

## NEW DIPTERA FROM SOUTHERN AFRICA.

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*Custodian, Section of Diptera.*

During a visit to the United States National Museum last year, Mr. Charles P. Lounsbury, the government entomologist of Cape Colony, Africa, brought with him a small but very interesting collection of Diptera which he wished to have identified, permitting the retention of specimens representing species new to the Museum collection and requesting that the new forms be duly named and described. As this task has now been completed, the descriptions are offered herewith.

### SIMULIUM NIGRITARSIS, new species.

Black, the bases of the antennæ, humeri, halteres, front coxæ, femora except apices of the middle and hind ones, and the tibiæ except their apices, yellow; front femora and their tibiæ sometimes wholly yellow; usually a yellow spot below the humeri; hairs of head and body pale yellow; wings hyaline, the costa, first three veins and first section of the fourth robust, yellowish, the others nearly transparent; length 2.5 to 3 mm. Six female specimens. Paratypes have been returned to Mr. Lounsbury.

*Habitat.*—Cape Colony, Africa.

*Type.*—Cat. No. 5785, U.S.N.M.

### DACUS LOUNSBURYII, new species.

Head yellow, occiput, except the upper and lateral margins, reddish brown, frontal vitta except its lower end reddish brown, an ocellar spot, one near center of front and one on the lunule, blackish, a row of four blackish dots along each orbit; a broad reddish stripe in middle of face, a black spot on either side near its middle, an oblique reddish line near each orbit, and a large black spot below each eye; antennæ nearly twice as long as the head, brownish red, the extreme base yellow, the third joint black; palpi and proboscis brownish red, apex of the latter largely yellow; body reddish brown, indistinctly

marked with blackish, mesonotum marked behind the suture with three yellow vittae, a yellow fascia extends along the suture, crosses the mesopleura and encroaches on the sternopleura; a spot on the hypopleura, hind margin of the scutellum and of the second abdominal segment laterally yellow; abdomen three times as long as wide, the third segment in the male bearing a row of black bristles extending from the venter half way to the middle of the dorsum, situated a short distance in front of the hind margin; wings hyaline, a brownish band along the costa, filling apex of subcostal cell beyond auxiliary vein, the whole of the marginal and submarginal cells, apical three-fourths of the first posterior and upper edge of the second posterior cell, faintest in basal portion of submarginal cell and darkest in the posterior cells, that in first posterior cell sometimes having a subhyaline median streak; anal cell filled with yellow and brown, its lobe and the vein extending beyond its apex bordered with brown; base of first basal cell to forking of second and third veins yellowish; legs reddish brown, first tarsal joint except apex, and broad bases of hind femora, white; halteres whitish, bases of the stems reddish brown; basal segment of ovipositor of female greatly flattened, shorter than the preceding abdominal segment; length 11 mm. Three males and seven females. Paratypes returned to Mr. Lounsbury, for whom this fine, large species is named.

*Habitat*.—Capetown and Wynberg, Cape Colony, Africa.

*Type*.—Cat. No. 5786, U.S.N.M.

**DACUS BREVIS**, new species.

Head yellow, frontal vitta sometimes tinged in places with reddish yellow, the occiput except along the eyes yellowish brown, a dark brown spot above center of front, a small black spot on the ocelli, three along each orbit, one on the frontal lunule, and one on either side of center of face, a brown spot below each eye; antennae shorter than the head, yellowish brown, becoming dark brown at the apex, arista black, the base yellowish, proboscis and palpi brownish yellow; body reddish brown, mesonotum and abdomen with a mediodorsal black line, and sometimes with blackish markings; humeri, a stripe along the thoracic suture crossing the mesopleura and encroaching on the sternopleura, a rounded spot on the hypopleura, and the scutellum except its extreme base, yellow; abdomen one and a half times as long as wide, the third segment in the male bearing a row of black bristles extending from the venter nearly halfway to the middle of the dorsum; wings hyaline, the subcostal and marginal cells, base and usually the very narrow upper edge of the submarginal cell beyond apex of the marginal about halfway to tip of third vein, where it expands and fills the entire apical portion of this cell and encroaches on the first posterior cell, brown, a brown cloud on distal part of anal cell; apex of

fourth vein not or very slightly approaching toward the third vein; legs yellow, apices of middle and hind femora and bases of middle tibiae yellowish brown, hind tibiae largely and last four joints of all the tarsi reddish brown; tibiae and apices of femora sometimes yellowish red; halteres yellow; ovipositor of female almost cylindrical, the basal segment shorter than the last abdominal segment; length 5.5 to 6.5 mm. Two males and four females. Paratypes returned to Mr. Lounsbury.

*Habitat.*—Bathurst, Cape Colony, Africa.

*Type.*—Cat. No. 5787, U.S.N.M.

DACUS SIGMOIDES, new species.

Differs from the above description of *brevis* only as follows: The dark brown spot above center of front is connected with the upper two spots in each of the orbital rows, no brown spot below each eye, no mediodorsal black line on the abdomen, apical section of fourth vein strongly bisinuous, the apex strongly approaching toward the third vein, legs yellow, the apices of the femora, bases of the tibiae and last four joints of the tarsi slightly darker, more brownish yellow, knob of halteres yellowish brown, ovipositor greatly flattened, the basal segment one and one-fourth times as long as the last abdominal segment; length 7 mm. A female specimen.

*Habitat.*—Island of Mauritius, Africa.

*Type.*—Cat. No. 5788, U.S.N.M.

DACUS IMMACULATUS, new species.

Differs from *brevis* as follows: The spot above center of front scarcely darker than the reddish-yellow frontal vitta, no black spots on the face, bases of palpi pale yellow, yellow spot on each hypopleura nearly twice as long as wide, abdomen almost twice as long as wide, brown in marginal cell not connected with that in apex of the submarginal, the latter extending one-third of distance from apex of third vein to apex of second, ovipositor of female greatly flattened, legs yellow; length 5 to 6.5 mm. Four males and four females. Paratypes returned to Mr. Lounsbury.

*Habitat.*—East London, Cape Colony, Africa.

*Type.*—Cat. No. 5789, U.S.N.M.

Near *binotatus* Loew, as I identify it, but with much paler legs and flattened, instead of cylindrical, ovipositor.

CERATITIS RUBIVORA, new species.

Head yellowish, a gray spot streaked with black above the neck and sending a wide stripe to each eye, a black ocellar dot; mouth parts and antennae yellow, the arista short plumose, brown, the base yellow, antennae three-fourths as long as the face, front in both sexes bearing only normal bristles; thorax yellowish brown, largely grayish pruinose, mesonotum marked on each side with a broad, interrupted, black,

polished stripe and with three narrow, indistinct, black, median lines which at their posterior ends expand so as to meet each other; between this point and the scutellum is a transverse pair of polished, whitish spots, humeri whitish, upper part of mesopleura yellow; scutellum yellow, the outer margin marked with three black spots, metanotum polished black, crossed in the middle by a broad, transverse, opaque, grayish pruinose fascia emarginate in the middle of the lower edge, two yellow spots on each side of the metathorax; abdomen yellowish, the third and fifth segments, except a large triangular spot in middle of each, black; wings hyaline, a brown crossband on a line with the humeral crossvein, followed by about ten brown dots; a second brown crossband, yellowish in the vicinity of the small crossvein, extends from the costa beyond apex of auxiliary vein to apex of the sixth, including the small crossvein in its outer portion; a brown stripe, yellowish in the central part, extends close to the costa from beyond apex of first vein to beyond apex of the third, its margins marked with 4 or 5 darker brown dots; an elongated, oblique, brown spot on the fourth vein before its apex, and a larger one bordering the hind crossvein; legs yellow, in the male the front femora marked with a black streak on the upper and another on the posterior side, middle femora on the broad apex, except a streak on the anterior side and the extreme apex, black; hind femora with a black spot before apex of under side prolonged as a streak in the middle of the anterior side; middle tibiae, except the extreme ends, black; in the male the under side of middle femora on the apical half, also the inner and outer sides of the middle tibiae, densely fringed with long flattened bristles; halteres yellowish; ovipositor of female greatly flattened, the basal piece as long as the last two abdominal segments; length 4 to 5 mm. Fifteen males and ten females. Paratypes returned to Mr. Lounsbury.

*Habitat*.—Wynberg, Cape Colony, Africa.

*Type*.—Cat. No. 5790, U.S.N.M.

#### CERATITIS LYCII, new species.

Head yellow, a black spot above the neck, sending a branch to each eye, a black spot in the middle of upper part of face; antennae yellow, three-fourths as long as the face, proboscis brown, the palpi yellow; body black, mesonotum opaque, grayish pruinose, the margin, produced inward at the front and hind angles and in the middle in front, also a pair of round dots behind the suture, polished; a spot on the humerus uniting with a broad stripe on upper edge of pleura, also a sinuous, interrupted line at base of scutellum, light yellowish; abdomen polished, the posterior portion of the first and third segments opaque, whitish pruinose, remainder of third segment opaque, brownish pruinose; ovipositor flat beneath, convex above, the basal portion

as long as the last two abdominal segments; wings hyaline, a broad brown crossband on a line with humeral crossvein, followed by 3 or 4 longitudinal brown streaks and about 9 brown dots, a second brown crossband extends from beyond apex of auxiliary vein to apex of last vein, at the costa united with a broad brown stripe that extends along the costa to midway between apices of third and fourth veins, filling the costal margin to the third vein and near middle of last section of the latter sending a branch obliquely to the wing margin below apex of fourth vein; the second crossband also sends a branch from the small crossvein obliquely to the apex of the fifth vein, covering the hind crossvein; the costal margin is very narrowly hyaline between apices of the first and third veins, except a pair of brown dots between apices of first and second veins; extreme base of wings yellowish; legs, including the front coxæ, yellow; length 4 mm. Two female specimens.

*Habitat.*—Cape Colony, Africa.

*Type.*—Cat. No. 5791, U.S.N.M.

ZAPRIONUS, new genus, DROSOPHILIDÆ.

Near *Drosophila*, but the head longer than high, the front femora of the male with tubercles on the under sides, the bristly hairs of mesonotum arranged in distinct rows, and the front and thorax marked with silvery white lines. Front noticeably longer than wide, narrowing anteriorly, two pairs of vertical, one pair of ocellar, and one of postvertical bristles, two pairs of reclinate and more anteriorly one proclinate pair of orbital bristles, vibrissæ stout, middle of face with a very high, broad, rounded carina, antennæ three-fourths as long as the face, the third joint one and a half times as long as broad, arista bearing five long bristles on the upper side and two on the lower, clypeus projecting far beyond the oral margin; proboscis robust, labella fleshy, palpi large, eyes slightly higher than long, densely pubescent; thorax bearing two pairs of dorsocentral bristles, the bristly hairs between the two dorsocentral rows arranged in six distinct rows; five supra-alar bristles, the anterior one in front of the suture, two humeral, two posthumeral and two sternopleural bristles, scutellum bearing four bristles, otherwise bare; auxiliary vein distinct at its base only, small and hind crossveins present, second basal cell confluent with the discal, anal cell present, the vein at its apex reaching about halfway to the wing-margin, axillary angle distinct; front femora of male somewhat thickened, on the apical two-thirds of the under side bearing a row of four short, black, forwardly directed tubercles, each of which bears at the base of the posterior side a backwardly directed spinous bristle; middle and hind femora and ail tibiae without bristles except one at apex of inner side of each middle tibia.

*Type*, the following species:

ZAPRIONUS VITTIGER, new species.

Head and its members yellow, front opaque, dark reddish yellow, a silvery white line along each eye and next to this a dark brown line, a black ocellar dot, several short bristly hairs on lower half of front, eyes bordered with whitish, outer side of second antennal joint largely white, the third joint and the arista brown; mesonotum and scutellum rich dark reddish brown, opaque, the former marked with four nearly equidistant silvery white lines bordered with dark brown, the median pair prolonged over the scutellum, the others passing just above the posthumeral bristles; pleura marked with a median white line, the portion above it yellowish brown, that below it yellow; metathorax brownish yellow, abdomen polished, yellowish brown; legs yellow; wings grayish hyaline; length, 2.5 to 3 mm. Three male specimens.

*Habitat*.—Cape Colony, Africa.

*Type*.—Cat. No. 5792, U.S.N.M.