THREE NEW SPECIES OF PARASYNTORMON WITH A TABLE OF SPECIES. (DOLICHOPODIDAE, DIPTERA).

BY M. C. VANDUZEE,

Buffalo, N. Y.

TABLE OF MALES.

1. Arista apical or nearly so2.
Arista distinctly dorsal, although sometimes placed at apical fourth of third antennal joint7.
2. Third antennal joint about twice as long as the height of the head.
(Mexico)*wheeleri* Aldrich.
Third antennal joint about as long as the height of the head, or shorter3.
3. First antennal joint more or less yellowish white below
(California)*lagotis* Wheeler.
Antennæ wholly black4.
4. Arista distinctly subapical, fully half as long as third antennal joint,
(Wyoming)*himmulus* Wheeler.
Arista wholly apical, about one fifth as long as the third joint5.
5. Third antennal joint nearly evenly rounded below, (California;
Colorado)*asellus* Wheeler.
Third antennal joint but little narrowed before its middle, where there is a small offset below, from which point it rapidly tapers to a point6.
6. Fore coxæ and femora largely blackish (California) *fraterculus* new species.
Fore coxæ and femora pale yellow, (California)*mulinum* new species.
7. Arista inserted near apical fourth of third antennal joint8.
Arista inserted at or before the middle of the third antennal joint9.
8. Third antennal joint with a small offset at insertion of arista both above and below, (California)*emarginatum* Wheeler.
Third antennal joint evenly rounded below, not notched above,
(California)*lepus* VanDuzee.
9. Arista twice as long as the third antennal joint, which is subquadrate,
(Wyoming; Utah; Nevada)*occidentale* Aldrich.
Arista not or but little longer than the antenna10.
10. Third antennal joint large, obliquely truncate at tip, (Wyoming;
California)*montivagum* Wheeler.
Third antennal joint gradually tapering from near its base to an acute point,
(California)*flavicoxa* new species.

Parasyntormon fraterculus n. sp.

Male: Length 2 mm. Face narrow, brown with a little white pollen at lower edge. Palpi brown. Proboscis yellowish brown. Front a little green. Antennæ black; third joint about as long as the height of the head, basal half of nearly equal width, at the middle of lower edge there is a slight offset, from which point it tapers rapidly to a point; arista apical, about one fifth as long as the third antennal joint; second joint lapping over the third about one fifth of the length of the latter.

Thorax and scutellum bronze green, dulled with gray pollen. Abdomen more coppery, without yellow even on the venter. Hypopygium shining black

with a few short stiff bristles; outer lamellæ narrow, brownish, fringed with long black hairs; inner appendages even more conspicuous, consisting of a pair of black halter-like organs with the knob somewhat obcordate.

All coxæ black with their tips narrowly yellowish; fore and middle femora blackish on basal half or more; posterior pair blackish above, yellowish on lower half. The anterior ones have the usual row of rather long delicate black hairs below. Fore and middle tibiæ and basitarsi dark yellow; posterior tibiæ and tarsi almost wholly infuscated. Fore tarsi black from the tip of first joint; first joint with the usual three bristles below on basal half; second joint swollen as in all the species of the genus. Middle tarsi almost wholly infuscated. Hind tarsi with the second and third joints of nearly equal length, first shorter. Calypters and halteres yellow, the cilia of the former black, at least in most lights.

Wings uniformly tinged with brown; fourth vein parallel with third, ending in the apex of the wing; last section of fifth vein fully three times as long as the cross-vein; anal angle prominent.

Described from one male which I took at Watts, Los Angeles Co., Calif., April 1, 1915. Type in the authors collection.

Parasyntormon mulinum n. sp.

Male: This agrees with *fraterculus* in size, the color of head and thorax and in the form of the antennæ.

The abdomen is bronze green, the venter and sides of the second and third segments yellow. Hypopygium small, black with a few short blunt bristles; the outer lamellæ are yellowish brown, rather narrow, fringed all around with black hairs; I cannot see any inner appendages.

Fore coxæ yellow, middle and hind ones mostly black, their tips yellow. Femora and tibiæ yellow, tips of the posterior femora brownish. Fore tarsi black from the tip of the first joint, which has four bristles on the lower edge of basal half; second joint incrassated as usual in this genus. Middle and hind tarsi mostly brownish black, the latter with the first and third joints about equal in length, second joint longer. Calypters yellow with black tips and cilia. Halteres yellow. Wings about as in *fraterculus*.

Described from one male which I took at Carrizo Creek, San Diego Co., California, April 17, 1915. Type in the author's collection.

Parasyntormon flavicoxa n. sp.

Male: Length 3 mm. Face white, very narrow, the eyes almost touching below. Front blackish. Palpi white, small. Proboscis yellow. Antennæ black; third joint about as long as the face, which is also long, they taper to an acute point and are slightly notched where the arista is inserted at about its basal third. Arista a little longer than the antennæ.

Thorax green, dulled with brownish gray pollen. Abdomen dark green, the venter on second to fourth segments yellow, this color extends on to the dorsum on the second and third segments; the hairs of the abdomen are yellowish. Hypopygium rather large for the genus, blackish; its lamellæ small, narrow, fringed with hairs on the edges; the inner appendages are a pair of rather long yellow organs, which are enlarged at tip where there are several stiff hairs, on the side of their stem is a short blunt branch with two hairs at tip.

All coxæ, femora, tibiæ and basitarsi pale yellow; tips of hind femora brown above; the usual row of bristles on the lower edge of fore femora are yellow, still they appear brown or black in certain lights. Fore basitarsus with four bristles below on basal half; second joint enlarged as usual in this genus. Middle tibiæ with row of delicate black hairs on apical half of lower surface, which are as long as the diameter of the tibia. Middle tarsi infuscated from the base of second joint, hind ones almost to the base of first joint; first and third joints of hind tarsi of equal length, second joint longer. Calypters pale yellow with black tips, their cilia yellow, appearing brown in certain lights.

Wings dark grayish; they seem to be formed about as usual in the genus but are folded so as to make it difficult to see details.

Described from one male, which I took at Berkeley, California, May 23, 1915. Type in the author's collection.

MICROLEPIDOPTERA : NOTES AND NEW SPECIES.

BY ANNETTE F. BRAUN,

Cincinnati, Ohio.

Marmara fraxinicola n. sp.

Maxillary palpi white inwardly, black outwardly; labial palpi white, outer side of second segment and a spot near tip of third segment black. Antennæ white, pecten black. Head, thorax and fore wings shining white. At extreme base of costa, a small brown spot, outwardly margined with dark brown scales; immediately following it, and connected with it by minute brown dusting is a large spot reaching to the fold, with a few scattered brown scales below the fold, dark margined outwardly and on the costa inwardly. Just before middle of wing a brown fascia, angulated on the fold, and narrowing beneath it, sometimes only the dark brown margin reaching the dorsum. At two-thirds an oblique fascia, forked below costa, the inner fork indistinct and continued in a line to the dorsum, the outer fork convex and curving to dorsum at tornus; between here and the apex, an oblique slightly curved fascia. A minute brown apical spot, lying in the angle between two oblique brown lines running into the white cilia on either side of the apex; a brown line through base of apical cilia between these two oblique lines. Hind wings and cilia dark brown, concolorous with dark brown margins of the fasciæ. Legs white, anterior and middle femora brown, hind legs with oblique brown streaks. Expanse : 8.5 mm.

Type (♀) in the writer's collection; Cincinnati, Ohio, May 13.

The larva is a miner in twigs of white ash (*Fraxinus americana*). The larva begins its work in the new growth, and finishes mining in March and April of the following year. The mine is extremely long and is rarely found except on saplings or in rapidly growing shoots. Pupation takes place about the last of April, in an elevated fold of the bark at the end of the mine.

This species is distinguished from its nearest allies (*fulgidella* Clem. and *clotella* Busck) by the dark brown lustreless hind wings, and by details of the wing markings.