

NOTES AND DESCRIPTIONS OF TWO-WINGED FLIES OF  
THE FAMILY DOLICHOPODIDAE FROM ALASKA.

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*Of Buffalo, New York.*

The insects herein described or otherwise noted were collected in Alaska during 1921 by J. M. Aldrich, and the types of all the new species are in the National Museum.

**Genus DIAPHORUS Meigen.**

*Diaphorus* MEIGEN, Syst. Besch., vol. 4, p. 32, 1824.—SCHINER, Fauna Austriaca, vol. 1, p. 186, 1864.—LOEW, Smiths. Misc. Colls., No. 171, 1864, p. 156.—WHEELER, Psyche, vol. 5, pp. 359-360, 1890.—ALDRICH, Diptera of St. Vincent, Trans. Ent. Soc. London, 1896, part 3, pp. 320-324; Kansas univ. sci. Bull., 1902, vol. 1, pp. 85-87.—VANDUZEE, Bull. Buffalo Nat. Sci., 1915, vol. 11, pp. 161-194; Psyche, vol. 24, pp. 33-39, 1917.

**DIAPHORUS PALPIGER Wheeler.**

*Diaphorus palpiger* WHEELER, Psyche, vol. 5, p. 360, 1890.—VANDUZEE, Bull. Buff. Soc. Nat. Sci., vol. 11, p. 189, 1915.

Ten males and females were taken at Anchorage, Alaska, June 14, and July 19 and 21. Described from Wisconsin. Found all over North America.

**DIAPHORUS OCCIDENTALIS VanDuzee.**

*Diaphorus occidentalis* VANDUZEE, Bull. Buffalo Soc. Nat. Sci., vol. 11, p. 180, 1915.

One male taken at Fairbanks, Alaska, June 30. Described from Oregon; I took many of them in California and have seen specimens from New Mexico.

**DIAPHORUS GIBBOSUS VanDuzee.**

*Diaphorus gibbosus* VANDUZEE, Bull. Buffalo Soc. Nat. Sci., vol. 11, p. 173, 1915.

One male taken at Anchorage, Alaska, June 13. Described from the Northeastern United States and Ontario. I took several in California. The color of the abdomen varies, in some it is velvety black, while in others it is quite metallic. The thorax is always dark metallic green posteriorly.

**DIAPHORUS FUSCUS VanDuzee.**

*Diaphorus adustus* VANDUZEE, Bull. Buffalo Soc. Nat. Sci., vol. 11, p. 172, 1915, von Wiedemann.

*Diaphorus fuscus* VANDUZEE, Psyche, vol. 28, p. 122.

Ten specimens taken at Anchorage, Alaska, July 13-19. Described from Idaho and Nevada.

**DIAPHORUS BREVINERVIS, new species.**

*Male*.—Length, 2 mm. Face rather narrow with white pollen. Palpi black, small. Front green, dulled with white pollen. Antennae black; third joint small, somewhat conical and pointed at tip; arista apical; its first joint is not cylindrical but a little spindle shaped. Lateral and inferior orbital cilia white.

Thorax and abdomen dark green, dulled with gray pollen, hairs of the latter small, white. Hypopygium small, no bristles at tip; there appears to be a lamella-like brown appendage projecting backward, which has several small bristles on its disk.

Coxae, legs, and feet wholly black, knees narrowly yellowish. Fore tarsi as long as their tibiae, first joint as long as the remaining four taken together, pulvilli distinctly enlarged. Fore femora with several bristles below near the tip. Middle tibiae with one slender bristle near the base on anterior side; hind tibiae with several small bristles. Calypters, their cilia and the halteres yellow.

Wings tinged with brownish gray; third and fourth veins parallel, the latter ending in the apex of the wing, first vein reaching only about one-fourth the distance to the tip of second; last section of fifth vein nearly four times as long as the cross vein; anal angle prominent, making the wing of rather equal width; it is not at all wedge shaped.

*Female*.—Face and front a little wider; antennae with the third joint slightly smaller, arista apical; all tibiae yellow, still the hind pair are a little infuscated and black at tip; hind tarsi wholly black; first joint of fore and middle tarsi yellow. Cilia of the calypters whitish. Wings grayish, first vein reaching slightly further than in the male; last section of fifth vein as in the male.

Described from one male taken at Fairbanks, Alaska, July 1; the female was taken at Nenana, Alaska, June 28.

*Type*.—Male. Cat. No. 25955, U.S.N.M.

Although these were not taken together, I think there is no doubt of their belonging to the same species, the shape of the third antennal joint, general color, and venation being about alike in both specimens.

**Genus CAMPSICNEMUS Walker.**

*Campsicnemus* WALKER, Insects in Brit. Museum, Diptera, vol. 2, p. 193, 1851.—LOEW, Neue Beitr., vol. 5, p. 26, 1857; Smiths. Misc. Colls, No. 171, p. 193, 1864.—WHEELER, Proc. Calif., Acad. Sci., vol. 2, pp. 58–62, 1899.—VANDUZEE, Ent. News, vol. 28, pp. 124–126, 1917.—BECKER, Nova Acta, vol. 14, pt. 2, pp. 82–99, 1918.

**CAMPSICNEMUS CLAUDICANS Loew.**

*Campsicnemus claudicans* LOEW, Smiths. Misc. Colls, No. 171, p. 194.

Three females were taken; one at Anchorage, Alaska, June 11, one at Healy, June 26, and one at Port Althorp, June 5. This was described from Alaska. All the females I have seen have the legs more infuscated than Doctor Loew's description would indicate, and the fore coxae are almost wholly black.

## CAMPSICNEMUS DEGENER Wheeler.

*Campsicnemus degener* WHEELER, Proc. Calif. Acad. Sci., vol. 2, p. 58, 1899.

Two males taken at Fairbanks, Alaska, July 1. Described from California.

## CAMPSICNEMUS CALCARATUS, new species.

*Male*.—Length 2.75 mm. Face, palpi, proboscis, and front blackish; eyes touching on the middle of the face. Antennae (fig. 6) black; third joint small, about as long as wide, rounded at tip, arista dorsal, long and pointed. Orbital cilia minute, pale below.

Thorax and abdomen bronze brown, dulled with gray pollen; scutellum blue with two long marginal bristles. Hypopygium small, with no visible appendages, except one long and several short yellow hairs below.

Coxae, femora, tibiae and tarsi black, knees a little yellowish; fore coxae with a row of four slender bristles near the tip. Middle and hind femora each with a few black bristles below on apical half, those on the middle pair twice as long as those on the posterior ones. Middle tibiae slightly compressed, of nearly equal width throughout, a little arcuated and then recurved at tip (fig. 4), fringed with long hairs and bristles, which appear yellow in certain lights. Middle basitarsus curved, terminating in a horn-like point, the second joint being inserted on the first some distance before its tip. Second joint of hind tarsus longer than first. Halteres black.

Wings dark grayish, more brown in front; third and fourth veins quite widely separated, parallel, the fourth ending just back of the apex of the wing; anal angle prominent, the wing being of rather equal width.

Described from one male taken at Fairbanks, Alaska, July 1.

*Type*.—Male, Cat. No. 25956, U.S.N.M.

This is something like *thersites* Wheeler, but differs in having the tibiae of different form, and the legs and feet wholly black, while in *thersites* the legs and feet are largely yellow: the middle basitarsus is less bent in this form.

## CAMPSICNEMUS AMERICANUS, new species.

*Male*.—Length, 2 mm.; of wing, 2.5 mm. Face narrow, yellow above the suture which divides it near apical fourth, this short lower portion and the palpi being black and thickly covered with gray pollen. Front blackish, dull. First antennal joint yellow, second and third black; third nearly twice as long as wide (fig. 5), rounded at tip; arista dorsal, nearly as long as the height of its head, its tip feathered with longer white hairs, giving it the appearance of having the tip a little enlarged and white. Lower orbital cilia quite long, white.

Thorax and abdomen bronze green, sometimes almost black; scutellum bluish; hairs of the abdomen small and pale, bristles on hind margins of segments black; fifth segment considerably enlarged

below. Hypopygium small and without visible appendages, except a black central filament.

Fore coxae yellow, middle and hind ones wholly black; hairs on the coxae yellow. Fore femora a little thickened, yellow on lower half or more, upper part blackish, these colors sharply defined (fig. 3); their tibiae yellow with six erect, flattened, pale bristles above on basal half, and a row of long hairs on each side of the dorsal surface. Fore tarsi wholly black; first two joints short, about as long as wide, first with a stiff bristle above, second with a very long narrow appendage which is not much shorter than the whole tarsus and is fringed with very long hairs; third joint as long as fifth, of about equal thickness throughout and fringed above with about six very long hairs, below with shorter hairs; fourth joint about twice as long as wide, its tip prolonged into a blunt point below, it has three very long hairs above and several shorter hairs below; fifth very slender, with about six very long hairs above and shorter ones below; claws long, spreading out more than usual. Middle and hind femora yellow, knees blackish. Middle tibiae mostly black or brown, still a little yellow, especially near the base; posterior tibiae yellow with extreme base and tip brown, both with several slender bristles. Middle and hind tarsi wholly black. Calypters, their cilia, and the halteres yellow.

Wings dark grayish, more brown in front of fifth vein, especially along the veins; third and fourth veins parallel, the latter ending in the apex of the wing; last section of fifth vein a little longer than the cross vein; anal angle rather prominent.

*Female*.—Wings and body color about as in the male. Face wholly grayish; first antennal joint yellow below, black above; third joint smaller than in the male; arista plain; legs and feet normal; fore coxae black with their inner surface and tips yellow; fore femora black with broadly yellow tips; middle and hind femora yellow with their upper edge more or less blackened; all tibiae and tarsi appear black in certain lights, viewed at other angles the tibiae appear a little yellowish; cilia of the calypters black.

Described from three males and three females; two males and one female were taken at Healy, June 26; the others at Anchorage, June 15.

*Type*.—Male. Cat. No. 25957, U.S.N.M., from Healy.

In general appearance and the color of the antennae this is very much like the European species *compeditus* Loew, but that species has no flattened bristles on fore tibiae; the third joint of fore tarsi is somewhat different, and it has no long bristles on third and fourth joints, and the fifth joint is almost wholly bare. I have not seen the European species, but am judging from Doctor Becker's figure and description: the latter is rather meager.

**Genus ARGYRA Macquart.**

*Argyra* MACQUART. Hist. Nat. Diptera, vol. 1, p. 456, 1834.—LOEW, Smiths. Misc. Colls., No. 171, pp. 123-132, 1864.—BECKER, Nova Acta, vol. 104, pt. 2, pp. 61-74, 1918.

**ARGYRA CILIATA, new species.**

*Male*.—Length 5 mm. Face narrow, velvety black. Front black, somewhat shining. Palpi black with pale hairs and one slender black bristle. Proboscis black, more yellowish on the edge, its hairs pale. Antennae black, first joint nearly as long as third, with many stiff hairs above; third joint obtusely pointed at tip; arista subapical, a little longer than the antennae. Lower orbital cilia whitish, upper half of orbits nearly bare, except a few very minute black hairs at top.

Thorax shining green with a coppery line on each side of the acrostichal bristles; scutellum blue with four large marginal bristles; pleurae with silvery white pollen which extends over the humeri. Abdomen black with slight green reflections, thickly covered with silvery white pollen, second segment with a large yellow spot on each side; short hairs on the dorsum black, the long hairs on the sides yellow; first segment with a row of long black bristles on posterior margin and a cluster of stiff yellow hairs on each side. Hypopygium and its appendages black; the outer lamellae somewhat lanceolate, projecting downward, with many black bristles on posterior edge; there are two black bristles as long as the height of the hypopygium and several shorter ones on the posterior surface of the hypopygium; the inner appendages are a pair of sharp-pointed, slightly curved hornlike organs.

Coxae black with yellow tips; fore and middle pairs with partly black and partly yellow hairs; hind ones with one large and two small bristles on outer surface. Fore and middle femora blackened on basal half or more, still the yellow reaches nearly to the base on the front side of middle pair; they are ciliated below with long yellowish hairs, which are longer than their width; the anterior ones also have long black hair on posterior surface. Hind femora yellow with more than apical third black, and with a row of long, black, stiff hairs on lower outer edge, the longest of which are nearly twice as long as the width of the femora. Tibiae yellow. posterior pair with apical third black, their upper surface with long black hair; fore tibiae with several slender bristles on outer upper edge, the middle ones also with a few small scattered ones. All tarsi as long as their tibiae; anterior pair yellow, the last two joints blackened above, first joint as long as the remaining four taken together and having on entire lower edge a row of small black bristles, which are fully as long as the diameter of the joint. Middle tarsi with the first joint about as long as the remaining four taken together, infuscated from the second joint. Hind tarsi entirely

black, second joint about three-fourths as long as the first, which has longer hair on the outer surface. Calypters yellow with black tips and yellow cilia, still some of the hairs appear brown in certain lights. Halteres yellow, their stem darker.

Wings nearly hyaline, veins black; third vein bent backward; last section of fourth vein rather abruptly bent at its middle, parallel with third toward the tip, ending just back of the apex of the wing; last section of fifth vein nearly twice as long as the cross vein.

*Female*.—One female taken at Fairbanks July 4 seems to belong to the same species as the male described above. It has the face and front wide, covered with coarse yellowish gray pollen, the former with its suture near apical third, its lower edge rounded. Antennae with the third joint but little longer than wide; first joint as long as third, with many hairs above. Thorax almost black, with thick coarse yellowish gray pollen which conceals the ground color on much of the fore part of the dorsum; scutellum with four large marginal bristles and distinct hairs on its disk. Abdomen depressed, almost without yellow on its sides, coppery, darker on the sides; its hairs, including the long ones on the sides of first segment, black. Hairs of the coxae and legs largely black. Fore and middle femora black with their tips broadly yellow: they have a few small, pale hairs below, the anterior pair with rather long black hair on their posterior surface. Hind femora yellow with apical third black. All tibiae yellow, hind ones with apical sixth black. Fore and middle tarsi black from the tip of the first joint, which is as long as the last four joints taken together. Hind tarsi and the calypters as in the male. Wings grayish, veins black; venation as in the male, except that the third vein is not bent backward quite as much.

Described from one pair taken at Fairbanks, Alaska, July 2 and 4.

*Type*.—Male, Cat. No. 25958, U.S.N.M.

#### Genus PORPHYROPS Meigen.

*Porphyrops* MEIGEN, Syst. Besch., vol. 4, p. 45, 1824.—SCHINER, Fauna Austriaca, vol. 1, p. 196, 1862.—LOEW, Smiths. Misc. Colls., No. 171, pp. 142-146 and 340, 1864.—WHEELER, Proc. Calif. Acad. Sci., vol. 2, pp. 33-35, 1899.—BECKER, Nova Acta, vol. 103, pt. 3, pp. 208-229, 1918.—LUNDBECK, Diptera Danica, pt. 4, pp. 252-271, 1912.

#### PORPHYROPS ELEGANTULA Meigen.

*Porphyrops elegantula* MEIGEN, Syst. Besch., vol. 4, p. 51, 1824.—LUNDBECK, Diptera Danica, pt. 4, p. 260, 1912.

One female taken at Fairbanks, Alaska, June 30. Described from Europe. I have seen several males and females taken by Prof. James S. Hine in Alaska; it was from his material that I was able to determine the species.

**PORPHYROPS CRASSIPES** Meigen.

*Porphyrops crassipes* MEIGEN, Syst. Besch., vol. 4, p. 50, 1824.

*Porphyrops fulvipes* MEIGEN, Syst. Besch., vol. 7, p. 151, 1838 (female).

*Porphyrops crassipes* LUNDBECK, Diptera Danica, pt. 4, p. 264, 1912.

Four males and six females were taken by Doctor Aldrich in Alaska at the following places: Skagway, June 3; Valdez, June 8; Nenana, June 22; Fairbanks, July 1, 2. Described from Europe.

**PORPHYROPS DISCOLOR** Zetterstedt.

*Rhaphium discolor* ZETTERSTEDT, Insecta Lapponica, p. 704.8, 1838 (female).

*Rhaphium consobrinum* ZETTERSTEDT, Diptera Scan., vol. 2, p. 471, 1843 (male and female).

*Porphyrops discolor* ZETTERSTEDT, Becker, Nova Acta, vol. 103, pt. 3, p. 217, 1912.—COQUILLET *Porphyrops consobrina* Zetterstedt, Harriman Alaska Exp., Insects, vol. 9, p. 40, 1899.

Seven males and five females were taken in Alaska at the following places: Skagway, June 4; Healy, June 23; Nenana, June 28; and Anchorage, June 10 and July 1. Described from Lapland.

According to Doctor Becker the female of this species was described as *discolor* in 1838, and both sexes were described in 1843 under the name of *consobrina*. Under this last name Mr. Coquillett reported the species as occurring in Alaska in 1899.

**PORPHYROPS TERMINALIS**, new species.

*Male*.—Length, 4.5 mm. Face very narrow, black. Palpi and proboscis black. Front usually steel blue, sometimes green, not very bright. Antenna (fig. 8) black; third joint scarcely more than half as long as the face; arista nearly twice as long as third joint. Hairs of the eyes brown. Beard black, abundant.

Thorax green, rather dull, its posterior slope and the scutellum usually steel blue, the latter with two pair of marginal bristles, the outer pair half as long as the median ones. Abdomen green, the last two segments usually more purple; hairs on its dorsum black, those on the basal edge of first segment and the long ones on the sides of first and second segments yellowish; venter black, its hairs white. Hypopygium (fig. 11) of moderate size, black; its outer lamellae long, tapering, ribbonlike, brown, fringed on the edge and one side with long pale hairs; inner appendages a little paddle-shaped, testaceous, with four minute spines near the middle on one edge.

Coxae wholly black, anterior pair shining on posterior surface, the anterior half dull with black hairs, those along the outer edge of anterior side pale; middle and hind coxae with pale hairs, the former with a black thorn at tip. All femora black, fore and middle ones with yellow tips; outer surface of fore femora with long black hair above and a row of slender black bristles below, there are a few long pale hairs between these bristles and the black hair above. Middle femora with a few pale hairs at base below and three long, slender, black preapical bristles on posterior side and one on anterior side;

hind ones with one very small preapical bristle, their hair short, except a few longer hairs at base above. Fore and middle tibiae brown at base, apical half yellow, their bristles long, middle ones with a row of four bristles on lower anterior edge. Hind tibiae black at base and tip, still mostly yellowish, sometimes only the extreme base infuscated, their bristles rather strong. Fore tarsi a little longer than their tibiae; first joint a little enlarged at tip and extending beyond the base of second joint, which is slightly compressed, except at tip, of about equal width, three-fourths as long as first; fourth and fifth of about equal length and taken together about as long as third. Middle tarsi black from the tip of the first joint, still sometimes the second is yellowish at base. Hind tarsi wholly black, with the first and second joints of about equal length. Calypters, their cilia, and the halteres pale yellow.

Wings grayish, veins brown or yellowish; third vein bent backward, at tip it is a little recurved forward; last section of fourth vein bent beyond its middle, nearly parallel with third toward its tip, ending in the apex of the wing; last section of fifth vein nearly one and one-third times as long as the cross-vein.

*Female*.—Face broad, its pollen coarse and yellowish; suture near the center of its length, lower portion with oral edge rounded, and with the metallic green ground color showing through the pollen. Antennate small, third joint not longer than wide. Beard white, rather abundant on the sides. Thorax with the posterior part of the dorsum more or less coppery red. Hairs on the dorsum of the abdomen mostly whitish, those on the sides of first and second segments moderately long, white. Fore coxae with white hairs. Fore femora black or green with their tips broadly yellow, and sometimes yellow below, their posterior surface with rather long white hair and several small black bristles near the tip. Middle and hind femora yellow, the latter more or less blackened at tip, at least above, and with one small preapical bristle; middle ones with two or three preapical bristles on each side. All tibiae yellow; posterior ones blackened a little at base and tip; middle ones with two bristles on anterior surface. Fore tarsi as long as their tibiae, darkened toward their tip, last joint black, second joint a little more than half as long as first, last three joints of about equal length, still the fourth a little the shortest. Middle tarsi blackened from the tip of the first joint, which is as long as the three following taken together; fourth shorter than fifth. Hind tarsi wholly black, first and second joints of equal length.

Described from seven males and seven females. Five males were taken at Fairbanks, July 1-4; one at Nenana, June 28, and one at Anchorage, June 15; five females were taken at Anchorage, June 13-28; one at Skagway, June 4, and one at Nenana, June 28.

*Type*.—Male, Cat. No. 25959, U.S.N.M.

Type and allotype were taken at Nenana, Alaska, June 28, 1921.



This species has the appendages of the hypopygium very much like those of *elegantula* Meigen, but is smaller, duller, the legs are much more blackened and the hair on fore coxae is mostly black in this form while in *elegantula* it is whitish; they also differ in other points.

**PORPHYROPS BOREALIS, new species.**

This form has the head parts, the outer hypopygial lamellae and general color as in *terminalis*, new species; it differs in having the hair on the fore coxae and posterior surface of the fore femora wholly black and longer; middle tibiae wholly yellow; the hind tibiae wholly black on its lower edge, and the inner appendages of the hypopygium very small with a short hair (almost spine-like) at tip.

*Type and paratype.*—Males, Cat. No. 26340, U.S.N.M. There are additional paratypes in a series from Savonoski, Naknek Lake, Alaska, collected in June and July by Prof. James S. Hine; I have given a fuller description of this species in a paper on his collections, not yet published.

**PORPHYROPS NUDUS, new species.**

*Male.*—Length 4–4.75 mm.; of wing 3.25–4 mm. Face very narrow, black. Front green. Palpi black with brownish yellow hairs. Antennae black; third joint a little longer than the two basal ones taken together; arista a little longer than the antenna. Beard long and abundant, brown or black.

Thorax and scutellum bright green or blue-green, scutellum with two pairs of marginal bristles, the outer pair half as long as the median ones. Abdomen bright green, its hairs mostly pale, they are long on the sides of first three segments; there are no black bristles in the hind margin of first segment except two very small ones on each side nearly on the dorsum. Hypopygium black, upper portion dull and covered with pale hairs, lower part more shining, deeply emarginate on lower edge so as to form a short flap on each side of the lamellae; outer lamellae (fig. 9) yellowish brown, wide just above the stem, forked, somewhat U-shaped, with one arm only about half as long as the other; inner appendages are a pair of yellowish, nearly straight still a little curved, slender, finger-like organs, they are about as long as the width of the lamella just before the fork, and seem to have minute hairs on the edges.

Coxae black; anterior pair with long black hair, those at base on outer corner appear more yellowish red in certain lights; middle and hind ones with a few white hairs, the former with a black thorn at tip. Femora black with extreme tips yellowish; anterior pair with pale hairs on posterior surface; middle ones with a few long pale hairs at base below and three preapical bristles on posterior side and one in front; posterior pair with one small preapical bristle, their hair rather short. Fore tibiae yellow, blackened on upper edge.

with two rows of large bristles; middle pair yellow, their base brown, usually distinctly so for one-third their length, they have one bristle below and two rows of long ones above. Hind tibiae black with upper edge a little yellowish. Fore tarsi yellow, darkened at tip; first two joints of nearly equal length, covered with minute yellow hairs, both with their tips enlarged. Middle tarsi yellowish, tips of the joints dark. Hind tarsi black with first and second joints of nearly equal length. Calypters, their cilia and the halteres pale yellow.

Wings nearly hyaline; third vein gently bent backward at tip; last section of fourth vein bent near its middle, parallel with third at tip; last section of fifth vein scarcely more than one and a half times as long as the cross-vein.

*Female*.—What I take to be the female of this species has its face wide, the pollen of the face white, sometimes a little yellowish on upper portion, the suture just below the center, its oral edge a little pointed in the middle. Front green with considerable white pollen. Antennae small, about as long as wide; arista about three times as long as the antenna. Beard white, rather abundant on the sides. Abdomen with black hairs on the dorsum, those on the sides pale, long on the first two segments. Thorax with a spot of white pollen back of the humeri. Fore coxae with pale hair. Femora black with yellow tips, anterior ones with rather long pale hair on posterior surface; middle ones with a few pale hairs at base below, three pre-apical bristles on posterior and one on anterior surface; hind femora with the one preapical bristle. Tibiae yellow; hind ones slightly brownish at tip; middle tibiae with a row of three long bristles on lower anterior edge. Fore tarsi mostly yellowish, middle ones more brownish almost to their base, hind ones wholly black with their first and second joints of equal length. Wings about as in the male, except that they are dark grayish.

Described from 5 males and 16 males taken at Fairbanks, July 1-4.

*Type*.—Male, Cat. No. 25960, U.S.N.M.

**PORPHYROPS ALBIBARBA, new species.**

*Male*.—Length, 4 mm.; of wing the same. Face narrow, silvery white. Palpi velvety black, edged with white pollen, and with a few small black hairs. Front steel-blue, dull. Antennae black (fig. 7); third joint about as long as the face, rather slender toward the tip; arista slightly more than half as long as the antenna, its first joint short. The long black orbital cilia reaching down to upper fourth of eye height, below these the long, dense beard is sordid white.

Thorax blue-green, dulled with gray pollen; dorsum with the usual brown stripe on each side of the acrostichal bristles; scutellum with one pair of long bristles, two pair of small ones between them, and

three pair of long hairs basally on its margin, and two small black hairs on the disk; propleurae with long white hairs. Abdomen metallic green, dulled with gray pollen, hairs on the dorsum black, those on the sides of the first three segments and extending onto the dorsum of first are yellowish and on the lower edge long and dense. Hypopygium (fig. 10) black, rather small, upper half dull, lower part shining; outer lamellae somewhat triangular, black, fringed with long pale hairs, they are scarcely as long as the height of the hypopygium; inner appendages long and shining black, pointed, extending forward under the abdomen; they have several delicate hairs on upper surface.

Coxae, legs and feet wholly black, except extreme tip of fore tibia, apical half of middle tibia and base of fore and middle basitarsi, which are yellowish. All coxae with long whitish hair, that on the anterior pair very dense; middle pair with a thorn of black bristles at tip. All femora fringed with long whitish hairs on lower posterior surface, those on middle pair not so numerous but on the others very abundant; posterior ones also have besides those already mentioned a few pale hairs on lower outer edge ending with one or two black ones and with a small black preapical bristle. Tibiae with numerous bristles on upper surface, those on posterior ones more scattering. Fore tarsi as long as their tibiae, first joint as long as the three following taken together, second, third, and fourth each a little shorter than the preceding one; fourth, and fifth of about equal length: fore basitarsus considerably enlarged below at tip. Hind tarsi stout, scarcely as long as their tibiae, first and second joints of equal length. Calypters and stem of halteres brownish. cilia of the former whitish, knobs of halteres yellow.

Wings tinged with brownish gray, darkest in the middle of the cells, a hyaline spot surrounds the cross-vein and extending somewhat along the upper edge of the fifth vein: last section of fourth vein bent at its middle; third vein bent at about the same distance from its tip so as to approach fourth and about parallel with it near their tips, fourth ending in the apex of the wing; first vein reaching about half the distance to the cross vein; last section of fifth vein twice as long as the cross vein.

Described from one male taken at Anchorage, July 21.

*Type*.—Male, Cat. no. 25961, U.S.N.M.

#### PORPHYROPS, species.

Thirteen females were taken which I am not able to determine.

#### Genus XIPHANDRIUM Loew.

*Xiphandrium* LOEW, Neue Beitr., vol. 5, p. 36, 1857.—BECKER, Zoologisch-Botanische Gesellschaft, Wien, vol. 3, Heft 1, p. 150, 1921.—VANDUZEE, Trans. Amer. Ent. Soc., vol. 48, pp. 79, 1922.

**XIPHANDRIUM FEMORATUM** VanDuzee.

*Xiphandrium femoratum* VANDUZEE, Trans. Amer. Ent. Soc., vol. 48, p. 81, 1922.

Twenty-two specimens, both sexes, were taken by Doctor Aldrich in Alaska at the following places: Skagway, June 4; Anchorage, June 10-13; Healy, June 21; and Fairbanks, July 1. This is part of the material from which the species was described, the other specimens were taken in Nevada and Alaska. Type from Wells, Nevada.

*Paratypes*.—Male and female, Cat. No. 26341, U.S.N.M.

**XIPHANDRIUM FEMORATUM, variety POLLEX** VanDuzee.

*Xiphandrium femoratum*, var. *pollex* VANDUZEE, Trans. Amer. Ent. Soc., vol. 48, p. 82, 1922.

One male was taken at Skagway, Alaska, June 4. This is part of the type material.

*Paratype*.—Male, Cat. No. 26342, U.S.N.M.

**XIPHANDRIUM ALDRICHI** VanDuzee.

*Xiphandrium aldrichi* VANDUZEE, Trans. Amer. Ent. Soc., vol. 48, p. 86, 1922.

Described from two males and one female taken by Doctor Aldrich at Healy, Alaska, June 24.

*Type*.—Male, Cat. No. 26393, U.S.N.M.

**Genus SYMPYCNUM** Loew.

*Sympycnus* LOEW, Neue Beitr., vol. 5, p. 24, 1857; Smiths. Misc. Colls., No. 171, pp. 185-191, 1864.—ALDRICH, Kansas Univ. Bull., vol. 1, pp. 83-84, 1902; Biologia Cent. Amer. Diptera, vol. 1, p. 344, 1901; Trans. Ent. Soc. London, 1896, pt. 3, p. 336.—WHEELER, Proc. Calif. Acad. Sci., vol. 2, pp. 47-51, 1899.—VANDUZEE, Ent. News, vol. 24, pp. 269-272, 1913; Can. Ent., vol. 49, pp. 337-339, 1917.

**SYMPYCNUM CUPRINUS** Wheeler.

*Sympycnus cuprinus* WHEELER, Proc. Calif. Acad. Sci., vol. 2, p. 50, 1899.—COQUILLET, Proc. Wash. Acad. Sci., vol. 2, p. 426, 1900.

Fourteen specimens were taken by Doctor Aldrich in Alaska. This species was described from California; it was reported from Alaska by Coquillett in 1900.

**SYMPYCNUM, species.**

One female representing a new species was taken.

**Genus NOTHOSYMPYCNUM** Wheeler.

*Nothosympycnus* WHEELER, Proc. Calif. Acad. Sci., vol. 2, pp. 51-56, 1899.—VANDUZEE, Can. Ent., vol. 49, pp. 140 and 141, 1917.

**NOTHOSYMPYCNUM CILIFEMORATUS, new species.**

*Male*.—Length 3 mm. Face narrow below, covered with white pollen. Front blackish, dulled with brown or grayish pollen, sometimes dark blue near the orbits. Antennae (fig. 2) black; third

joint rounded at tip; arista stout, nearly as long as the thorax, tipped with a large roundish lamella. Lower orbital cilia pale.

Thorax and scutellum bronze brown with more or less blue reflections; dorsum dulled with brown pollen; pleurae with white pollen. Abdomen metallic green, sometimes almost black, sides of second segment and the venter more or less yellow; hair on the abdomen and bristles on sides of first segment yellow. Hypopygium rather large, black with small black appendages and two slender filaments extending backward (probably the penis and its sheath).

All coxae yellow, middle pair darkened on outer surface, hairs on fore coxae yellow; the slender erect bristle on hind coxa black, still it appears yellow in certain lights. All femora yellow, the apical half of posterior pair more or less black; middle and hind femora each with a small preapical bristle, the latter with long yellow hairs on the lower edge of both inner and outer surface, which are longer and more brown apically. Fore and middle tibiae yellow, slender, with yellow hairs, middle ones with two slender bristles on upper anterior edge. Hind tibiae blackish, sometimes slightly yellow at base, their hairs yellow, bristles black. Fore tarsi (fig. 1) yellow, black from the tip of second joint; first joint short, about as long as wide; second longer than the remaining three taken together; third and fifth of nearly equal length, fourth distinctly longer and a little curved. Middle tarsi black from the tip of first joint, which is as long as the three following taken together. Second and third of nearly equal length, each with several long hairs, fourth slightly shorter than third, fifth half as long as third. Hind tarsi wholly black, second joint slightly longer than first. Calyp-  
pters, their cilia and the halteres yellow.

Wings grayish hyaline, tinged with brown in front of fourth vein; third and fourth veins very slightly convergent at their tips, fourth ending just before the tip of the wing; wing narrowed at base from a point nearly opposite the tip of the first vein.

*Female*.—Face wide, its pollen gray; antennae small, arista plain; fore tarsi blackened from the tip of the first joint, which is nearly as long as the remaining four taken together, last four joints of slightly decreasing length; hind femora more or less infuscated at tip; fore femora slightly infuscated at base; middle and hind coxae blackened. Wings not narrowed at base.

Described from 13 males and 14 females. Eleven males and 11 females were taken at Anchorage, Alaska, June 15 to July 21; three females at Seward, Alaska, July 24, these were taken by Dr. J. M. Aldrich; two males and two females were taken at Grant, Colorado, August 19, by E. C. Jackson.

*Type*.—Male, Cat. No. 25962, U.S.N.M., from Anchorage.

Genus **MEDETERUS** Fischer.

*Medeterus* FISCHER VON WALDHEIM, Notice sur une Mouche carnivore, p. 10, Moscow, 1819.—MEIGEN, Syst. Besch., vol. 4, p. 59, 1824.—LOEW, Smiths. Misc. Colls., No. 171, 1864, pp. 218-220.—KOWARZ, Verh. Zool-Bot. Ges., vol. 27, 1877, pp. 39-76.—WHEELER, Proc. Calif. Acad. Sci., vol. 2, pp. 20-29, 1899.—ALDRICH, Kansas Univ. Sci. Bull., vol. 1, p. 91, 1902.—VAN DUZEE, Proc. Calif. Acad. Sci., vol. 9, pp. 257-270, 1919.

**MEDETERUS VIDUUS** Wheeler.

*Medeterus viduus* WHEELER, Proc. Calif. Acad. Sci., vol. 2, p. 24, 1899.

This was described from the State of Washington. A female taken at Healy, Alaska, July 7, no doubt is this species. It differs but little from the description of the single male specimen that Wheeler had. The long yellow hair on the hind tibiae mentioned by him are not found in this female, but there are short yellow hairs on the whole inner surface of the hind tibiae and tarsi. The last section of the fifth vein is only a little longer than the cross-vein, not one and a half times as long. Otherwise it agrees with Doctor Wheeler's description. I think there is no doubt of the determination.

**MEDETERUS DISTINCTUS** Van Duzee.

*Medeterus distinctus* VAN DUZEE, Proc. Calif. Acad. Sci., vol. 9, p. 266, 1919.

Two males and six females were taken at Anchorage, Alaska, June 10; one male at Seward, Alaska, June 25, and three males at Healy, Alaska, June 26. I can not separate these from our specimens taken in New York and New Jersey, one of which is the type of the species; the eastern specimens are females.

The male has the hypopygium pedunculate, rather long but not large, all its appendages are yellow, slender, and rather long; there are more or less black hairs on the dorsum of the abdomen. These males are from 2-3 mm. in length; the vittae on the thorax are less distinct than in the type, especially in the males.

Genus **THRYPTICUS** Gerstaecker.

*Thrypticus* GERSTAECKER, Stett. Ent. Zeit., vol. 25, p. 43, 1864.

*Aphantotimus* WHEELER, Psyche, vol. 5, p. 375, 1890.

*Xanthotricha* ALDRICH, Trans. Ent. Soc. London, 1896, pt. 3, pp. 339-340.

*Thrypticus* GERSTAECKER, Aldrich, Ent. News, vol. 9, p. 532, 1898; *Biologia Cent. Amer.*, Diptera, vol. 1, p. 349, 1901.—WHEELER, Proc. Calif. Acad. Sci., vol. 2, p. 30, 1899.—VAN DUZEE, Psyche, vol. 22, pp. 84-87, 1915; Psyche, vol. 28, pp. 124-126, 1921.

**THRYPTICUS FRATERCULUS** Wheeler.

*Aphantotimus fraterculus* WHEELER, Psyche, vol. 5, p. 379, 1890.

*Thrypticus fraterculus* WHEELER, Proc. Calif. Acad. Sci., vol. 2, p. 31, 1899.—ALDRICH, *Biologia Cent. Amer.*, Diptera, vol. 1, p. 349, 1901.—VAN DUZEE, Psyche, vol. 22, p. 84, 1915.

One female was taken at Fairbanks July 3. Described from Wisconsin; reported as taken in Ontario, the United States, and Mexico.

Genus **HYDROPHORUS** Fallén.

*Hydrophorus* FALLÉN, Diptera Succine, Dolichopodes, 1823, p. 2.—LOEW, Smiths. Misc. Colls., No. 171, p. 211.—ALDRICH, Psyche, vol. 17, pp. 45-73, 1 pl., 1911.

**HYDROPHORUS INNOTATUS** Loew.

*Hydrophorus innotatus* LOEW, Smiths. Misc. Colls., No. 171, p. 212, 1864.—MALLOCH, Rept. Canadian Arctic Exped., vol. 3, p. 50c, 1920.—ALDRICH, Psyche, vol. 18, p. 66, 1911; Proc. U. S. Nat. Mus., vol. 61, p. 17, 1922.

Four examples were taken at the following locations: Anchorage, Alaska, June 11; Seward, Alaska, July 24; Nenana, Alaska, June 28; Fairbanks, Alaska, June 30. Described from Sitka, Alaska. Since reported from several places in Alaska and from Washington and Oregon.

**HYDROPHORUS CHRYSOLOGUS** Walker.

*Medeterus chrysologus* WALKER, List, vol. 3, p. 655, 1849.—LOEW, Smiths. Misc. Colls., No. 171, pp. 215 and 309, 1864.—WHEELER, Proc. Calif. Acad. Sci., vol. 2, p. 63, 1899.—ALDRICH, Psyche, vol. 18, p. 62, 1911.

One female was taken at Healy, Alaska, June 26. This was described from Martin Falls, Canada; has been reported from several places in the Eastern States.

**HYDROPHORUS MINIMUS**, new species.

*Male*.—Length, 2.5 mm.: of wing, 3 mm. Face, blue-green on upper portion, suture near apical third, the lower part opaque with silvery white pollen, which is thin above the suture. Front, green with considerable brown pollen; occiput, green with the orbits white pollinose. Cheeks quite wide, truncate at lower edge. Antennae black; third joint small, about as long as wide, obtusely pointed at tip. Palpi black, covered with gray pollen. The short black orbital cilia not reaching the middle of the eye. Beard yellowish white, scanty.

Thorax brown, nearly opaque, still with some purple reflections; scutellum more purple, with four marginal bristles; prothorax with several yellow bristle-like hairs above fore coxae, without a black bristle. Abdomen metallic green, rather dull, hairs black on the dorsum, partly yellow, but short on the sides, bristles on the hind margin of last segment yellowish. Hypopygium small, its appendages but little exposed, fourth ventral segment extending downward and cut into on hind margin.

Fore coxae greenish with short pale hairs and one small black hair-like bristle at upper outer corner, without black bristles at tip. All femora and tibiae metallic green. Fore femora (fig. 12) a little thickened at base, with pale hairs below and a cluster of black spines near the base on lower front edge. Middle and hind tarsi blackish, plain, about as long as their tibiae, first joint longer than second; fourth and fifth joints of middle pair of nearly equal length; hind

tarsi with the fourth joint shorter than fifth. Calypters and their cilia yellow. Halteres brown, their stem paler.

Wings grayish, tinged with brownish in front of fourth vein and along the cross-vein, without spots on fourth vein or cross-vein; third vein bent backward a little at tip; last section of fourth vein straight, ending back of the apex of the wing; last section of fifth vein a little more than half as long as the cross-vein.

Described from one male taken at Fairbanks, Alaska, July 1.

*Type*.—Male, Cat. No. 25963, U.S.N.M.

#### Genus **HERCOSTOMUS** Loew.

*Hercostomus* LOEW, Neue Beitr., vol. 5, p. 9, 1857; vol. 8, p. 42, 1861; Smiths. Misc. Colls., No. 171, p. 116, 1864.—WHEELER, Proc. Calif. Acad. Sci., vol. 2, p. 8, 1899.—MELANDER, Canadian Ent., vol. 32, p. 138, 1900.

#### **HERCOSTOMUS UNICOLOR** Loew.

*Hercostomus unicolor* LOEW, Smiths. Misc. Colls., No. 171, p. 117, 1864.—MELANDER, Canadian Ent., vol. 32, p. 138, 1900.

*Gymnopternus poenitens* WHEELER, Psyche, vol. 5, p. 336, 1890.

One female was taken at Healy, Alaska, June 27. Described from the "Hudson Bay Terr." It is found all over Canada and the northern part of the United States.

#### Genus **PELASTONEURUS** Loew.

*Pelastoneurus* LOEW, Neue Beitr., vol. 8, p. 36, 1861; Smiths. Misc. Colls., No. 171, pp. 103-109; 337-339, 1864.—WHEELER, Proc. Calif. Acad. Sci., vol. 2, pp. 11-17, 1899.—ALDRICH, Biologia Cent. Amer., Diptera, vol. 1, pp. 336-339; Trans. Amer. Ent. Soc., vol. 30, pp. 273-278, 1894.

#### **PELASTONEURUS VAGANS** Loew.

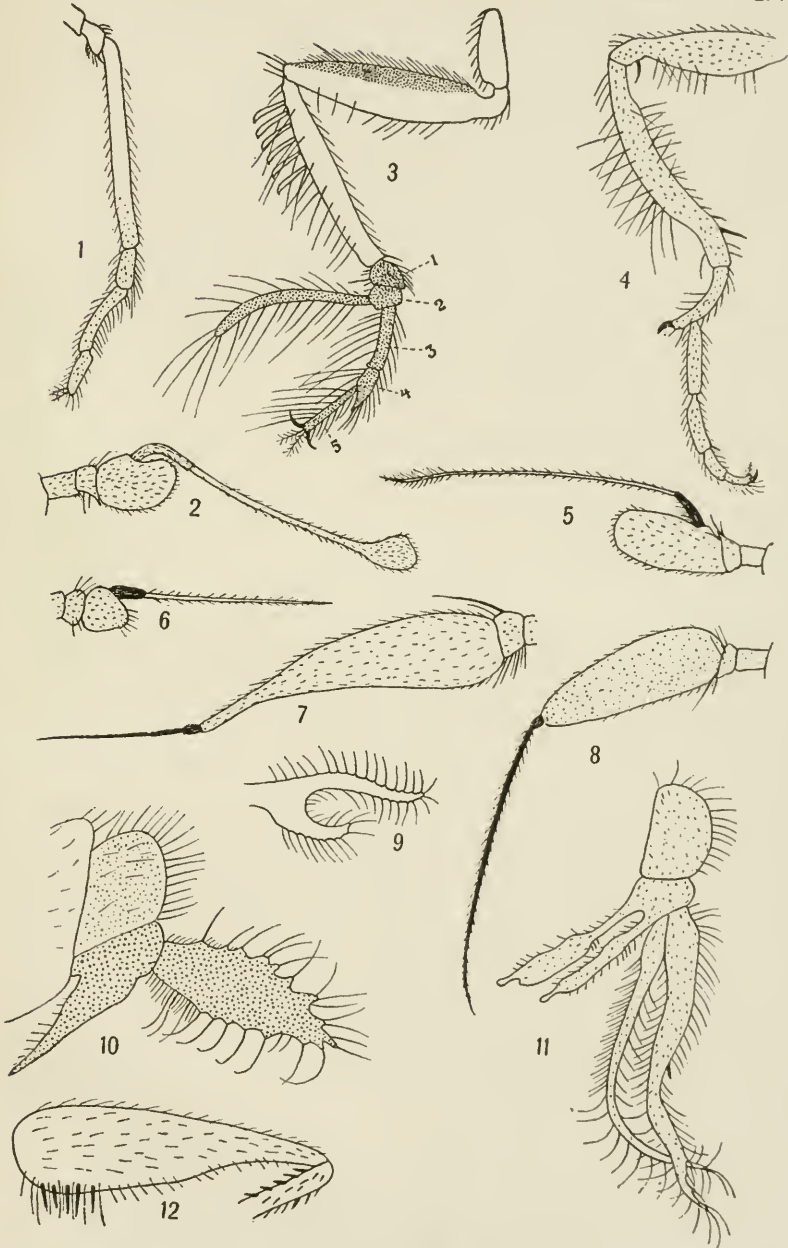
*Pelastoneurus vagans* LOEW, Neue Beitr., vol. 8, p. 39, 1861; Smiths. Misc. Colls., No. 171, p. 107, 1864.

One male was taken at Anchorage, Alaska, July 19. Described from the "Middle States"; found all over the United States, Canada, and Mexico.

#### EXPLANATION OF PLATE.

- FIG. 1. *Nothosympycenus cilifemoratus*, new species, fore tarsus of male.  
 2. Antenna of same.  
 3. *Campsicnemus americanus*, new species, fore leg of male.  
 4. *Campsicnemus calcaratus*, new species, middle leg of male.  
 5. *Campsicnemus americanus*, new species, antenna of male.  
 6. *Campsicnemus calcaratus*, new species, antenna of male.  
 7. *Porphyrops albibarba*, new species, antenna of male.  
 8. *Porphyrops terminalis*, new species, antenna of male.  
 9. *Porphyrops nudus*, new species, outer hypopyginal lamella of male.  
 10. *Porphyrops albibarba*, new species, hypopygium of male.  
 11. *Porphyrops terminalis*, new species, hypopygium of male.  
 12. *Hydrophorus minimus*, new species, fore femora of male.





DOLICHOPOD FLIES FROM ALASKA

FOR EXPLANATION OF PLATE SEE PAGE 18

