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DIPTEROLOGICAL CONTRIBUTIONS, *C. F. Adams.*

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DIPTEROLOGICAL CONTRIBUTIONS.

BY C. F. ADAMS.

FOR the pleasure of studying diptera in the University of Kansas, I have to thank Dr. F. H. Snow, whose interest in things scientific is so well known. To Dr. S. W. Williston I am under deep obligations, for the use of his dipterological library and his collection. To Prof. J. M. Aldrich and Mr. D. W. Croquillet thanks are due for looking up references.

The material reported in this paper comes principally from two localities, Rhodesia, Africa, and western North America. The African material was collected by Mr. F. L. Snow, son of Dr. F. H. Snow, while visiting near Salisbury, Rhodesia. This lot is a very important addition to the University collection, and as I get time and literature more at my command I shall report further concerning it. Most of the American species were collected by expeditions under the direction of Doctor Snow. I have Doctor Williston's consent for including his two new species in this paper.

I. NORTH AMERICAN SPECIES.

MYCETOPHILIDÆ.

Mycetobia marginalis, n. sp.

Female: Black, shining; head black, subshining, tip of palpi yellow; mesonotum black, shining, humeri, lateral and posterior margins, and scutellum with a reddish cast, pile yellow, pleuræ black, mostly shining, halteres brown; abdomen light yellow, last segment wholly, and the preceding with the basal half, blackish; legs light yellow, tips of tarsi fuscous; wings agree very well with those of *M. palipes* Meig., except the auxiliary vein is a little shorter. Length, 3.5 mm.

One specimen; Atherton, Mo. Collected by the writer, May 3, 1901.

Macrocera diluta, n. sp.

Male: Yellow, shining; antennæ, except base, two striated on occiput, three fascia on mesonotum, the central one joined to two narrow ones coming from base of wings, three spots on pleuræ, lower half of metanotum, base of abdominal segments from the third, with hypopygium wholly, small spot on base of middle and posterior coxæ, tips of femora and tibiæ dark brown; wings hyaline, fascia near central part dark brown, small fuscous spot on anterior margin about midway between tip of anterior branch of third vein and apex of wing, not reaching fourth vein.

Female: Agrees with the male, except that all of the abdominal segments, without the first, have the base dark brown; subapical spot of wing is larger, crossing the anterior branch of the fourth vein. Length, 5 mm.; antennæ, 7 mm.

A specimen of each sex; Arizona, August. Prof. F. H. Snow.

Ceroplatus apicalis, n. sp.

Male: Head brownish, anterior part of front, two basal joints of antennæ, face and mouth-parts yellow; thorax immaculate reddish yellow, the black pile very short, except on the sides, pleuræ light yellow, halteres with knobs slightly infuscated, abdomen reddish yellow, base of second, third, fourth, and remainder of apex wholly black; legs light yellow, apical half of tibiæ and tarsi wholly blackish; wings hyaline, smoky toward apex, auxiliary vein ends in the costa about midway between humeral cross-vein and base of third, anterior branch of third ends in costa about midway between tip of first and apex of second branch of third, furcation of fifth almost opposite base of second. Length, 3.7 mm.

One specimen; Douglas county, Kansas. E. S. Tucker.

Sciophila angulata, n. sp.

Female: Yellow, subshining; head black, anterior part of front, base of antennæ, face and mouth-parts yellow; thorax yellow, mesonotum with three subcoalesced fuscous fascia, the middle one abbreviated behind, the lateral ones in front, pleuræ rather long and yellow, large spot on the pleuræ above middle coxæ brown; abdomen yellow, base of segments brown, posterior black; legs light yellow, anterior tibiæ shorter than their tarsi.

tips of tarsi fuscous ; wings grayish hyaline, marginal cell twice as long as broad, anterior branch of third vein angulate, its apex turned towards base of wing, auxiliary cross-vein slightly beyond middle of marginal cell. Length, 6 mm.

Manitou Park, Colo., August. Prof. F. H. Snow.

It is near *S. flavohirta* Coq., but differs in the markings of the thorax, length of anterior tibiæ, and the angulated anterior branch of the third longitudinal vein.

***Sciophila nigricauda*, n. sp.**

Male : Yellow, subshining ; head black, base of antennæ and mouth-parts yellow, sparse pile black ; thorax yellow, in places slightly tinged with brown, viewed from before slightly grayish pollinose, pile black, halteres yellow ; abdomen yellow, apices of segments, last one wholly black, hypopygium yellow, pile light brown ; legs yellow, tarsi, except base, fuscous ; wings hyaline, larger veins brown, auxiliary cross-vein near apex of auxiliary vein and just before the middle of the marginal cell, first branch of fourth vein about as long as its prefurca, furcation of the fifth vein takes place just beyond the small cross-vein. Length, 4 mm.

One specimen ; Colorado City, Colo., July, 1894. E. S. Tucker.

***Tetragoneura nitida*, n. sp.**

Female : Black, shining ; head black, front bearing yellow pile, antennæ dark brown, first two joints and palpi yellowish ; mesonotum black, shining, pile yellow, bristles on margins black, scutellum black, bristles yellow, metanotum and pleuræ black, halteres yellow ; abdomen wholly shining black, pile yellow ; legs yellow, with tip of hind femora, middle and hind tibiæ and all tarsi brown ; wings hyaline, tinged with brown on the anterior part, auxiliary vein short, ending free, the furcation of the fourth vein is slightly distad to that of the third, the furcation of the fifth is nearly opposite the junction of the small cross- and fourth veins. Length, 2.7 mm.

One specimen ; Atherton, Mo. Collected by writer, May 5, 1901.

Sytemna mutor, n. sp.

Male: Black, subshining; head black, base of third antennal joint and apex of palpi, brownish yellow, antennæ sericeous, front with a few yellowish hairs; mesonotum black, subshining, covered with thin, grayish pollen and yellow pile, a few black bristles on lateral margins near base of wings, scutellum black, bristles concolorous, pleuræ black, bearing sparse yellow pile above front coxæ, metanotum black, halteres yellowish; abdomen in the majority of specimens fulvous except the last segment and hypopygium, which are black, in other specimens the abdomen is largely black, and in one specimen, it is entirely so, pile in all specimens yellow; legs yellow, middle tibiæ on posterior side and tarsi, except base of metatarsi, brown; wings grayish hyaline, tip with a slight blackish tinge, anterior veins dark brown, others lighter, auxiliary vein joins first nearly opposite the base of the fourth, furcation of the fourth and fifth veins opposite the junction of third and small cross-vein.

Female: Agrees with the male, except that the pile of the thorax is almost wholly black, the abdomen is more uniformly fulvous, and the furcation of the fourth vein is a little more proximad than that of the fifth. Length, 3.5 mm.

Many specimens of both sexes; Atherton, Mo. Collected by the writer, during April and May, 1899, 1900, 1901.

Boletina abdominalis, n. sp.

Male: Black, subshining; head and members black, except first antennal joint, which is tinged with yellow, middle ocellus very small; mesonotum black, subshining, covered with yellow pile, which are inclined to arrange themselves into rows, scutellum black, pile yellow, pleuræ black, without pile, metanotum black, halteres black; abdomen wholly black, subopaque, hypopygium with a yellowish tinge, pile yellow; legs yellowish, trochanters and tarsi, except base, largely fuscous; wings grayish hyaline, veins fuscous, auxiliary vein joins costa opposite base of third, auxiliary cross-vein slightly before junction of small cross-vein and the fourth, furcation of fifth vein is just distad to the same, and the furcation of the fourth is distad to the junction of the small cross-vein and the third. Length, 3.5 mm.

Atherton, Mo. Collected by the writer, April 13, 1900.

Neoglaphyoptera lineola, n. sp.

Female: Differs from *N. stiata* Will., in the following particulars: The brown of occiput is sharply defined, the center and sides being yellow; pleuræ with a brown spot anterior to and above the middle coxæ, metapleuræ above hind coxæ brown; the last two abdominal segments almost wholly yellow; all trochanters, the posterior coxæ and femora black, the latter with a narrow longitudinal line on the inner and outer sides, yellow; the brown cross-band on outer part of wing is much broader. Length, 4 mm.

One specimen; Kern county, California.

Neoglaphyoptera cuneola, n. sp.

Female: Yellow, shining; vertex with a transverse black line, occiput with a reddish cast and sparse yellow pile, antennæ, except base, dark brown; mesonotum with three shining black stripes, the two lateral ones nearly as broad as long, the middle one wedge-shaped, scarcely reaching the middle of the dorsum, pile yellow, scutellum yellow, with two long yellow bristles; pleuræ black, yellow above anterior coxæ, metanotum black, halteres yellow; abdomen shining black, except narrow lateral margins, apex, and venter, which are yellowish, pile very short and yellow; legs yellow, a small spot on trochanters, extreme tip of posterior femora, tibiæ, and tarsi in large part, fuscous; wings hyaline, a brownish fascia traversing the wing, starting about midway between tip of first vein and apex of wing. Length, 4 mm.

One specimen; Colorado Springs, Colo., August, 1894. Collected by E. S. Tucker.

CULICIDÆ.

Culex affinis, n. sp.

Female: Head and members dark brown, proboscis lighter in the middle; scales of head light brown; thorax brown, mesonotum uniformly covered with brownish yellow scales, pile black, scales of pleuræ mostly white, abdomen brownish scaled, a narrow band at bases of segments white, pile pale yellow, venter white-scaled; coxæ and base of femora pale yellow, distal end of latter dark brown, tibia dark brown with extreme apex and base white; tarsi concolorous with both ends of joints white, which on the front tarsi is indistinct, and the last joint