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NORTH AMERICAN SPECIES OF THE SUBGENERA  
OPACIFRONS DUDA AND PTEREMIS RONDANI  
OF THE GENUS LEPTOCERA OLIVIER,<sup>1</sup>  
(DIPTERA, BORBORIDÆ)

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INTRODUCTION.

The subgenus *Opacifrons* Duda is comparatively small and contains but a few North American species. In none of the species are the individuals abundant. Some of the species are represented by a single or a few specimens.

The subgenus *Pteremis* Rondani is represented by but three North American species. The characters in this subgenus are so striking that there is a question whether *Pteremis* should be classed as a subgenus as Dr. O. Duda has done, or whether it should be classed as a genus as was done by Rondani.

This paper is one of a series of papers on the North American species of the Family Borboridæ.

**Opacifrons Duda.**

Duda: Abahnd. Zool-botan. Ges. Wien., X. I. 28 (1918).

Frontal triangle opaque; preapical bristle usually absent; apical bristle always absent; hind tibiæ uniformly short hairy; first section of costa more or less densely short hairy; last section of third vein straight or gently curved like letter S; usually not more than three pairs of dorsocentral bristles, the anterior pair not convergent; posthumeral bristles usually absent; scutellum with four marginal bristles.

*Genotype* — *O. coxata* Stenh. by present designation.

<sup>1</sup>Contribution from the Division of Entomology of the Agricultural Experiment Station, State College of Washington.

Species of *Opacifrons* Duda.

1. Preapical bristle present in the female, absent in the male... 2  
    Preapical bristle absent in both sexes..... 4
2. Second section of costa distinctly longer than third . . . . . 3  
    Second and third sections of costa equal or nearly so . . . . . 5
3. Wings with dark infuscations along all veins with exception  
    of last section of third; front with three silvery pollinose  
    areas located as follows; one on each side and one directly  
    in front of the ocellar tubercle; dorsocentral bristles in  
    three pairs; acrostichal bristles distinct; halteres yellow  
    Fig. 1.....*grandis* n. sp.  
    Wings clear; veins not so marked; front without such  
    markings..... 4
4. Front, face and cheeks black; interfrontal bristles in four  
    pairs, the anterior pair weak; orbital setulæ strong, as  
    strong as the anterior pair of interfrontal bristles; wings  
    clear; veins black; legs black; outer crossvein below  
    apical third of last section of second vein; halteres yellow.  
    Fig. 10.....*sciaspidis* n. sp.  
    Cheeks brownish yellow; legs brownish yellow; outer cross-  
    vein below middle of last section of second vein; smaller  
    species. 1.5 mm.....*cartagensis* Mall.
5. Lower front, anterior margin of epistome and anterior portions  
    of cheeks yellowish; face fuscous; interfrontal bristles in  
    three pairs, all three pairs cruciate; wings browned, veins  
    blackish; notum opaque, brownish-black; acrostichal  
    bristles distinct; halteres yellow. Fig. 6.*cælobata* n. sp.  
    Lower front opaque black; face and cheeks yellow; inter-  
    frontal bristles in four pairs, the upper and lower reduced,  
    the middle two pairs cruciate; notum slightly to distinctly  
    shining black; acrostichal bristles weak; wing veins pale;  
    halteres fuscous. Fig. 8.....*pellucida* n. sp.

6. Second section of costa longer than third; face, cheeks, and two spots on front silvery pollinose; notum glossy black; acrostichal setulæ very short; hind metatarsi one-half as long as second joint; abdomen piceous, hind margins of segments narrowly yellowish; halteres whitish. Fig. 4. . . . . *wheeleri* n. sp.
7. Lower front reddish; interfrontal bristles not cruciate, the lower pair weaker than the others; last section of third vein slightly curved up; face and cheeks black or grayish; second section of abdomen as long as the next two. Fig. 7. . . . . *coxata* Stenh.  
Entire front black; face and cheeks yellow or with the posterior portion of cheeks blackish; lower two pairs of interfrontal bristles cruciate; second segment of abdomen but little longer than third. Fig. 9. . . . . *convexa* n. sp.

***Limosina (Opacifrons) grandis* n. sp. (Fig. 1.)**

Subshining black. Front decidedly convex, opaque, almost twice as broad as deep; the divergent stripes velvety black; setigerous stripes and frontal triangle slightly silvery pollinose; vertex with a distinct silvery pollinose spot on each side and one directly in front of ocellar triangle; fronto-orbital bristles nearly uniform in size; upper two orbital setulæ bristle-like, as strong as the upper pair of interfrontal bristles; interfrontal setæ bristle-like, in three pairs, at right angles to the interfrontal rows; face gray dusted, slightly carinate; clypeus broadly visible from in front; cheeks silvery pollinose; at its narrowest point, one-third as high as eye; buccæ with a long upcurved outer bristle and three small setæ; oral margin with a row of long hairs; antennæ with third joint rounded, much larger than second and with minute whitish pubescence; arista three times antennal length with rather long pubescence. Mesonotum with three pairs of dorsocentral bristles in widely divergent rows; acrostichal setulæ strong, in eight rows between the anterior pair and in four rows between the posterior pair of dorsocentral bristles; scutellum triangular; marginal bristles four;

pleuræ opaque black; sternopleuræ with as very strong posterior and a rather weak anterior bristle. Legs piceous; coxæ and trochanters silvery pollinose; knees fuscous; front femora with a row of long hairs on its anterior side, middle femora with a row of seven strong anterior preapical setæ; middle tibiæ with five extensor, two on basal third and three on apical third, and two flexor bristles, one at middle and one near apex; (preapical bristle absent in male) hind tibiæ without marcochaetæ, hind metatarsi thickened, one-half as long as the much thinner second joint. Wings slightly browned, with heavy black markings along all veins with the exception of the third vein; veins black; costa ending slightly beyond third vein; first section short, ciliate, with two basal bristles, equal to third and three-fourths as long as second; penultimate sections of third and fourth veins subequal, one-third as long as last section of second vein and two and one-half times outer crossvein, third vein slightly bent forward, then backward and again forward on last section, and ending near wing-tip; fourth vein traceable to wing-margin, fifth vein produced a short distance beyond outer cross vein; discal cell broad at middle and narrowed at outer crossvein. Abdomen opaque, hairy, second segment a little longer than the others. Halteres yellow.

Length 4 mm.

*Type*.—Female; Portland, Oregon. Aug. 20, 1909. (Melander).

*Paratypes*.—Three specimens from Adna, Lake Cushman, and Quilcene, Wash. (Melander).

**Leptocera (Opacifrons) sciaspidis** n. sp. (Fig. 10).

Shining black; Front two times as broad as deep, slightly convex; setigerous stripes and frontal triangle slightly gray dusted, the divergent stripes velvety black; fronto-orbital bristles strong, widely divergent, the lower three-fourths as long as upper; orbital setulæ not extending above the upper fronto-orbital bristle, the upper three, bristle-like, the upper most setæ nearly as strong as the posterior pair of interfrontal bristles;

interfrontal bristles strong, in four pairs, the anterior pair reduced, the other three increasing in size anteriorly, with the third pair from above, cruciate; antennæ prominent, second joint with strong bristles, third joint oval, larger than second; arista two and one-half times antennal length, its pubescence short and dense; face concave in profile, slightly gray dusted; carina developed between the antennæ only; clypeus broadly visible from in front; cheeks gray dusted, one-fourth eye height; buccæ with a strong anterior upcurved bristle and three setæ; oral setulæ hair-like. Mesonotum with three distinct pairs of dorsocentral bristles, increasing in size posteriorly; acrostichal setulæ arranged in six rows between the anterior pair of dorsocentral bristles, the middle rows longer than the others; post-humerals absent; scutellum large, triangular, marginal bristles four, the posterior pair very long; upper sternopleuræ with two anterior setæ and a long posterior bristle. Legs with knees browned; front femora with five hair-like extensor and four preapical flexor bristles, middle femora with six preapical anterior bristles; middle tibiæ with five extensor, two before middle and two on apical third, and two flexor bristles, one at middle and one at near apex (preapical bristle absent in male); middle metatarsi with a flexor bristle at basal third and a number of apical bristles; hind tibiæ with a row of hair-like bristles on outer side; first and second joints of hind tarsi with a brush of stiff hairs beneath; hind metatarsi one-half as long as next joint. Abdomen broad, shorter than thorax; second segment one and one-half times as long as third; hypopygium moderately large and hairy. Wings slightly browned; second section of costa distinctly longer than third; first section weakly bristly and equal to third; penultimate section of third and fourth veins subequal and two times outer crossvein; last section of third vein nearly straight; fourth vein traceable to wing-margin; fifth vein produced but little beyond outer crossvein. Halteres white. Length: 2.5-3mm.

*Type*.—Female; Friday Harbor. June 25, 1909. (Melander)

*Paratypes*.—Fifty-one specimens of this species, distributed as follows:

Washington: Glenwood, Mt. Rainier, Husum, Friday Harbor, Olympia, Adna, Mt. Constitution, Kettle Falls, Roche Harbor, Wawawai, Nahcotta (Melander).

Idaho: Potlatch, Moscow, Juliaetta, Kendrick, (Melander); Troy (Cresson).

**Leptocera (Opacifrons) cartagensis** Malloch.

Malloch; Tran. Am. Ent. Soc. 40. 17 (1914). (*Leptocera*)  
Costa Rica.

**Leptocera (Opacifrons) caelobata** n. sp. (Fig. 6).

Opaque black. Front for the most part reddish, changing to brown or black toward occiput; bristles strong; fronto-orbitals divergent; the lower three-fourths as long as upper; orbital setulæ weak; interfrontal bristles in three pairs, the upper pair touching, the lower two pairs longer and cruciate; face and cheeks pale brown, with gray pollen; face concave in profile; cheek at vibrissal angle two-fifths as high as eye, buccal bristles in two pairs, the anterior pair quite strong; oral setæ long, hair-like; second joint of antennæ with strong apical bristles; third joint rounded; arista two times antennal length, microscopically pubescent. Mesonotum with three pairs of dorsocentral bristles; discal setulæ strong, middle acrostichals prominent, posterior pair bristle-like; scutellum triangular; disc bare, marginal bristle four; pleuræ with some grayish pollen; pleural sutures reddish, sternopleuræ with a single posterior bristle. Legs hairy, coxæ and trochanters fuscous; middle femora with six antero-apical bristles, the apical one very strong; middle tibiæ with five extensor bristles, a pair at basal third and three on apical third; hind metatarsi two-thirds as long as second joint. Wings infumated, veins black; costa produced to end of third vein, second section as long as third; basal section of third vein two times outer crossvein and a little longer than distance between crossveins, third vein straight on its last section, or slightly curved up at apex, ending near wing-

tip, vein four faintly produced to wing-margin; vein five produced one-third distance from outer crossvein to wing-margin; discal cell broad. Abdomen cylindrical, very short, but little more than half as long as thorax; second segment as long as third. Halteres yellow. Length: 3 mm.

*Type*.—Male: Pullman, Wash. June 10, 1911. (Melander.)

*Paratype*.—A single specimen from Pateros, Wash. (Melander).

**Leptocera (Opacifrons) pellucida** n. sp. (Fig. 8.)

Opaque black. Front convex, two-thirds as broad as deep, slightly gray dusted except on the divergent stripes and lower orbital stripes; lower fronto-orbital bristle three-fourths as long as upper; orbital setulæ microscopic; interfrontal bristles in four pairs, the anterior and posterior pairs weak, the middle two pairs long and cruciate; interfrontal setulæ microscopic; face and cheeks yellow; face deeply concave in profile; anterior margin of epistome slightly projecting; clypeus not visible from in front; cheek at vibrissal angle one-fourth as high as eye; oral setulæ weak, hair-like; buccal setulæ in three pairs, the anterior pair stronger than the others, bristle-like; antennæ fuscous, third joint oval, equal in length to second; arista two and one-half times antennal length, pubescence microscopic. Mesonotum with three pairs of dorsocentral bristles, increasing in size posteriorly; discal setulæ in six rows between anterior pair and two rows between posterior pairs of dorsocentral bristles; scutellum triangular; marginal bristles four; pleuræ with gray pollen; pleural sutures reddish; sternopleuræ with a strong posterior bristle and two small anterior setæ. Legs brown; front femora with hair-like bristles; middle trochanter with a weak bristle; middle femora with five antero-preapical bristles, increasing in size apically, middle tibia with two pairs of extensor bristles, one on basal-fourth and one on apical fourth; hind metatarsi two-thirds as long as next joint. Wings hyaline; veins brown; costa extended slightly beyond third vein, second and third sections subequal; discal cell short; outer crossvein nearly as

long as distance between crossveins; basal section of third vein less than one-half as long as last section of second vein and less than two times as long as second section of fourth vein; fourth vein not reaching wing-margin; fifth vein extending beyond outer crossvein. Abdomen as long as thorax, fuscous, margins of segments lighter; second segment one and one-half times third. Halteres fuscous.

Length: 2 mm.

*Type*.—Male; Oroville, Wash. (Melander).

*Paratypes*.—Seven specimens from the following localities:

Washington: Oroville, Pullman (Melander).

British Columbia: Bear Lake (U. S. N. M.)

***Leptocera (Opacifrons) wheeleri* n. sp. (Fig. 4).**

Front olivaceous black; ocellar triangle bordered on each side by a conspicuous lunate silvery-pollinose spot, lower frontal triangle depressed and with sloping sides, because of the sloping sides the depressed portion of the frontal triangle appears to have a different color than the rest of the front; bristles not very conspicuous; interfrontal bristles in five pairs, increasing in size anteriorly to middle pair, then decreasing, but not cruciate; face and cheeks silvery pollinose; face shallowly concave in profile; oral vibrissæ short; bucca with a distinct anterior bristle and a few posterior setæ; oral setulæ distinct; antennæ moderate in size, third joint with whitish pubescence; arista two and one-half times antennal length, microscopically pubescent. Thorax and scutellum glistening black with an opaque brownish pollinose stripe between the base of the wings and the humeri; dorsocentral bristles in four pairs; acrostichal setulæ very fine and short, arranged in eight rows between the anterior pair of dorsocentral bristles; scutellum trapezoidal, blunt at tip; marginal bristles four; pleuræ with the exception of the extreme upper portion, white-pollinose; upper sternopleuræ with a strong posterior bristle and minute anterior setæ. Legs black; tarsi brown; femora and tibiæ slightly gray dusted; all



the bristles somewhat reduced; middle femora with a single preapical anterior setæ, middle tibiæ with four extensor, one on basal third, and two on apical fourth, and no flexor bristles, middle tarsi with a small seta on flexor surface near base; hind metatarsi as thick as tibiæ at apex and one-half as long as the much more slender second joint. Wings hyaline or but slightly yellowish; veins brown; costa extending slightly beyond third vein, second section one and one-fourth times as long as third; second vein ending beyond the outer crossvein; basal section of third vein one-third as long as the last section of second vein and nearly two times outer crossvein; last section of third vein gently curved, ending a little before wing-tip; fourth vein reaching margin of wing; fifth vein produced considerably beyond outer crossvein. Abdomen piceous, flat oval; hind margins of segments narrowly yellowish; second segment not much longer than third. Halteres whitish. Length: 2 mm.

*Type*.—Female; Austin, Texas; Oct. 29, 1899 (Melander).

*Paratypes*.—Two specimens from Illinois (Ill. Univ.)

**Leptocera (Opacifrons) coxata** Stenhammar (Fig. 7).

Stenhammar: Coprom. Scand. 396 (138) (1855). (*Limosina*).

Duda: Abhand. Zool.-Botan. Ges. Wien. X. I. 85 (1918). (*Limosina*).

*Pusio* Zetterstedt: Dipt. Scand. VI. 2496 (1847). (*Limosina*).

*Pumilo* Zetterstedt: Ins. Lapp. 771 (1838). (*Limosina*).

*Septentrionalis* Dahl: Berl. Sb. Ges. Natf. Freunde. (1909). (*Limosina*).

*Nigricornis* Dahl; Berl. Sb. Ges. Natf. Freunde. 375 (1909). (*Limosina*).

Forty seven specimens from the following localities:

Washington: Bellingham, Lake Whatcom, Nahcotta, Lake Cushman, Ilwaco, Granite Falls, Sultan, La Center, Tacoma,

Vancouver, Colby, Dungeness, Pt. Gamble (Melander).

Idaho: Lake Waha (Melander).

Oregon: Salem, Portland (Melander).

California: Berkeley, Muir Woods (Melander).; Stanford Univ. (Aldrich); Redwood City.

British Columbia: Abbotsford (Melander).

**Leptocera (Opacifrons) convexa** n. sp. (Fig. 9).

Opaque black. Front with fronto-orbital, the very narrow interfrontal stripes and the frontal triangle from lower ocelli to frontal lunule, slightly gray dusted, somewhat flat, two-thirds as long as broad; vertical and postorbital bristles moderate; fronto-orbital bristles divergent, the upper but little longer than the lower; orbital setulæ present, the upper two pairs quite distinct; interfrontal bristles in four pairs, the first from above, very weak, the second reaching the median line and the third and fourth pairs longer and cruciate; one pair of interfrontal setulæ present; face and cheeks yellow, pollinose; cheek black toward occiput, narrow, from mouth margin to lower margin of eye, equal to one-fourth eye-height; oral vibrissæ long; oral setulæ weak, in one pair; face concave in profile; epistome slightly projecting; clypeus very narrowly visible from in front; antennæ divergent, third joint rounded; arista three times antennal length, long pubescent. Mesonotum and scutellum grayish dusted; mesonotum with a single pair of dorsocentral bristles; acrostichal setulæ rather weak, arranged in six rows between the dorsocentrals, the posterior pair of middle acrostichals longer than the others; pleural sutures yellow to reddish; sternopleuræ with two bristles, the posterior longer than the anterior; scutellum quadrangular; disc with four nearly uniform bristles on margin. Legs hairy; coxæ, trochanters and tarsi infusate; middle femora with a row of five anterior preapical bristles, the one nearest apex much the longest, middle tibiæ with no flexor and three extensor bristles arranged as follows: one at basal third, one at apical third, and one on apical fifth, hind metatarsi three-fifths as long as second

joint. Wings slightly browned; veins brown; costa ending beyond third vein, first and second sections black, second section three-fifths as long as third; last section of second vein two and one-half times as long as basal section of third vein; penultimate sections of third and fourth veins subequal and twice the length of the outer crossvein; last section of third vein straight and ending a little before wing-tip, last section of fourth vein evanescent and not reaching wing-margin; fifth vein traceable one-half way to wing-margin from outer crossvein. Abdomen cylindrical; second segment of abdomen one and one-fourth times as long as third; hypopygium large. Halteres with stem and tip of knob yellow. Length: 1 mm.

*Type*.—Male, Bovill, Idaho (Melander).

*Paratypes*.—Five specimens from the following localities:

Washington: Sultan, Mt. Constitution, Tacoma, (Melander).

Idaho: Priest Lake (Melander).

### **Pteremis Rondanis.**

Rondani: Prodr. I. 124 (1856)., Coprom. Bull. Soc. Ent. Ital. XII 41 (1880).

Duda: Abhand. zool -bot. Ges. Wien X. I. 28 (1918).

Head large, broader than thorax; wings rudimentary; costa extending considerably beyond third vein; outer crossvein absent; last section of third vein straight or but slightly curved up; preapical bristle present; middle tibiæ with a number of minute apical bristles, never with a single strong, apical bristle; middle metatarsal bristle absent.

*Genotype*.—*P. nivalis* Haliday.

### *Species of Pteremis Rondani.*

1. Wings very short not reaching beyond the second abdominal segment; second vein incomplete, not reaching costa; face and cheeks piceous, concave in profile; shining black species. Fig. 3. . . . . *parvipennis* n. sp.  
Wings longer, reaching the fourth abdominal segment. . . . . 2

2. Front, face and cheeks entirely ferruginous or yellowish; second section of costa less than one-half as long as third; halteres slightly reduced, fuscous. Fig. 5.....

*flavifrons* n. sp.

Front, face and cheeks for the most part black; face slightly carinate, concave in profile; second section of costa a little shorter than third; halteres considerably shortened, yellow. Fig. 2.....*unica* n. sp.

**Leptocera (Pteremis) parvipennis** n. sp. (Fig. 3).

Shining black. Front almost twice as broad as deep; divergent stripes opaque; bristles of front and vertex moderately strong; interfrontal bristles in five pairs, the upper two and the lower pair very much reduced, the other two considerably longer but not cruciate; antennæ piceous; arista two and one-half times antennal length, with short dense pubescence; face and cheeks piceous; face carinate between the antennæ only; epistome curved up on anterior margin; clypeus broadly visible from in front; cheeks a little less than one-third as high as eye, when measured at vibrissal angle; vibrissæ strong. Mesonotum and scutellum with some brownish pollen; dorsocentral bristles in two pairs, the anterior pair rather weak; acrostichal setulæ few, in five irregular rows between the anterior pair of dorsocentral bristles; scutellum triangular with apex truncate; marginal bristles four, the posterior pair much longer than the others; pleuræ reddish below; upper sternopleuræ with a strong bristle. Legs with coxæ, trochanters, knees and tarsi reddish; front femora with some long hairs, middle tibiæ with two small extensor bristles on apical third; front and hind tarsal joints slightly thickened; hind metatarsi as thick as apex of tibiæ and two-thirds as long as next joint. Wings very short, not reaching beyond the second abdominal segment, brownish; veins heavy, piceous; costa ciliate its entire length and ending at third vein; second vein not reaching wing-margin and ending at a point opposite anterior crossvein; posterior crossvein absent. Abdomen very broad; dorsum hairy; segments equal. Halteres considerably reduced. Length 1.5 mm.

*Type*.—Female; Kukak Bay, Alaska. July 4, 1899, (Kincaid).

*Paratype*.—A single specimen from the same collection.

***Limosina (Pteremis) flavifrons* n. sp. (Fig. 5).**

Shining black species with head almost entirely reddish yellow. Front rather flat, three-fourths as deep as broad; bristles black; vertical and occipital bristles strong; interfrontal bristles very much reduced, in three pairs; antennæ widely divergent, slightly browned, second and third joints nearly equal; arista pubescent, three times as long as antennæ; face tuberculate between and below antennæ, slightly concave in profile near anterior margin; clypeus broadly visible from in front; cheeks one-third as high as eye when measured at vibrissal angle; oral vibrissæ well developed; buccal and oral setulæ minute; eyes piceous, two-thirds as wide as high. Mesonotum with two pairs of dorsocentral bristles, posterior pair of middle acrostichals longer than the others; scutellum trapezoidal; marginal bristles four; pleuræ opaque piceous; upper sternopleuræ with a rather distinct bristle. Legs piceous with front coxæ, front and middle trochanters, front femora and all tarsi ferruginous; front femora slightly swollen; middle femora with a single preapical anterior bristle, middle tibiæ with three extensor, two on basal third and one on apical third; hind metatarsi but little thickened, two-thirds as long as next joint. Wings slightly smoky extending a little beyond the fourth abdominal segment; veins brown; costa setulose on first section, second section less than one-half as long as third; second vein reaching margin of wing at a point slightly anterior to the inner crossvein; basal section of third vein slightly longer than last section of second vein; inner crossvein very narrow; fourth vein produced a short distance beyond inner crossvein; outer crossvein absent; last section of third vein straight, ending at wing-tip. Abdomen longer than thorax; segments equal; dorsum minutely pubescent. Halteres fuscous, slightly reduced. Length: 1.25 mm.

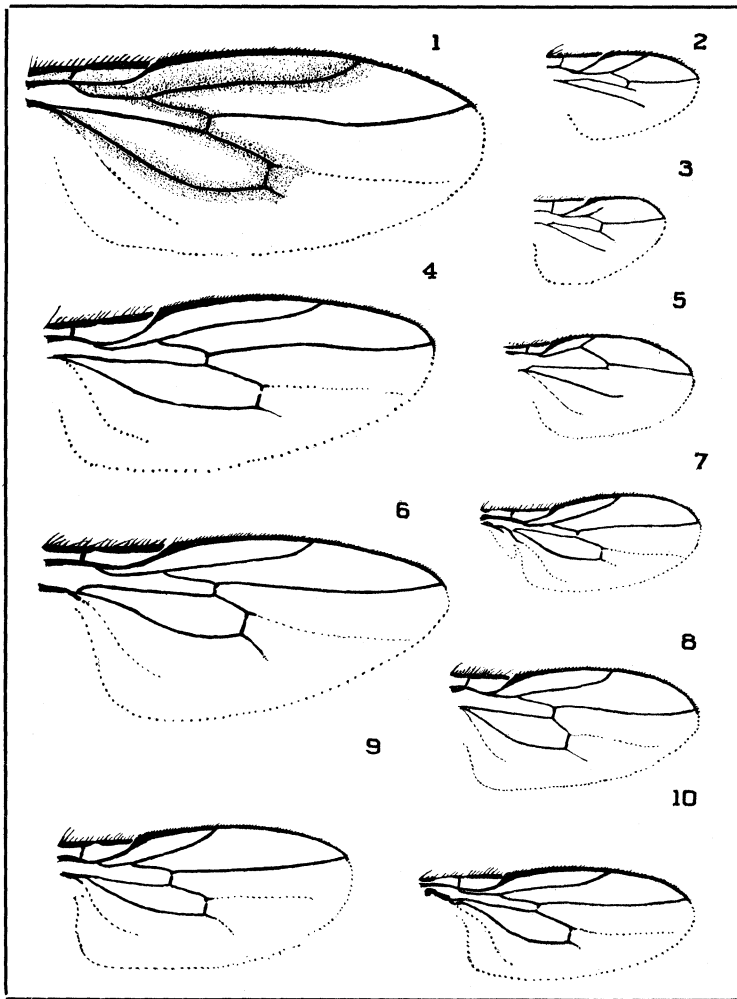
*Holotype*.—Female: Falls Church, Virginia, Dec. 29, (Barber.) This specimen has been returned to the U. S. National Museum.

**Leptocera (Pteremis) unica** n. sp. (Fig. 2).

Subshining black. Front slightly reddish, much broader than deep; the divergent stripes, divided by the broad interfrontal stripes, opaque velvety black. (The poor condition of the head of this specimen makes it impossible to give the location of the bristles), third joint of antennæ reddish; face slightly carinate, concave in profile, with a slight reddish tinge; epistome curved up on its anterior margin; clypeus broadly visible from in front; cheeks at vibrissal angle, nearly one-half as high as eye; vibrissæ much reduced. Mesonotum with three pairs of dorsocentral bristles, the anterior two pairs very much reduced and rather indistinct; acrostichal bristles few, in five irregular rows between the anterior pair of dorsocentrals; scutellum triangular; disc bare; marginal bristles four; pleuræ reddish; upper sternopleuræ with a prominent bristle. Legs with coxæ, and trochanters yellowish; knees, apices of tibiæ and tarsi reddish; bristles of legs very much reduced; hind metatarsi thickened, two-fifths as long as next joint. Wings brownish, reaching to the middle of fourth abdominal segment; veins brown; costa ciliate for its entire length and ending at third vein, second section distinctly shorter than third; last section of second vein twice as long as basal section of third vein; inner crossvein narrow; outer crossvein absent. Abdomen glossy black, rather long and narrow, tapering posteriorly. Halteres considerably reduced, yellow. Length: 1.25 mm.

*Holotype*.—Female; Yellowstone National Park, Wyo. (U. S. N. M.)

This single specimen has been returned to the National Museum.



SPULER—OPACIFRONS AND PTEREMIS.

Fig. 1. *Opacifrons grandis* n. sp.; Fig. 2. *Pteremis unica* n. sp.; Fig. 3. *Pteremis parvipennis* n. sp.; Fig. 4. *Opacifrons wheeleri* n. sp.; Fig. 5. *Pteremis flavifrons* n. sp.; Fig. 6. *Opacifrons caelobata* n. sp.; Fig. 7. *Opacifrons coxata* Stenh.; Fig. 8. *Opacifrons pellucida* n. sp.; Fig. 9. *Opacifrons convexa* n. sp.; Fig. 10. *Opacifrons sciaspidis* n. sp.



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