker than elsewhere. Knob of halteres greenish.

Abdomen black, black pilose dorsally, the broad sides and venter with yellowish tinged pile.

FEMALE.—Front with a geminate median tubercle; pile of thorax and abdomen shorter; silvery spots at either end of the frontal depression small; anterior tibiæ often more or less reddish basally and always broadly reddish at the apex, the posterior tibiæ reddish on the apical third.

TYPES.—Holotype, ♂, Barro Colorado Island, December 27, 1928. Allotype, ♀, Barro Colorado Island, February 18, 1929. Paratypes: three males, Panama

City, December 28, 1928; four males and three females, Barro Colorado Island, December 21, 25, 27, 28, 1928 and January 10 and 28, 1929; male, Fort Davis, February 9, 1928; male and five females, Corozal, January 16, 22 and February 4, 1929 (C. H. Curran). All of these localities, except Panama City, are in the Canal Zone.

***Myzosargus texensis*, new species**

First segment of anterior tarsi yellow on posterior surface. Length, 6 mm.

FEMALE.—Head shining black, short white pilose, the downwardly produced "beak" with brown hair which becomes black at the apex; frontal tubercle small, silvery spots at sides of frontal depression sub-rectangular. Basal two antennal segments yellowish brown or luteous, the apical segment brown.

Thorax greenish black, in some lights with a pair of broad, narrowly separated pale vittæ which may appear somewhat bronzed in other lights. Pile whitish, short. Scutellum pale yellow with the base narrowly black.

Coxæ and femora black, apical third of anterior femora yellowish, apex of middle femora more or less broadly, reddish; all the tibiæ with the base reddish and the apical half yellow; first segment of anterior tarsi yellow posteriorly, the basal three segments of the posterior four pairs and the under surface of the fourth segment of the middle tarsi, yellow.

Wings cinereous hyaline, with the usual brownish crossbands; knobs of halteres brown.

Abdomen brownish black, black-haired dorsally, the broad sides and venter with short whitish hair.

TYPES.—Holotype, ♀, Austin, Texas. Paratype, ♀, same data. The specimens are from the Wheeler collection.

***Myzosargus braueri* Williston**

WILLISTON, 1888, Trans Amer. Ent. Soc., XV, p. 254.

This species is represented by three type specimens from Corumba. It is quite easily recognized in the female on account of the black scutellum and single frontal tubercle. The male has not been described.

Originally described from Brazil.