Described from numerous alate and apterous viviparous females. Color notes made from fresh specimens, measurements from specimens mounted in balsam.

All specimens were collected by the writer in the grounds of the Florida Agricultural Experiment Station at Gainesville.

In addition to the writer’s collection, cotypes are in the collections of the Florida Agricultural Experiment Station, of the U. S. National Museum and of Mr. G. F. Knowlton.

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**A NEW JUNIPER APHID FROM UTAH**

**WITH NOTES ON A FEW OTHER SPECIES**

**PART II**

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**Chromaphis juglandicola** (Kaltenbach)

This small yellow aphid occurs on the underside of the leaves of English walnut, *Juglans regia* L. In Utah, it ordinarily occurs in small numbers, but during the summers of 1923 and 1925 it occasionally became abundant enough at Brigham City and at Salt Lake City to cause a slight smutting of the foliage.

**Euceraphis flavida** Davidson

This aphid was collected in American Fork Canyon, Utah, on July 6, 1925. The winged female produces a woolly secretion over the body, and feeds on the underside of the leaves of the alder, *Alnus tenuifolia* Nutt. This collection was made at an elevation of 7000 feet.

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Fig. 2.—*Euceraphis flavida* Davidson.—A, anal plate; B, cauda; C, coricine; D, base of third antennal, showing sensoria; E, sixth antennal, all of alate female.
Alate vivipara.—Color whitish-yellow; covered with whitish waxy material; size 3 mm. long; rostrum short, not reaching second coxae; antennal tubercles moderately developed; antennae long and slender, with distal ends of III, IV, V, and all of VI dusky; antennal I, 0.13 mm. long, and rather thick; II, 0.07 mm.; III, 1.2 mm. long, and armed with 5 to 6 transversely oval sensoria on basal fourth of segment; IV, 0.75 mm.; V, 0.62 mm.; VI, 0.34 + 0.22 mm.; legs long and slender; hind tibia 2 mm. long; front wings fairly large, with media twice branched, stigma rather pale, veins slender and tan; hind wings with the media and cubitus present, veins pale; prothorax with a longitudinal dusky band on either side of the median line extending the length of this segment; abdomen elongate, narrow, and armed with dusky dorso-lateral tubercles on segments 2, 3 and 4, and with a smaller, lighter-colored pair on the segment back of the cornicles; cornicles blackish-brown, with broadly swollen bases; cauda with slight constriction but not knobbed; anal plate bilobed but not deeply divided.

Fig. 3.—Callipterus robinæ Gillette.—A, front wing; B, anal plate; C, cornicle; D, lateral tubercle; E, cauda; F, antenna; G, cornicle. All drawings of alate female.

Callipterus robinæ Gillette

This tiny little yellow aphid occurs rather commonly in Utah, feeding on the leaves of locust, Robinia neomexicana Gray. The winged individuals are very active, and either fly or drop at the slightest disturbance.
Alate vivipara.—Color lemon yellow to pale yellow; size 1.5 to 1.7 mm. long; rostrum short, not reaching the second coxae; head rounded in front, with a prominent median ocellus; antennae about the length of the body and pale except distal ends of segments III to VI, which are dusky; antennal III, 0.5 to 0.63 mm. long, and armed with 6 to 10 rather large, transversely oval sensoria, which are situated on the basal half of the segment; IV, 0.29 to 0.38 mm.; V, 0.24 to 0.33 mm.; VI, 0.11 + 0.06 to 0.13 + 0.07 mm.; legs moderately long; front wings with radial sector poorly developed; hind wings with veins rather transparent; cornicles truncate, much larger at base; cauda knobbed; anal plate bilobed.

On July 7, 1925, this aphid was quite abundant at Fillmore, Levan, and Meadow, Utah. Since that time specimens have been collected in Utah at Brigham City, Farmington, Mona, Provo, Salt Lake City, and Tremonton. The writer has also collected this form at Preston, Idaho.

Aphis gregalis Knowlton

This rather common rabbit-brush aphid shows considerable variation as to the length and presence or absence of a bend in the cornicles. In the case of specimens taken at Lehi, the cornicles of both alate and apterous forms range from 0.11 to 0.13 mm. in length and are more noticeably bent in the winged forms. Individuals from Amalga, Smithfield, and Trenton had cornicles ranging in length from 0.11 to 0.19 mm. in the wingless and 0.1 to 0.13 mm. in length in winged forms. With the wingless forms the cornicles were usually slightly bent, but in some cases the cornicles were straight. The same variation occurs in forms from other parts of the state.

This species has been collected in Utah from the following additional localities: Brigham City, Castle Dale, Harper, and Huntington.

Forda olivacea Rohrwer

The dark winged form of this species was collected at Cornish, Utah, on June 17, 1926. The host plant was sage brush, Artemisia tridentata. At Elsinore on July 27, 1927 another winged form was collected on rabbit brush, Chrysothamnus parrani. Both of these plants were probably accidental lighting places for this aphid, rather than regular hosts.

The greenish-yellow wingless females have been collected on grass roots in considerable numbers at Cedar Canyon, Logan, and Logan Canyon, in Utah. The writer also collected this form in Emigration Canyon, Idaho, on June 24, 1925.
The grasses upon which this insect has been collected in Utah include *Bromus marginatus*, *B. ciliatus*, *Eriocoma cuspidata*, *Hordeum* sp., *Phleum alpinum* and *Poa pratensis*.

This species has been reported as occurring on wheat, oats, barley, timothy,¹ and a number of other grasses.

![Image of insect antennae and wing](image)

Fig. 4.—*Forda olivacea* Rohwer.—A, Antenna of alate female; B, antenna of apterous female; C, front wing of alate female.

**Essigella fusca** Gillette and Palmer

A few of these active, small black aphids were collected in Logan Canyon, Utah, on June 23, 1925. Only wingless forms were taken, and these were feeding on the needles of lodgepole pine, *Pinus murrayand*.

**Durocapillata utahensis** Knowlton

On August 16, 1927, the wingless forms of this species were very abundant on rabbit brush, *Chrysothamnus viscidiflorus*, in Emigration Canyon and northeast of Preston. The aphids were heavily attacked by syrphid larvac and ladybird beetles. The tip growth of affected plants was twisted in the manner found typically in Blacksmith Fork Canyon,² in Utah, where this insect commonly occurs.

This aphid presents a peculiar combination of Macrosiphini

and Aphidini characters. In general body form and in the length of antennae, this form resembles the Aphidini. The body hairs, however, are apically enlarged and prominent, the antennal tubercles are somewhat developed, and migration occurs once a year, for distribution rather than having an alternate host relationship. The writer places this form with the Macrosiphini.

**Aphis oregonensis** Wilson

This species was collected at Brigham City, Utah, on May 23, 1927. Winged and wingless forms were present, feeding on sage brush, *Artemisia tridentata*.

Two very peculiar individuals were observed in this collection. The front wings were entirely absent, and apparently had not developed at all, while the hind wings were normal and well-developed.

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**TWO NEW SPECIES OF CEUTHOPHILUS FROM THE SOUTHEASTERN UNITED STATES**

**WITH SYNONYMICAL NOTES ON OTHER SPECIES OF THE GENUS**

(Orth., Tettigon., Rhaphidophorinae)

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The following descriptions and notes are published in advance of a general revision of the genus which I have in preparation, in order that the names may be available for use in a forthcoming list of the Orthoptera of North Carolina. Fuller discussion of the relationships of the new species and of the synonymy here indicated is reserved for the paper in which the results of the completed study will be presented.

Certain terms used in this paper should first be explained. In many—possibly in most—of the species of the genus Ceuthophilus great variation in adult size is found in series from the same locality; especially is this true of the male sex. Not only do the males vary in size, but they show great differences in the relative size, form, and armature of the caudal femora, and to a less extent in the form of caudal tibiae; these differences are correlated to a considerable degree with the size of the body, but not entirely so. In order to facilitate discussion of these