

Notes on the Genus *Trichoprosopon* (Diptera, Culicidae).

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The recent publication of "Os Sabetineos da America" (Lane and Cerqueira, 1942) led to the restudy of certain species of the genus *Trichoprosopon* found in the collection of the United States National Museum. It was discovered that in both *T. digitatum* (Rondani) and *T. compressum* Lutz scales may be present on the clypeus, and that *mogilasium* (D. & K.) had been incorrectly treated as a variety of *digitatum*. When these observations were transmitted to Mr. Lane he suggested that I prepare a paper on the subject. At the same time he asked that certain other species be examined and any necessary notes or new descriptions be included in the same paper. The present paper treats of one new species, one new variety, and several new synonymies; and at the same time several misdeterminations that have appeared in the literature are corrected.

Trichoprosopon (T.) digitatum (Rondani),
typical variety.

Culex digitatus Rondani, 1848, Baudine e Truqui Studi Ent. 1: 109.
Trichoprosopon nivipes Theobald, 1901, Mon. Culic. 2: 285.
Trichoprosopon splendens Lutz, 1905, Imp. Med. 13: 169.
Trichoprosopon wilsoni Ludlow, 1918, Psyche 25: 65 (in part).
Joblotia splendens var. *subsplendens* Martini, 1931, Rev. Ent. 1: 200.

This is characterized by having hairs, but no scales, on the clypeus, a partial fringe of hairs on the squamula of the wing, and a few broad, appressed scales on the middle of the postnotum.

It cannot be determined whether the type of *digitatum* possessed scales on the clypeus, but lacking proof to the contrary, it is best to retain the name for the most frequently encountered, unscaled variety. Theobald shows no scales on the clypeus in his figure of *nivipes*. Lutz definitely mentions hairs only on the clypeus of *splendens*, and Martini, in describing the variety *subsplendens*, mentions no scales on the clypeus, so it is probable that these two differ from the type of *digitatum* only in the extent of white on the fore legs, an extremely variable condition of no significance. We have seen no specimens from Peru with the clypeus scaled.

In the original description of *Trichoprosopon wilsoni* Ludlow, the type locality is given as "Chagres Camp, Las Cascades, Canal

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Zone" with the further data, "Taken: December 1, Larvae found in coconut shell". Miss Ludlow refers to eight males in her possession and also to additional specimens, including females, in the National Museum collection. At present, in the collection, there are four females bearing U. S. N. M. red type labels, unnumbered, and one of these bears, in addition, the label, in Miss Ludlow's handwriting, "*Trichoprosopon wilsoni*, female type, Ancon, May 9." There are also two male specimens with the printed label "Ancon, C. Z., Pan." and the handwritten label "Thru Col. W. H. Wilson." One of these is labeled "*Trichoprosopon wilsoni* Ludl. cotypes." Since none of these six specimens bears the data given in the original description, it is not considered possible to select any one as a lectotype. One of the four females has scales intermingled with the hairs on the clypeus and therefore should be referred to the new variety described in this paper.

The 928 specimens in the United States National Museum were collected in the following places, in the months indicated, where known:

Panama (460): Ancon, V; Barro Colorado Island, VII; Bohio, V; Colon; Corozal, X; Culebra, IX; Caldera Island, Porto Bello Bay, V; Camacho, VI; Cano Saddle, Gatun, V; Erwin Island, VIII; Fort Davis, VIII; Fort Sherman, V, VIII, IX; France Field, XII; Gatun, IX, X; Majagual, I, VII, X, XI, XII; Panama City, IX; Paraiso; Porto Bello, III, VIII; Tabernilla, IV, V, VII; Toro Point, I, VII, X; Upper Pequini River, III.

Peru (153): Iquitos, III-IV. Of these, 71 specimens have rather extensive white on the fore tarsi.

Venezuela (133): Caracas, VIII; Maracay, Aragua, VII, X; Ocumare de la Costa, III, IV, V, VII, VIII; Tio Julian, VIII; Villagos, VIII.

El Salvador (86): Izalco, VIII; Sonsonate, VIII.

Trinidad, B. W. I (33): Montserrat, VI.

Ecuador (16): Guayaquil; Machala; Naranjal.

Costa Rica (16): Higuito; Port Limon, IX; Siquirres.

Brazil (10): State of Rio de Janeiro, Distrito Federal, XI; Iguassu, V; Petropolis, IV, Terezopolis, IV; State of Para, Curralinho, III, Boa Vista, IX; State of Bahia, Belmonte, X; State of Goyaz, Anapolis, II, III.

Surinam (7): Paramaribo.

Colombia (4): Muzo.

Nicaragua (4): Bluefields.

Guatemala (3): Antigua, IX; Cacao Trece Aguas, IV;
Livingston, V.

Bolivia (2): Cachuela, Esperanze, Beni, III.

French Guiana (1): Cayenne.

Trichoprosopon (T.) digitatum var. *townsendi*,
new variety.

Trichoprosopon wilsoni Ludlow, 1918, Psyche 25: 66 (in part).

Trichoprosopon (Trichoprosopon) digitatum var. *mogilasium* (Dyar and Knab); Lane and Cerqueira, 1942, Arq. Zool. Est. São Paulo 3: 496. (Not *Joblotia mogilasium*. Dyar and Knab.)

This agrees with typical *digitatum* in all diagnostic characters save that there are violaceous scales mingled with the hairs on the sides of the clypeus. All specimens in the collection of the United States National Museum have the fore tarsus entirely dark, or with segment 4 partially whitened, the mid tarsus with segments 2 to 5 white, or segment 5 entirely or partially brown, and the hind tarsus with segments 4 and 5 white. There is a narrow white band at the base of the hind tibia, and faint ones at the bases of the mid tibia and hind tarsus.

Type material. — Holotype male (United States National Museum No. 56740); paratypes, 14 females, 3 males (United States National Museum).

The holotype and 11 paratypes were collected at Boa Vista, Rio Tapajos, Pará, Brazil, on July 20 and 22, by C. H. T. Townsend, in whose honor this variety is named. Four paratypes were reared by Dyar and Shannon at Porto Bello, Panama, August 13, 1923, along with a number of typical *digitatum*. One paratype is the supposed cotype of *Trichoprosopon wilsoni* Ludlow, from Ancon, Panama. One paratype was reared at Montserrat, Trinidad, June 20, 1905, by August Busck, along with many of the typical variety.

Trichoprosopon (T.) compressum Lutz,
typical variety.

Trichoprosopon compressum Lutz, 1905, Imp. Med. 13: 171.

Joblotia trichorhyses Dyar and Knab, 1907, Jour. N. Y. Ent. Soc. 15: 206.

This possesses the following combination of characters: Hairs, but no scales, on the clypeus; proboscis longer than the

fore femur: a few broad, appressed scales on the middle of the postnotum; no fringe of hair on the squamula of the wing; middle femur shorter than fore femur.

The cotype series of *Joblotia trichorries* was said to consist of 36 specimens bred from larvae in bamboo joints at Tabernilla, Canal Zone, Panama, by August Busck. Twenty-eight of these have been found, and 2 of these bore type labels No. 10847. On the remainder we have placed cotype labels, and hereby select as lectotype a female bearing the type label and the rearing number 30.2. The larval and pupal skins of this specimen are mounted on a slide. Six of these cotypes belong to the variety *mogilasium*.

The 38 specimens in the United States National Museum were collected in the following places, in the months indicated:

Panama (24): Tabernilla, Canal Zone, V.

Brazil (12): State of Rio de Janeiro, Distrito Federal, II, III, IX, XII; Petrópolis, V; State of Matto Grosso, Cuiabá, II.

Venezuela (2): Ocumare de la Costa, IV.

Trichoprosopon (T.) compressum
var. *mogilasium* (Dyar and Knab).

Joblotia mogilasia Dyar and Knab, 1907, Jour. N. Y. Ent. Soc. 15: 206.

This agrees with typical *compressum* in all diagnostic characters save that there are some scales intermingled with the hairs on the sides of the clypeus.

The cotype series of *Joblotia mogilasia* consists of three specimens bred from larvae in bamboo joints at Tabernilla, Canal Zone, Panama, by August Busck. These have been found, one of them bearing type label No. 10848. Cotype labels have been placed on the remainder and we hereby select as lectotype this first specimen, a female bearing rearing number 45.1. The larval and pupal skins of this specimen are mounted on a slide.

The 11 specimens in the United States National Museum were collected in the following places, in the months indicated:

Panama (10): Tabernilla, Canal Zone, V.

Venezuela (1): Ocumare de la Costa, IV.

*Trichoprosopon (Runchomyia*¹*) frontosus* (Theobald)

Runchomyia frontosa Theobald, 1903, Mon. Culic. 3: 319.

Lesticocampa lunata (Theobald); Dyar and Knab, 1906, Jour. N. Y. Ent. Soc. 14: 226 (not *Wyeomyia lunata* Theobald).

Lesticocampa rapax Dyar and Knab, 1906, Proc. Biol. Soc. Washington 19: 137. (New synonymy).

The cotype specimens of *Lesticocampa rapax* consisted of a male from Trinidad, B. W. I. with its larval and pupal skins, two females from São Paulo, Brazil, and one female from Patulue, Guatemala. The male is here selected as lectotype since this sex was more completely described and because the larva and pupa are known. This lectotype agrees with *T. frontosus* as redescribed by Lane and Cerqueira in coloration, male genitalia, larva, and pupa. The two cotypes from São Paulo appear to be *T. reversus* Lane and Cerqueira. The female from Guatemala is lost from the pin.

Trichoprosopon (Runchomyia) cerqueirai,
new species.

Trichoprosopon (Hyloconops) rapax (Dyar and Knab); Lane and Cerqueira, 1942, Arq. de Zool. do Est. de São Paulo 3: 517 (not *Lesticocampa rapax* Dyar and Knab).

This species has been described and figured so fully by Lane and Cerqueira that it has not seemed necessary to offer a detailed description here. The diagnostic characters of the female and of the male genitalia are as follows:

Female. — Vertex covered with silvery scales with blue reflection in certain lights; clypeus without scales; palpus about one-eighth as long as proboscis; proboscis nearly one-third longer than fore femur; posterior pronotal scales with golden silvery reflections; mesoscutal scales narrow, brown; scutellar scales broad, flat, with bright green-blue reflections; hind tarsus decidedly longer than combined length of femur and tibia; hind tibia with no pronounced spot of pale scales; tarsi entirely dark; abdominal colors separated by rounded incisions.

Male genitalia. — Ninth tergite with interlobar space, each lobe with 7 or 8 flattened hairs; tenth sternite with 2 teeth; basistyle more than twice as long as wide, without strongly developed setae internally or externo-basally; hairs of basal lobe

¹) The name *Runchomyia* Theobald 1903 is used rather than *Binotia* Blanchard May 15, 1904 or *Holyconops* Lutz 1904, because the writer considers *Runchomyia* not to be a homonym of *Rhynchomyia* Robineau-Desvoidy.

more than half as long as basistyle; dististyle longer than basistyle, the terminal spine less than one-fourth length of clasper.

Type material. — Holotype male (United States National Museum No. 57190); paratypes, 1 male, 4 females (United States National Museum).

The holotype and 1 paratype were collected at Rio de Janeiro, D. F., Brazil, February 1940, by L. Whitman; 1 paratype, same data except that the month is not given; 3 paratypes, collected at Magé, Rio de Janeiro, Brazil, July 1940, by R. C. Shannon. These specimens were all determined as *Trichoprosopon rapax* by Dr. Nelson Cerqueira, in whose honor this species is named.

Trichoprosopon (Runchomyia) lampropus
(Dyar and Knab).

Lesticocampa lampropus Dyar and Knab (2), 1913, in Howard, Dyar and Knab. Carnegie Inst. of Washington, Publ. 159, vol. 2, pl. 7, fig. 44.

Goeldia lampropus (Howard, Dyar, and Knab); Dyar, 1925, Insector Inscitiae Mens. 13: 129 (in part).

Trichoprosopon (Hyloconops) lampropus (Howard, Dyar, and Knab); Lane and Cerqueira, 1942, Arq. de Zool. do Est. de São Paulo 3: 527.

This species is represented in the National Museum collection by 15 specimens all reared from a fallen palm spathe on the Upper Pequini River, Panama, March 30, 1909, by A. H. Jennings. Four of these (1 female, 3 males) constitute the cotype series. The male genitalia of one of these was mounted and figured originally, and those of the two other males have now been mounted. The original figure is inaccurate in that the setae of the basal lobe are somewhat too short and the apical spine of the dististyle is considerably so. The latter is about one-fifth the length of the dististyle. The genitalia are correctly keyed by Lane and Cerqueira.

As lectotype for this species I herein designate the specimen bearing Dyar's determination label. This is not the specimen of which Dyar mounted the genitalia, but that specimen has lost most of its legs and the genitalia mount is very poor.

²⁾ This species has generally been credited to Howard, Dyar and Knab and the date given as 1915, the date of volume 3 of "The Mosquitoes of North and Central America and the West Indies." The name is validated, however, by the illustration of the male genitalia given in volume 2, which appeared February 24, 1913, and where the authorship is given as Dyar and Knab.

Dyar (1925) listed several other localities for this species, all apparently based upon single misdetermined specimens. I consider these to be as follows:

Caldera I., Panama, 1908 (A. H. Jennings). *T. digitatum* (Rondani).

Toro Pt., C. Z., Panama. July 22, 1922 (J. B. Shropshire). *T. longipes* (F.).

Culebra, C. Z., Panama. 1918 (L. H. Dunn). A female with the tarsi damaged, but the small portion of the fourth hind tarsal segment that remains is entirely white, eliminating *lampropus*.

Trichoprosopon (Vonplessenia) vonplesseni
(Dyar and Knab).

Lesticocampa vonplesseni Dyar and Knab, 1906, Proc. Biol. Soc. Washington 19: 137. *Goeldia vonplesseni* (Dyar and Knab); Dyar and Shannon, 1924, Jour. Washington Acad. Sci. 14: 483; Dyar, 1928, Carnegie Inst. Washington Publ. No. 387, p. 101. *Trichoprosopon (Vonplessenia) vonplesseni* (Dyar and Knab); Lane and Cerqueira, 1942, Arq. Zool. Est. São Paulo 3: 502.

The type series and only specimens before me of this species consist of four cotype females collected by Baron von Plessen on the upper Pastazza River, Ecuador. As originally stated, and as described in fuller detail by Dyar and Shannon (1924), the thorax of this species is unusually narrow and elongate. Because of this, it is very surprising, as Lane and Cerqueira (1942) have pointed out, that more has not been made of this feature. It is even more surprising that the two specimens from Venezuela, a male and a female, mentioned by Dyar (1928), were determined as *vonplesseni* by Dyar. These each have the thorax of normal shape, strikingly different from that of *vonplesseni*. They are both *T. pallidiventer* (Lutz). The rearing records given by Dyar are based upon these specimens, so that the breeding place and the male of this species remain unknown.
