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## New Species and Notes on North American Acalyprate Diptera

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Miscellaneous notes and descriptions in various families of North American acalyprate Diptera are presented here for public record, to clarify misidentifications and synonymy.

### ANTHOMYZIDAE: *Cyamops* Melander

The genus was reviewed by Sturtevant (1954, Proc. U. S. Nat. Mus. 103: 557-559), who referred it to the Anthomyzidae, described one new species, and noted the considerable color variation in *C. nebulosa* Melander. I take this occasion to note sexual dimorphism in color, and to describe a new species with entirely clear wings, undoubtedly confused in the past as a pale-winged variant of *nebulosa*. Sturtevant's key is modified slightly to include the new species.

#### Key to the Nearctic species of *Cyamops*

1. Fore tibia and tarsus chiefly black; one pair of scutellar bristles.....*C. imitata* Sturt.  
Fore tibia and tarsus yellow, distal segment of latter infuscated; two pairs of scutellar bristles.....2
2. Wing typically heavily browned on disk and a narrow apical margin, in palest examples with only faint traces of brown along the veins and midway in marginal cell; second vein distinctly sinuate, suddenly narrowing the marginal cell about midway, where discal infuscation begins; halter knob whitish yellow.....*C. nebulosa* Mel.

Wing membrane entirely clear; second vein almost straight, or weakly convex anteriorly considering its entire length, the marginal cell steadily narrowed from base to apex; halter knob predominantly brown to black in females, yellowish in males. . . . . *C. halterata* n. sp.

#### *Cyamops nebulosa* Melander

*Cyamops nebulosa* Melander, 1913, Jour. New York Ent. Soc. 21: 292 (Mass.).

The fortunate collecting of a good series of 33 specimens (18 males, 15 females) at Cranberry Glades, Pocahontas County, W. Va., July 16, 1955, gave opportunity to check sexual dimorphism. In addition to the broader face mentioned by Sturtevant, the females have the entire face and cheek black, palpi brown to black, and antennae infuscated on dorsal half. In the males, the face, anterior half of cheek, and palpus are bright yellow, and the antenna is predominantly so, only narrowly infuscated along the dorsal margin.

Typically the pleuron in both sexes is pollinose, although thinly so and hence shining. In a few specimens, the greater part of the mesopleuron is bare and polished, a character that is often of specific importance. However, I can find no other differences, and for the present at least I regard this as a variation. Three specimens of the 33 noted above, and five from scattered localities, are so marked.

#### *Cyamops halterata*, n. sp.

As described for *C. nebulosa* Melander, but differing in the characters noted in the key, and in having the palpi yellowish in both sexes, the central area of the front more deeply velvet black, and the orbital area flanking each antenna narrower and more conspicuously silvery than in *nebulosa*, and without a row of orbital hairs on its surface.

*Holotype* ♀, Washburn County, Wis., July 6, 1951 (R. H. Jones). Type No. 64220 in the U. S. National Museum. *Allotype*, same locality, Aug. 25, 1951 (Jones). Paratypes:

♂, 2♀♀, Washburn Co., Wis., July 25, 1950, July 10, 1953 (♀) (Jones) [Jones Colln.]; ♀, Wexford Co., Mich., July 17, 1948 (R. R. Dreisbach) [USNM]; ♀, Woods Hole, Mass., June 28, 1950 (A. H. Sturtevant) [USNM]; 3♀♀, Woods Hole, Mass., July 21, 1954 (M. R. Wheeler) and ♀, same locality, Aug. 29, 1950 (Sturtevant) [Wheeler Colln.].

Available material seems to indicate that the new species is more northern than *nebulosa*, but the series is obviously too limited to do more than suggest this as a tentative hypothesis.

#### MILICHIIDAE: *Stomosis* Melander

This genus was proposed in 1913 for *Desmometopa luteola* Coquillett from Arizona, and that species was subsequently identified from the wide range of Michigan, Indiana, Virginia, Texas, and Costa Rica. Recently the study of additional material and review of former identifications revealed that two species have been confused under the name *luteola*, and that the true *luteola* is a synonym of *innominata* (Will.).

The genus will thus contain the following five known species: *innominata* (Will.), *rufula* (Frey) from Brazil, the new Nearctic species, and two species from Victoria, Australia, *flavo-scutellata* Mall. and *vittata* Mall.

#### Key to the North American species of *Stomosis*

1. Epaulet black; legs yellow, the knees of mid and hind femora narrowly but distinctly black; conspicuous black stripe along upper margin of sternopleuron, enclosing base of sternopleural bristle (Arizona, St. Vincent, Honduras, Costa Rica, Panama) . . . . . *S. innominata* (Will.)  
Epaulet yellow; legs entirely yellow; upper margin of sternopleuron weakly and narrowly browned, the infuscation not enclosing base of sternopleural bristle (eastern United States) . . . . . *S. flava*, n. sp.

*Stomosis innominata* (Williston), n. comb.

*Agromyza innominata* Williston, 1896, Trans. Ent. Soc. London 1896: 443, pl. 14, fig. 158 (St. Vincent).

- Desmometopa luteola* Coquillett, 1902, Jour. New York Ent. Soc. 10: 188 (Williams, Ariz.). NEW SYNONYMY.  
*Stomosis luteola* (Coq.) Melander, 1913, Jour. New York Ent. Soc. 21: 242.

The correct family position of *innominata* and its possible synonymy with *Stomosis luteola* (Coq.) were first suggested by H. Oldroyd of the British Museum (Nat. Hist.) in correspondence with Kenneth Frick regarding the identity of Williston's *Agromyza*. Subsequently, Oldroyd kindly compared Costa Rican specimens of *luteola* with the type of *innominata* and found them to be the same. I have no material for clarifying the identity of the other Neotropical species, *S. rufula* (Frey), described from southern Brazil, but it is many years junior to Williston's name and thus does not affect the recognition of the latter.

In addition to the holotype of *luteola*, I have before me 34 specimens of both sexes from the following localities: ARIZONA: Sedona, Oak Creek Canyon, June 29, 1953 (W. W. Wirth). HONDURAS: La Ceiba, June 14, 1920 (F. J. Dyer). COSTA RICA: 22, Higuito, San Mateo (Pablo Schild). PANAMA: Arraijan, Oct. 7, 1952 (F. S. Blanton); Tocumen, Panama Province, Jan. 6, 1953 (Blanton); Piña, Jan. 31, 1954 (Blanton); 7, Almirante, Bocas del Toro, Jan. 1953 (Blanton) [all USNM].

I do not know the correct assignment of the Texas record of "*luteola*" cited by Melander (1913). The other records of *luteola* from eastern United States cited by Sabrosky (1953, Ent. News 64: 39) actually refer to *S. flava*, new species.

***Stomosis flava*, n. sp.**

- Stomosis luteola* (Coq.) Wirth, 1952, Proc. Ent. Soc. Wash. 54: 240 (Va.) [Misident.].  
*Stomosis luteola* (Coq.) Sabrosky, 1953, Ent. News 64: 39 (Eastern U. S.) [Misident.].

Very close to *S. luteola*, and agreeing with the detailed description for *Stomosis* published by Melander (1913), but char-

acterized as noted in the above key. The species is yellowish to testaceous except for the black hairs, bristles, arista, ocellar tubercle at least in part, central area of occiput, and proboscis at the geniculation; upper margin of sternopleuron narrowly and weakly browned.

*Holotype* ♂, Lafayette, IND., Aug. 21, 1916 (J. M. Aldrich). Type No. 64221, U. S. National Museum. *Allotype*, same locality and collector, August 7. Paratypes: ALABAMA: ♀, Auburn, 1952 (H. Cunningham). FLORIDA: ♀, Osceola National Forest, Columbia Co., Apr. 19, 1954 (H. V. Weems, Jr.). GEORGIA: ♂ (?), Savannah, Sept. 1, 1954, in privy trap (J. W. Kilpatrick). INDIANA: 2♂♂, Lafayette, Aug. 19, 24, 1916 (Aldrich). MICHIGAN: ♀, E. Lansing, July 31, 1941 (Bruce Wilson) [Sabrosky Colln.]; Monroe, July 4, 1940 (G. Steyskal); Detroit, June 16, 1940 (Steyskal); Grosse Isle, Wayne Co., July 5, 1948 (Steyskal). TENNESSEE: ♀, Maynardville, reared from puparia collected in cavity in beech tree, June-Aug., 1955 (W. E. Snow) (4 coll. 7-14, emerged 7-18; 3 coll. 8-16, emerged 8-24; 2 coll. 6-14, emerged 7-1 and 7-29). VIRGINIA: ♂, ♀, Alexandria, June 14, 1951, on flowers (W. W. Wirth); ♂, ♀, Holmes Run, Falls Church, April 15, 16, 1951, reared from tree crotch debris (Wirth). [Colln. USNM, except as noted.]

Genitalia of *innominata* and *flava* were compared, and showed only slight differences, which might or might not prove reliable in a long series of specimens.

The Maynardville, Tenn., series was reared from puparia found in a cavity near the base of a beech tree in a heavily shaded ravine. The cavity contained slightly moist woody material, and now and then a leaf or two. These rearings and that by Wirth at Falls Church suggest that this hitherto rather rare species should be looked for in tree hole debris.

PTOPHILIDAE

For the North American fauna, attention is called to a new synonym, and the record is clarified on a second Arctic species.

**Piophila (Allopiophila) arctica** Holmgren

- Piophila arctica* Holmgren, 1883, Ent. Tidskr. 4: 177 (Vaigach I., northern Russia, opposite Novaya Zemlya).
- P. aterrima* Becker, 1897, Ann. Mus. Zool. St. Petersburg. 1897: 402 (Novaya Zemlya). (Synonymy by Hennig, 1943, in Lindner's Fliegen Palaeark. Region, Lfg. 151, Fam. 40, p. 37, from comparison of types).
- P. aterrima* Becker; Malloch, 1934, Mem. Carnegie Mus. 12 (pt. 2, sect. 4): 22 (Southampton I., Hudson Bay, and Herschell, N.W.T., Canada).
- ? *Allopiophila* sp. near *A. aterrima* (Becker); Weber, 1949, Ent. News 60: 126; Weber, 1950, Trans. Amer. Ent. Soc. 76: 200 (Point Barrow, Alaska) (det. Sabrosky).
- Piophila (Allopiophila) arctica* Holmgren; Weber, 1954, Proc. Ent. Soc. Wash. 56: 89 (Point Barrow, Alaska; det. Sabrosky, correction of preceding).

I have examined the type series in the Naturhistoriska Riksmuseum in Stockholm, and compared Alaskan specimens with it. The species is probably circumpolar, but relatively seldom recorded. I have seen numerous specimens from Point Barrow, Alaska, collected June 22-Aug. 5, 1952 (Paul D. Hurd), July 8-30, 1953 (Hurd), and July 9, 1953 (R. I. Sailer), in addition to those collected earlier by N. A. Weber (see refs.). One example is at hand from Mould Bay, Prince Patrick I., Canada, July 28, 1949 (C. O. Handley) [USNM].

**Piophila (Allopiophila) fulviceps** Holmgren

- Piophila fulviceps* Holmgren, 1883, Ent. Tidskr. 4: 177 (Khabarov Bay, northern Russia, opposite Novaya Zemlya).
- P. fulviceps* Holmgren; Sack, 1923, Rept. Norweg. Exped. Nov. Zemlya, no. 15: 10 (Novaya Zemlya).
- Piophila borealis* Malloch, 1919, Rept. Canad. Arctic Exped. 1913-18, vol. 3 (pt. C): 84C (Camden Bay, Alaska).  
NEW SYNONYMY.

I have compared a Point Barrow specimen with the type of *fulviceps* in the Museum at Stockholm. In Alaska, the species is apparently less common than *arctica*, judging from the available material. I have seen a few specimens from Point Barrow,

Alaska, collected by Hurd and Sailer, and a lone specimen from Churchill, Manitoba, June 20, 1930 (O. Bryant) (det. Malloch as *P. borealis*).

Neither *fulviceps* nor *arctica* was included in Melander's review of the family in 1924 (Psyche 31: 78-86), and Malloch's publication of *borealis* in 1919 was overlooked. Fortunately, this has not resulted in any synonymy of Melander's species. The two species are easily distinguished by color, in addition to a number of other characters. *P. arctica* has an entirely black head and body whereas *fulviceps* has the front, outside of the upper orbits and ocellar triangle, and variably, the humeri, sides of mesonotum narrowly, and scutellum bright orange to reddish.

## SPHAEROCERIDAE (BORBORIDAE)

**Leptocera (Coproica) acutangula** (Zett.)

*Limosina acutangula* Zetterstedt, 1847, Diptera Scandinaviae 6: 499.

In 1948, I recorded this species from southern Georgia (Proc. Ent. Soc. Wash. 50: 85), apparently the first published record for North America. Subsequently A. R. Brooks, then at Ottawa, Canada, wrote me that he had seen a male of the species from Winnipeg, Manitoba, July 1942. Other specimens have since come to my attention from Grant and East Lansing, Mich. and Benton Co., Tenn. Recently several specimens were received from Irving Blake, collected in sweeping over alpine tundra at 13,100 ft. on Mt. Lincoln, Colo., Aug. 24, 1957. It now appears likely, especially from the last record, that the species is a normally Holarctic species long overlooked in North America.

Males have a peculiarly distinctive wing, with the discal cell apically acute and a fringe of about a dozen long hairs on the margin of the wing about at the end of the fifth vein, but females could easily have been confused with other species of the subgenus *Coproica* (*Coprophila* of Duda and Spuler). The females may be separated from other known North American species of this subgenus by the combination of second costal sector

(between veins one and two) longer than the third, and the third and fourth veins not divergent but subparallel.

**Leptocera (Limosina) ochripes (Meigen)**

*Borborus ochripes* Meigen, 1830, Syst. Besch. 6: 209.

This species has not hitherto been recorded from North America, as far as I am aware. Three specimens have turned up in material received for determination: East Lansing, Mich., May 20 and July 15, 1955; Midland Co., Mich., July 15, 1952 (R. R. Dreisbach) [USNM Colln.]. The specimens have been compared with European material determined by O. W. Richards.

The bright yellow front, face and cheeks are a striking characteristic in this predominantly dark and drab genus. The two other North American species of the subgenus *Limosina* Macquart (*Scotophilella* Duda) which have a yellow head can be separated from *ochripes* as follows:

*Key to the North American species of Leptocera*

1. Third section of costa (between tips of second and third veins) subequal to or barely shorter than second section; occiput predominantly blackish on upper half; all femora and tibiae yellow except for the infuscated distal half of fore tibia. . . . . *L. ochripes* (Mg.)
- Third section of costa obviously longer than second, almost twice or more than twice its length; head entirely yellow; legs not as above, the femora and tibiae with some dark markings. . . . . 2
2. Antenna yellow; legs yellow, the fore tibia and apex of fore femur black (Costa Rica) . . . . . *L. xanthocephala* Spuler
- Antenna dark brown; legs yellow with mid and hind femora black (N. J.) . . . . . *L. palliceps* (Johnson)